HEUTAGOGIA
JOURNAL OF ISLAMIC EDUCATION
P-ISSN: 2809-7769 | E-ISSN: 2798-3579
Vol. 5, No. 1, June 2025, doi: *https://doi.org/10.14421/hjie.2025.51-03*

Contextual and Project-Based Learning in IPAS Instruction within the Merdeka Curriculum: A Case Study at MI Al-Azhar Muara Pinang

Nikma Ariswari[1], Deka Zulysa[2], Muhammad Dhori[3]
[123]Institut Agama Islam Pagar Alam, Indonesia
nikmaasrwri@gmail.com[1], dekazullysa@gmail.com[2], dhorim7@gmail.com[3]

Article Info
Received:
2024-11-27
Revised:
2025-05-23
Approved:
2025-06-10
Keywords:
Merdeka Curriculum, Project-Based Learning, IPAS Education

OPEN ACCESS

Abstract: *This study explores the implementation of the Merdeka Curriculum in the teaching of IPAS (Integrated Natural and Social Sciences) for fifth-grade students at MI Al-Azhar Muara Pinang. Employing a qualitative case study approach, data were gathered through participatory observation, semi-structured interviews, documentation, and literature review over a four-week period. Thirty students and one class teacher participated in the study. Findings reveal that the integration of project-based activities, such as the photosynthesis experiment, successfully fostered students' scientific curiosity, collaborative skills, and conceptual understanding. These activities aligned with constructivist and experiential learning principles, allowing students to internalize knowledge through direct engagement. Nevertheless, challenges remain, particularly regarding teacher reliance on conventional lecture-based methods and limited media design skills. To address these issues, the study recommends leveraging digital resources, such as educational videos, to enhance learning engagement and support teachers in delivering interactive content. The study highlights the practical benefits of the Merdeka Curriculum in reducing teacher workload and enhancing student motivation, while also emphasizing the need for continuous professional development to optimize curriculum implementation. Limitations include the study's restricted geographic scope and reliance on qualitative data. Future research should consider comparative studies across multiple schools and incorporate mixed methods to deepen the analysis of learning outcomes.*

Abstrak: Penelitian ini mengkaji penerapan Kurikulum Merdeka dalam pembelajaran IPAS (Ilmu Pengetahuan Alam dan Sosial Terpadu) untuk siswa kelas V MI Al-Azhar Muara Pinang. Dengan menggunakan pendekatan studi kasus kualitatif, data dikumpulkan melalui observasi partisipatif, wawancara semi-terstruktur, dokumentasi, dan telaah pustaka selama periode empat minggu. Sebanyak tiga puluh siswa dan satu guru kelas berpartisipasi dalam penelitian ini. Temuan penelitian menunjukkan bahwa integrasi kegiatan berbasis proyek, seperti percobaan fotosintesis, berhasil menumbuhkan keingintahuan ilmiah, keterampilan kolaboratif, dan pemahaman konseptual siswa. Kegiatan-kegiatan ini selaras dengan prinsip-prinsip pembelajaran konstruktivis dan eksperiensial, yang memungkinkan siswa untuk menginternalisasi pengetahuan melalui keterlibatan langsung. Meskipun demikian, tantangan tetap ada, khususnya terkait ketergantungan guru pada metode berbasis ceramah konvensional dan keterampilan desain media yang terbatas. Untuk mengatasi masalah ini, penelitian ini merekomendasikan pemanfaatan sumber daya digital, seperti video edukasi, untuk meningkatkan keterlibatan pembelajaran dan mendukung guru dalam menyampaikan konten interaktif. Studi ini menyoroti manfaat praktis Kurikulum Merdeka dalam mengurangi beban kerja guru dan meningkatkan motivasi siswa, sekaligus menekankan perlunya pengembangan profesional berkelanjutan untuk mengoptimalkan implementasi kurikulum. Keterbatasan studi ini mencakup cakupan geografis yang terbatas dan ketergantungan pada data kualitatif. Penelitian di masa mendatang sebaiknya mempertimbangkan studi perbandingan

di berbagai sekolah dan menggabungkan metode campuran untuk memperdalam analisis hasil pembelajaran.

1. Introduction

Education in the era of advanced globalization requires students to have the ability to think creatively in order to successfully show maximum learning outcomes. It involves planning and a series of specific actions to ensure the optimal and efficient achievement of learning objectives by educators.[1] The curriculum is a systematic design that contains objectives, content, methods, and evaluation as a guide for education in formal institutions. In addition to organizing material, the curriculum also designs learning experiences to develop learner competencies integrally, which include intellectual, emotional, and physical skills. As a strategic instrument, the curriculum improves the quality of education, adapts learning to the times, and shapes students according to their potential and characteristics at every level of education.[2]

Curriculum implementation is the stage of implementing a curriculum program that has been planned previously.[3] Furthermore, the program is tested in implementation and management in the field, with continuous adjustments to the real conditions and characteristics of students, both in terms of intellectual, emotional, and physical aspects.[4] In this regard, Merdeka Curriculum is positioned as a form of innovation that provides flexibility to teachers in determining learning materials according to the needs, interests, and potential of students. This curriculum also emphasizes strengthening the character of students, in line with the theme promoted by the government. With a more adaptive method, Merdeka Curriculum allows learning and teaching activities to be more interesting, effective, and able to encourage curiosity in the learning process of students.[5]

The launch of an innovative program called Belajar Merdeka was carried out by the Minister of Education, Culture, Research and Technology, Nadiem Anwar Makarim. This program provides space for educators to develop more flexible and creative ways of learning, tailored to the needs and interests of students.[6] As a follow-up, the Minister of Education, Culture and Research Regulation Number 12 of 2024 officially makes the Merdeka Curriculum the main reference and structure of the curriculum for all educational units in Indonesia so that its application applies nationally.[7]

The Minister of Education and Culture set the focus of Merdeka Assessment and Personality Survey, providing a Learning Program Policy consisting of four main points.

---

[1] Restu Mufanti, Don Carter, and Neil England, "Outcomes-Based Education in Indonesian Higher Education: Reporting on the Understanding, Challenges, and Support Available to Teachers," *Social Sciences & Humanities Open* 9 (2024): 100873.

[2] Nilay T Bümen and Mona Holmqvist, "Teachers' Sense-Making and Adapting of the National Curriculum: A Multiple Case Study in Turkish and Swedish Contexts," *Journal of Curriculum Studies* 54, no. 6 (2022): 832–51.

[3] Tiara Nurhayati et al., "Analisis Teori Belajar Kontruktivisme," *Jurnal Pendidikan Guru Madrasah Ibtidaiyah Al-Amin* 4, no. 1 (2025): 161–75.

[4] Irfanaeka Azzahra, Aan Nurhasanah, and Eli Hermawati, "Implementasi Kurikulum Merdeka Pada Pembelajaran IPAS Di SDN 4 Purwawinangun," *Didaktik : Jurnal Ilmiah PGSD STKIP Subang* 9, no. 2 (2023): 6230–38, doi:10.36989/didaktik.v9i2.1270.

[5] Faridahtul Jannah, Thooriq Irtifa'Fathuddin, and Putri Fatimattus Az Zahra, "Problematika Penerapan Kurikulum Merdeka Belajar 2022," *Al Yazidiy: Jurnal Sosial Humaniora Dan Pendidikan* 4, no. 2 (2022): 55–65.

[6] Abdul Wafi and Umarul Faruk, "Pesantren Earlier Dalam Implementasi Kurikulum Merdeka: Studi Kasus Di Pondok Pesantren Mambaul Ulum Bata Bata," *Heutagogia: Journal of Islamic Education* 3, no. 1 (2023), doi:doi.org/10.14421/hjie.2023.31-04.

[7] Kemendikbud, "Kurikulum Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, Dan Jenjang Pendidikan Menengah," *Permendikbud Ristek Nomor 12 Tahun 2024*, 2024, 1–26.

These changes include replacing USBN with school assessments, replacing national exams with minimum abilities, giving more flexibility to teachers in developing lesson plans, and increasing the flexibility of PPDB. The main goal is to realize the next generation of noble and quality people. In the realm of national education, the curriculum undergoes changes to find an accurate solution to accommodate the needs of education that it accepts. [8]

The independent curriculum has the advantage of focusing on accuracy and involvement, opening up greater opportunities for SD/MI students to participate in the exploration of actual materials, providing support for the development of the character of SD / MI students by using competencies within the Pancasila profile framework, freely and simply and in depth without restrictions.[9] However, in the research made by Zainul Anwar and Raudhatul Jannah, it is suggested that the implementation of the independent curriculum also has weaknesses, namely the unoptimal readiness of teachers, system planning that has not been carefully prepared, and the lack of adequate manpower. [10]

The merger of Science (Science of Nature) and Social Studies (Social Science) subjects in Merdeka Curriculum focuses on achieving a comprehensive education, integrating various disciplines, and relevant to real life.[11] At this stage students tend to think simply and thoroughly, so the merging of these subjects is expected to help them organize aspects of the natural and social environment holistically.[12] In a previous study conducted by Denada Viqri et al, it was revealed that teachers experienced obstacles in compiling and selecting contextual problems which often resulted in students experiencing problems when working on science problems. In addition, students tend to be reluctant to ask questions when they do not understand the material, coupled with the perception that science is a subject that requires deep understanding.[13] Therefore, this study will examine the implementation of Merdeka Curriculum for IPAS subjects in elementary schools, placing teachers as the main figures in running the curriculum in each school. Teachers must ensure that the methods chosen are in accordance with the students' cognitive development stage and support the achievement of an effective teaching and learning process. [14]

In the implementation of IPAS learning in the independent curriculum, adjustments must be made first and cannot be applied perfectly right away. [15] There are many things that teachers must learn and plan in order to study and examine the extent to which teachers have implemented the Merdeka Curriculum at school. The implementation of the Merdeka Curriculum, especially in IPAS subjects, needs special attention to find out the limitations that occur during its implementation. The intended

---

[8] Luki Emiliya Hidayat, Yazid Basthomi, and Rida Afrilyasanti, "Exploring Secondary School Teachers' Creativity in Differentiated Instruction (DI) Practices across Indonesian EFL Classrooms," *Thinking Skills and Creativity* 53 (2024): 101620.

[9] & Andaryani T. Setioyuliani, A., "Peran Guru Dalam Pembelajaran Berbasis Proyek Di Kurikulum Merdeka," *Mentari: Journal of Islamic Primary School* 5, no. 3 (2023): 88–102.

[10] Zainul Anwar and Raudhatul Jannah, "Telaah Kurikulum 13 Dan Kurikulum Merdeka Di SD/MI," *Mentari: Journal of Islamic Primary School* 1, no. 3 (2023): 151–62.

[11] Kemendikbud, "Pengembangan Kurikulum Merdeka Belajar," *Permendikbud Ristek Tahun 2021*, 2021.

[12] A Aslamiah et al., "Transformasi Pendidikan Melalui Kurikulum Merdeka Di SDN Antasan Besar 7 Banjarmasin," *MARAS: Jurnal Penelitian Multidisiplin* 2, no. 3 (2024): 1188–1201.

[13] Denada Viqri et al., "Problematika Pembelajaran IPAS Dalam Kurikulum Merdeka," *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)* 4, no. 2 (2024): 310–15, doi:10.54371/jiepp.v4i2.419.

[14] Aslamiah et al., "Transformasi Pendidikan Melalui Kurikulum Merdeka Di SDN Antasan Besar 7 Banjarmasin."

[15] Nikma Ariswari et al., "STRATEGI GURU DALAM MENGGUNAKAN MEDIA VIDEO SEBAGAI PENDUKUNG PEMBELAJARAN IPAS DI SD NEGERI 3" 3 (2025): 19–29.

curriculum change from thematic to returning to subjects certainly causes teachers to review the learning process. In previous research, the implementation of the independent curriculum does have several challenges or obstacles, according to research conducted by Yunita et al regarding the implementation of the Merdeka Curriculum, there are inhibiting factors in its implementation, namely an unsupportive environment.[16] Meanwhile, in Restu Rahayu's research, et al, the implementation of the independent curriculum will be hampered if the facilities and infrastructure are not adequate. Therefore, it is important to conduct additional research to find out how the Merdeka Curriculum is actually implemented.[17]

The purpose of the study is to see how the implementation of Merdeka Curriculum in IPAS subjects can affect students' motivation and enthusiasm for learning from observations that have been made of grade V students of MI Al-Azhar Muara Pinang that when implementing the Merdeka curriculum in IPAS subjects there are still teachers separating science and social studies. Teachers still tend to follow the student books provided by the government, this does not meet the expectations of the Merdeka Learning curriculum. This study focuses on how IPAS is integrated into science and social studies within the framework of the Merdeka Curriculum.

2. Method

This research is a literature review with a qualitative and historical approach. This library study aims to examine and analyze in depth various relevant literature and documents related to innovations in attitude assessment techniques and instruments at the primary, secondary and higher education levels in the context of Islamic education. The qualitative approach is used to understand the meaning and context of the data obtained in depth, while the historical approach is used to trace the development of attitude assessment over time and assess its relationship with educational policies and Islamic values such as akhlak karimah, tazkiyah al-nafs, and tarbawiyah principles.

This research refers to the views of Denzin and Lincoln, who state that qualitative approaches serve to explore meaning and complex social processes, as well as Erickson who emphasizes the importance of narrative in describing the dynamics of real life. In addition to classic theories, recent references on assessment in the context of the Merdeka Curriculum are also used to maintain relevance to contemporary issues of Islamic education. The data collection process is carried out by identifying relevant documents and literature, both in the form of policy documents and scientific articles.[18] The main documents that serve as primary sources are Permendikbud Number 12 of 2024 concerning Merdeka Curriculum and the book Development of Evaluation Systems. Meanwhile, relevant scientific journal articles are used as secondary sources to enrich the analysis and expand the scope of the study.

The selected literature meets inclusion criteria such as relevance to the topic of attitude assessment, relevance to Islamic education, and novelty (published in the last five years). The analysis procedure was carried out through several stages: document identification and selection, reading and content review, thematic classification, and data

[16] Yunita Yunita et al., "Implementasi Kurikulum Merdeka Belajar," *Jambura Journal of Educational Management*, 2023, 16–25.

[17] Restu Rahayu et al., "Implementasi Kurikulum Merdeka Belajar Di Sekolah Penggerak," *Jurnal Basicedu* 6, no. 4 (2022): 6313–19, doi:10.31004/basicedu.v6i4.3237.

[18] Sulfiani Sulfiani, Nora Saiva Jannana, and Sedya Sentosa, "Enhancing Islamic Educational Quality through Output-Based Quality Assurance: A Literature Review Perspective," *HEUTAGOGIA: Journal of Islamic Education* 3, no. 2 (December 31, 2023): 155–68, doi:10.14421/hjie.2023.32-02.

synthesis in a narrative and interpretative manner. The analysis technique used was thematic content analysis, which enabled the researcher to highlight key issues such as the challenges of attitude assessment, integration of Islamic values, and relevant curriculum policies.[19]

The entire analysis process was done manually, without the help of qualitative data processing software such as NVivo, but reference management was assisted by the Mendeley application to ensure citation and bibliographic accuracy. To maintain the validity and consistency of the findings, source triangulation was conducted by comparing information from various primary and secondary documents. Theoretical validation was also applied by examining the compatibility of the findings with concepts in Islamic literature and pedagogy. Potential bias was minimized through repeated readings and balancing views from various credible and diverse sources.

3. Results

3.1. Implementation of Merdeka Curriculum in IPAS Subject Learning

Based on the research, the schools that are the focus of the study have adopted the independent curriculum. In implementing a policy, teachers have the effort to determine learning approaches, teaching methods, and various forms of assessment that are very suitable for learning objectives and student needs. [20] It should be noted that there are no specific criteria that schools must meet to adopt this curriculum, only the desire of the school to implement the independent curriculum policy. This is conveyed in the research results. [21]

In the Merdeka Curriculum, science and social studies subjects are united in the IPAS subject with the aim that students can understand and manage the natural and social environment as a whole.[22] Character education that is inserted in social studies learning aims to shape students into good individuals and responsible citizens. This is expected to prevent a moral crisis and support the development of the younger generation.[23]

The application of Merdeka Curriculum principles in IPAS subjects helps students manage the natural and social environment in one unit. Students are trained in scientific attitudes, such as curiosity and critical thinking.[24] In its implementation, the division of the curriculum is based on three phases of learning, namely phase A for low grades (1-2), phase B for middle grades (3-4), and phase C for high grades (5-6). IPAS integrates natural and social aspects in accordance with the characteristics of elementary school students. [25]

---

[19] V Wiratna Sujarweni, *Metodelogi Penelitian* (Yogyakarta: Pustaka Baru Perss, 2014).

[20] Azzeddine Boudouaia et al., "A Study on the Effect of School Culture on Teachers' Commitment to Curriculum Implementation: The Mediating Role of Self-Efficacy and Job Satisfaction," *Heliyon* 10, no. 8 (2024).

[21] Widya Lestari et al., "Analysis of Implementation of the Independent Curriculum in Science Learning at SMP Negeri 1 Tanah Grogot Kalimantan Timur, Indonesia," *Repository Universitas Lambung Mangkurat*, 2023.

[22] Harlinda Syofyan et al., "Teacher Readiness Factors That Influence the Implementation of the Merdeka Curriculum in Elementary Schools," *Journal of Curriculum and Teaching* 13, no. 5 (2024): 168.

[23] Nurdiyanti Nurdiyanti, Muhammad Wajdi, and Nurul Magfirah, "Impelementation of Kurikulum Merdeka (Freedom Curriculum) in Science Learning: A Case Study in Sekolah Indonesia Kuala Lumpur, Malaysia," *Edelweiss Applied Science and Technology* 8, no. 6 (2024): 184–96.

[24] Habibollah Kord et al., "Design and Presentation of an Optimal Curriculum Model for Innate Social Education in Elementary School," *Sociology of Education* 10, no. 2 (2024): 57–65.

[25] Shofia Hattarina et al., "Implementasi Kurikulum Medeka Belajar Di Lembaga Pendidikan," in *Seminar Nasional Sosial, Sains, Pendidikan, Humaniora (SENASSDRA)*, vol. 1, 2022, 181–92.

When facing obstacles in implementing the Merdeka Curriculum in IPAS subjects, teachers try to take the right steps to overcome them such as Through discussions with the teacher, students are invited to design activities to increase their attitude of responsibility and commitment.[26] In learning project activities, learners are directed to recognize problems, find solutions, and convey the results through the projects they make.[27] The active involvement of learners proved to be effective in exploring their creativity so that they took the initiative to observe, understand, and practice the photosynthesis process directly on plants.

In the implementation stage, learners observe and practice the photosynthesis process using simple tools and materials such as green plants, water and sunlight. They record their observations directly on the observation table that has been prepared beforehand. The learning experience gained from this activity is real and gives a pleasant impression to students. One of the students in class V revealed that, "I am happy to be able to better understand why plants need sunlight." Meanwhile, the class teacher who supervised the observation process carried out by the researcher stated, "Children become active in asking questions and it is easier to understand the material when directly practicing." This learning took place collaboratively and without coercion. Learners showed high enthusiasm throughout the process, reflecting their emotional and cognitive engagement in learning activities. This is in line with the experiential learning approach and emphasizes active participation of students directly during the learning process.

One of the IPAS learning methods practiced is the topic "Photosynthesis Process in Plants". The activity begins with the exploration of learners' initial knowledge about the function of leaves and sunlight. Then a simple experiment is conducted using plant leaves, a basin of water, and sunlight. After that, learners analyze the results and draw conclusions through group discussions. Thus, learning is not only centered on theory, but also provides opportunities for learners to feel and reflect directly on scientific phenomena around them.

The process of this activity was made in such a way by researchers who were directly supervised by the class teacher as an observer, through the IPAS guidebook on the independent curriculum. In this book, instructions and how to carry out the photosynthesis process have been explained. So apart from being supported by the independent curriculum learning platform, the student book also explains what kind of learning activities are expected in this IPAS subject.

[26] Wulan Ndari and Fitri Nur Mahmudah, "Implementation of the Merdeka Curriculum and Its Challenges," *European Journal of Education and Pedagogy* 4, no. 3 (2023): 111–16.

[27] Minjeong Park and Youl-Kwan Sung, "Teachers' Perceptions of the Recent Curriculum Reforms and Their Implementation: What Can We Learn from the Case of Korean Elementary Teachers?," *Asia Pacific Journal of Education* 33, no. 1 (2013): 15–33.

Figure 1: Students Place Plants for Photosynthesis Experiment

Figure 2: Students recording their observations

Figure 1 and Figure 2 are visual documentation taken during the photosynthesis practical activities. The documentation was taken by the researcher as part of participatory observation to capture the learning dynamics directly. Figure 1 shows students putting plants under the sun at 09.00 WIB in the school yard, so students not only listen to the teacher's explanation, but also conduct their own experiments, which encourage curiosity and active cognitive engagement. Meanwhile, Figure 2 shows the activity of students when recording the changes that occur in the leaves after being observed for an hour, by observing the changes in the leaves and recording them themselves, students build their own understanding of the photosynthesis process, not just receiving information from the teacher. This is in line with the constructivistic learning theory that underpins IPAS learning.

Figure 3: Students Conducting Group Discussion

While in Figure 3, students are encouraged to conduct group discussions directly supervised by the researcher to find out the results of observing the photosynthesis process in plants that they have observed. The group discussion activities conducted by students reflect the cooperative learning approach that supports the principle of constructivism. In this approach, students are encouraged to build their own knowledge through social interaction and direct experience. Group discussions on the results of observations of the photosynthesis process allow students to exchange information, clarify understanding, and strengthen concepts through logical arguments and reasoning.

In this activity, students learn to observe and understand the process of photosynthesis in plants and its benefits. They also learn the parts of plants that can photosynthesize well. The explanation and introduction of plant species helps students understand the importance of photosynthesis in life. Assessment is based on skills and attitude, with a focus on cooperation and accuracy. Students who are skilled at observing

photosynthesis will show differences with those who are not. Cooperation and accuracy are the keys to success in this activity.

In line with the results of observations and interviews, this study shows a positive response from students to the applied learning methods applied by researchers in IPAS subjects contained in the Merdeka Curriculum. Based on the results of an interview by one of the students in grade 5, it turns out that after this learning activity is carried out, students feel much more enthusiastic in carrying out learning than just reading books or listening to teacher explanations. "I feel more enthusiastic when learning, because I don't just focus on textbooks but do more experiments outside the classroom." said one of the students

IPAS is considered to provide benefits by reducing the burden on teachers in mastering the material, so that teachers can focus their time on developing various learning approaches that are interesting for students. According to a resource teacher, "with the existence of IPAS, I feel less burdened to master all science materials as before." The results also show that teachers' readiness to carry out IPAS learning in primary schools is evident through careful preparation of planning, implementation and assessment.

3.2 Obstacles to Implementing Merdeka Curriculum in the context of IPAS Subjects

Although Merdeka Curriculum provides flexibility in learning development, its implementation in the field has not been fully optimized. One of the obstacles in this study revealed that teachers still use old learning methods, such as lecturing and relying on government textbooks without integrating contextual or project-based approaches. As a result, students become inactive, passive and lose interest in learning IPAS. In an interview, the class teacher stated, "I still often use textbooks and explain directly in front of the class because I am not used to making my own learning media." The use of the monotonous lecture method also hinders students in developing critical thinking skills and emotional engagement in learning. In accordance with the research of Muhammad Adam Dzuhri, et al, it shows that the lecture method has a limited role in developing critical thinking skills.[28]

As a solution to these obstacles, teachers who are not accustomed to or do not have the ability to design learning media independently can utilize learning videos from the YouTube platform as an alternative media. The use of this video supports a visual and contextual approach, so that it can improve concept understanding and student involvement in the learning process. Videos with topics such as the photosynthesis process can enrich teaching materials and facilitate student understanding through attractive visual displays. Teachers can choose relevant and reliable educational videos and integrate them into learning activities as a discussion starter or material explanation. This strategy has proven effective in increasing student engagement. Reinforced by the research of Sofyan Iskandar et al, it shows that the effect of using animated videos can increase students' knowledge of the photosynthesis process. The pretest and posttest results showed an increase in the average score from 58.8 to 72.[29]

This shows that the use of digital media such as YouTube can be an innovative alternative in implementing Merdeka Curriculum more effectively. This media is very useful, especially for teachers who still face obstacles in designing learning media

[28] Muhammad Adam Dzuhri, Saiful Amien, and Ianatut Thoifah, "Peran Metode Pembelajaran Dalam Mengembangkan Keterampilan Berpirkir Kritis MahasiswaProdi Pendidikan Agama Islam," *Riwayat: Educational Journal of History and Humanities* 8, no. 1 (2025): 519–33.

[29] Sofyan Iskandar et al., "Pengaruh Video Animasi Terhadap Pengetahuan Proses Fotosintesis Pada Siswa Kelas IV SD," *Jurnal Ilmiah Wahana Pendidikan* 9, no. 3 (2023): 494–501.

independently. In addition, the use of learning videos can also complement experimental-based learning methods (Project Based Learning), and help teachers deliver IPAS material in a more interactive, contextual, and fun way for students.

4. Discussion

The implementation of the Merdeka Curriculum in IPAS (Natural and Social Sciences) subjects represents a pedagogical shift aimed at promoting student-centered and contextual learning in Indonesian elementary schools. The curriculum provides educators with the flexibility to adapt content and methods to students' developmental needs while integrating character education and experiential learning strategies. As the curriculum merges science and social studies, it seeks to enhance students' environmental awareness, civic responsibility, and problem-solving capacities through interdisciplinary engagement.[30] This study explored how these goals materialize in the actual teaching practices of grade five at MI Al-Azhar Muara Pinang, focusing on both strengths and challenges. The findings contribute to ongoing discussions about curriculum innovation and pedagogical transformation in primary education within the Indonesian context.

The research found that MI Al-Azhar Muara Pinang has adopted the Merdeka Curriculum with a high level of teacher initiative and student participation. Teaching was conducted through project-based and inquiry-driven methods, as exemplified in the lesson on photosynthesis. The students showed increased motivation and engagement during hands-on experiments, collaborative discussions, and the application of observation-based learning. Teachers reported decreased instructional burden, which allowed them to focus more on designing creative and meaningful learning experiences. One notable outcome was the clear increase in students' cognitive and affective involvement, as they not only understood the content more deeply but also found the learning process enjoyable and memorable.

However, despite the positive results, there are still significant obstacles from the teachers' side, especially in the use of innovative learning methods. Many teachers still rely on the lecture method and textbooks as the main source of learning. This obstacle cannot be separated from several factors, including the lack of specialized training on Merdeka Curriculum, limited access to contextual learning resources and media, and lack of teacher confidence in designing project-based learning or experiments. This finding is in line with the results of Park and Sung et al's research which states that teachers' unpreparedness in understanding and implementing the new curriculum can have an impact on the lack of innovation in the classroom.[31]

The Merdeka Curriculum provides flexibility for teachers in choosing methods, approaches, and forms of assessment. However, this flexibility is a challenge for some teachers who do not have adequate competence or training. As stated by Boudouaia et al, the transition to a more flexible curriculum requires systemic support, including increasing teacher capacity through continuous training and providing learning resources that are easily accessible and appropriate to the characteristics of learners.[32]

---

[30] Wifqi Rahmi, "Analytical Study of Experiential Learning: Experiential Learning Theory in Learning Activities," *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran* 5, no. 2 (2024): 115–26.

[31] Park and Sung, "Teachers' Perceptions of the Recent Curriculum Reforms and Their Implementation: What Can We Learn from the Case of Korean Elementary Teachers?"

[32] Boudouaia et al., "A Study on the Effect of School Culture on Teachers' Commitment to Curriculum Implementation: The Mediating Role of Self-Efficacy and Job Satisfaction."

In addition, teachers do not fully understand the characteristics and achievements of each phase, which has an impact on the difficulty of developing appropriate teaching tools. This indicates a gap between curriculum policy and the reality of implementation in the field, as reinforced by Handayani et al's research that teachers' understanding of phase-based curriculum design is still limited, and requires ongoing technical guidance.[33]

As an alternative solution, the use of digital media such as learning videos from YouTube has been proven to help overcome teachers' limitations in making their own media. Visual videos that fit the context of the topic, such as the photosynthesis process, strengthen students' visual-cognitive aspects and improve concept understanding. This finding is supported by Sofyan Iskandar et al who proved that the use of animated videos significantly improved students' comprehension scores through pretest and posttest tests.[34]

The integration of observation and group discussion demonstrated a balanced emphasis on cognitive and social-emotional learning. Students learned to observe systematically, work cooperatively, and communicate their insights, all of which are essential 21st-century skills. This reflects the goals of the Merdeka Curriculum to move beyond rote memorization and towards holistic education that encompasses skills, knowledge, and character. The use of observation tables and group reflections also serves as informal yet effective assessment tools that align with authentic assessment principles. Such assessment strategies are especially relevant given the documented need to improve the quality and planning of affective and authentic assessment practices in Indonesian schools.[35]

However, some teachers still rely on conventional methods due to unfamiliarity with curriculum innovations or limited media design skills. This obstacle underscores the gap between policy aspirations and classroom realities, a challenge echoed in earlier research on the implementation of curriculum reform in Indonesia.[36] The continued reliance on lecture-based teaching restricts students' opportunities to engage in higher-order thinking and contextual problem-solving. To bridge this gap, the strategic use of visual and digital media such as educational videos from platforms like YouTube can serve as an effective interim solution. Such tools not only enhance conceptual understanding through visualization but also model inquiry-based thinking for both teachers and students.

The implications of these findings suggest that the Merdeka Curriculum has considerable promise for transforming IPAS learning in primary schools. Its successful implementation can foster active learning, environmental awareness, and character development among students. Nonetheless, sustained support in the form of teacher training, access to educational media, and continuous curriculum evaluation is critical to ensure broader and deeper adoption. Schools must cultivate a collaborative learning culture where teachers are encouraged to innovate, reflect, and share best practices. In doing so, the Merdeka Curriculum can move beyond policy discourse to become a transformative force in shaping Indonesia's future generation of learners.

---

[33] Bestari Dwi Handayani and Mar'atus Sholikah Sholikah, "Peningkatan Kompetensi Guru Melalui Pendampingan Penyusunan Perencanaan Pembelajaran Berbasis Kurikulum Merdeka," *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)* 5, no. 2 (2024): 416–31.

[34] Iskandar et al., "Pengaruh Video Animasi Terhadap Pengetahuan Proses Fotosintesis Pada Siswa Kelas IV SD."

[35] Syofyan et al., "Teacher Readiness Factors That Influence the Implementation of the Merdeka Curriculum in Elementary Schools."

[36] Siti Baro'ah, "Kebijakan Merdeka Belajar Sebagai Strategi Peningkatan Mutu Pendidikan," *Tawadhu* 4, no. 1 (2020): 1063–73.

5. Conclusion

This study aimed to examine the implementation of the Merdeka Curriculum in IPAS (Ilmu Pengetahuan Alam dan Sosial) learning for fourth-grade students at MI Al-Azhar Muara Pinang, with a particular focus on how the curriculum's flexibility and project-based approaches are operationalised in classroom practices. The research found that, while the school has adopted the Merdeka Curriculum with evident enthusiasm and some innovative teaching practices, implementation varies in quality and consistency. The integrated IPAS subject fosters students' understanding of both natural and social environments through experiential learning, scientific inquiry, and contextual problem-solving. Activities such as the photosynthesis experiment effectively engaged students cognitively and emotionally, enhanced their critical thinking skills, and supported character development. Students responded positively to these hands-on, inquiry-based activities, and teachers reported reduced pressure to master all science content, allowing for greater pedagogical creativity. The findings underscore the potential of the Merdeka Curriculum to transform primary education in Indonesia by promoting active learning, environmental consciousness, and collaborative values. However, its impact is contingent on the preparedness and mindset of educators. The study also revealed a persisting reliance on traditional teaching methods by some teachers due to limited competence in instructional media design, which hampers full curriculum realisation. This limitation points to the need for continuous teacher capacity-building, particularly in the use of contextual media and digital resources. Despite its strengths, the study acknowledges limitations in scope and generalisability, being confined to a single institution and limited observation cycles. Broader, longitudinal studies across diverse school settings are needed to assess the systemic implementation and impact of the Merdeka Curriculum across regions and student demographics. Future research should explore scalable models for professional development, the integration of digital learning tools within IPAS instruction, and mechanisms to measure long-term learning outcomes. Stakeholders are encouraged to invest in structured support systems for educators, foster peer-learning networks, and conduct continuous curriculum evaluations to ensure the Merdeka Curriculum achieves its transformative potential in fostering a generation of independent, reflective, and socially responsible learners.

6. References

Anwar, Zainul, and Raudhatul Jannah. "Telaah Kurikulum 13 Dan Kurikulum Merdeka Di SD/MI." *Mentari: Journal of Islamic Primary School* 1, no. 3 (2023): 151–62.

Ariswari, Nikma, Muhammad Dhori, Yulia Destriani, and Marsya Asifa. "STRATEGI GURU DALAM MENGGUNAKAN MEDIA VIDEO SEBAGAI PENDUKUNG PEMBELAJARAN IPAS DI SD NEGERI 3" 3 (2025): 19–29.

Aslamiah, A, D A Pratiwi, FSFA Rivada, M H Anshari, N Ramadhayanti, S P Damayanti, and S P Nazmiatun. "Transformasi Pendidikan Melalui Kurikulum Merdeka Di SDN Antasan Besar 7 Banjarmasin." *MARAS: Jurnal Penelitian Multidisiplin* 2, no. 3 (2024): 1188–1201.

Azzahra, Irfanaeka, Aan Nurhasanah, and Eli Hermawati. "Implementasi Kurikulum Merdeka Pada Pembelajaran IPAS Di SDN 4 Purwawinangun." *Didaktik : Jurnal Ilmiah PGSD STKIP Subang* 9, no. 2 (2023): 6230–38. doi:10.36989/didaktik.v9i2.1270.

Baro'ah, Siti. "Kebijakan Merdeka Belajar Sebagai Strategi Peningkatan Mutu Pendidikan." *Tawadhu* 4, no. 1 (2020): 1063–73.

Boudouaia, Azzeddine, Abdo Hasan Al-Qadri, Asma Houichi, and Salma Diafi. "A Study on

the Effect of School Culture on Teachers' Commitment to Curriculum Implementation: The Mediating Role of Self-Efficacy and Job Satisfaction." *Heliyon* 10, no. 8 (2024).

Bümen, Nilay T, and Mona Holmqvist. "Teachers' Sense-Making and Adapting of the National Curriculum: A Multiple Case Study in Turkish and Swedish Contexts." *Journal of Curriculum Studies* 54, no. 6 (2022): 832–51.

Dzuhri, Muhammad Adam, Saiful Amien, and Ianatut Thoifah. "Peran Metode Pembelajaran Dalam Mengembangkan Keterampilan Berpirkir Kritis MahasiswaProdi Pendidikan Agama Islam." *Riwayat: Educational Journal of History and Humanities* 8, no. 1 (2025): 519–33.

Handayani, Bestari Dwi, and Mar'atus Sholikah Sholikah. "Peningkatan Kompetensi Guru Melalui Pendampingan Penyusunan Perencanaan Pembelajaran Berbasis Kurikulum Merdeka." *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)* 5, no. 2 (2024): 416–31.

Hattarina, Shofia, Nurul Saila, Adenita Faradilla, Dita Refani Putri, and R R Ghina Ayu Putri. "Implementasi Kurikulum Medeka Belajar Di Lembaga Pendidikan." In *Seminar Nasional Sosial, Sains, Pendidikan, Humaniora (SENASSDRA)*, 1:181–92, 2022.

Hidayat, Luki Emiliya, Yazid Basthomi, and Rida Afrilyasanti. "Exploring Secondary School Teachers' Creativity in Differentiated Instruction (DI) Practices across Indonesian EFL Classrooms." *Thinking Skills and Creativity* 53 (2024): 101620.

Iskandar, Sofyan, Primanita Sholihah Rosmana, Anggy Deviyanti, Asbarina Aghna Qolby, Luthfiannisa Ghessiani, and Ranisa Devi. "Pengaruh Video Animasi Terhadap Pengetahuan Proses Fotosintesis Pada Siswa Kelas IV SD." *Jurnal Ilmiah Wahana Pendidikan* 9, no. 3 (2023): 494–501.

Jannah, Faridahtul, Thooriq Irtifa'Fathuddin, and Putri Fatimattus Az Zahra. "Problematika Penerapan Kurikulum Merdeka Belajar 2022." *Al Yazidiy: Jurnal Sosial Humaniora Dan Pendidikan* 4, no. 2 (2022): 55–65.

Kemendikbud. "Kurikulum Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, Dan Jenjang Pendidikan Menengah." *Permendikbud Ristek Nomor 12 Tahun 2024*, 2024, 1–26.

———. "Pengembangan Kurikulum Merdeka Belajar." *Permendikbud Ristek Tahun 2021*, 2021.

Kord, Habibollah, Arezoo Kord, Mokhtar Kord, Alireza Keykha, and Soraya Kord. "Design and Presentation of an Optimal Curriculum Model for Innate Social Education in Elementary School." *Sociology of Education* 10, no. 2 (2024): 57–65.

Lestari, Widya, Mella Mutika Sari, Maya Istyadji, and Fahmi Fahmi. "Analysis of Implementation of the Independent Curriculum in Science Learning at SMP Negeri 1 Tanah Grogot Kalimantan Timur, Indonesia." *Repository Universitas Lambung Mangkurat*, 2023.

Mufanti, Restu, Don Carter, and Neil England. "Outcomes-Based Education in Indonesian Higher Education: Reporting on the Understanding, Challenges, and Support Available to Teachers." *Social Sciences & Humanities Open* 9 (2024): 100873.

Ndari, Wulan, and Fitri Nur Mahmudah. "Implementation of the Merdeka Curriculum and Its Challenges." *European Journal of Education and Pedagogy* 4, no. 3 (2023): 111–16.

Nurdiyanti, Nurdiyanti, Muhammad Wajdi, and Nurul Magfirah. "Impelementation of Kurikulum Merdeka (Freedom Curriculum) in Science Learning: A Case Study in Sekolah Indonesia Kuala Lumpur, Malaysia." *Edelweiss Applied Science and*

Technology 8, no. 6 (2024): 184–96.

Nurhayati, Tiara, Deka Zullysa, Muhammad Dhori, and Nurzarah Adelia. "Analisis Teori Belajar Kontruktivisme." *Jurnal Pendidikan Guru Madrasah Ibtidaiyah Al-Amin* 4, no. 1 (2025): 161–75.

Park, Minjeong, and Youl-Kwan Sung. "Teachers' Perceptions of the Recent Curriculum Reforms and Their Implementation: What Can We Learn from the Case of Korean Elementary Teachers?" *Asia Pacific Journal of Education* 33, no. 1 (2013): 15–33.

Rahayu, Restu, Rita Rosita, Yayu Sri Rahayuningsih, Asep Herry Hernawan, and Prihantini Prihantini. "Implementasi Kurikulum Merdeka Belajar Di Sekolah Penggerak." *Jurnal Basicedu* 6, no. 4 (2022): 6313–19. doi:10.31004/basicedu.v6i4.3237.

Rahmi, Wifqi. "Analytical Study of Experiential Learning: Experiential Learning Theory in Learning Activities." *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran* 5, no. 2 (2024): 115–26.

Sujarweni, V Wiratna. *Metodelogi Penelitian*. Yogyakarta: Pustaka Baru Perss, 2014.

Sulfiani, Sulfiani, Nora Saiva Jannana, and Sedya Sentosa. "Enhancing Islamic Educational Quality through Output-Based Quality Assurance: A Literature Review Perspective." *HEUTAGOGIA: Journal of Islamic Education* 3, no. 2 (December 31, 2023): 155–68. doi:10.14421/hjie.2023.32-02.

Syofyan, Harlinda, Ainur Rosyid, Muhammad Rijal Fadli, Adisti Ananda Yusuff, Unggul Jl Arjuna Utara No, and Duri Kepa. "Teacher Readiness Factors That Influence the Implementation of the Merdeka Curriculum in Elementary Schools." *Journal of Curriculum and Teaching* 13, no. 5 (2024): 168.

T. Setioyuliani, A., & Andaryani. "Peran Guru Dalam Pembelajaran Berbasis Proyek Di Kurikulum Merdeka." *Mentari: Journal of Islamic Primary School* 5, no. 3 (2023): 88–102.

Viqri, Denada, Lara Gesta, M. Fattur Rozi, Arini Syafitri, Andy Makarim Falah, Khoirunnisa Khoirunnisa, and Risdalina Risdalina. "Problematika Pembelajaran IPAS Dalam Kurikulum Merdeka." *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)* 4, no. 2 (2024): 310–15. doi:10.54371/jiepp.v4i2.419.

Wafi, Abdul, and Umarul Faruk. "Pesantren Earlier Dalam Implementasi Kurikulum Merdeka: Studi Kasus Di Pondok Pesantren Mambaul Ulum Bata Bata." *Heutagogia: Journal of Islamic Education* 3, no. 1 (2023). doi:doi.org/10.14421/hjie.2023.31-04.

Yunita, Yunita, Ahmad Zainuri, Ibrahim Ibrahim, Ahmad Zulfi, and Mulyadi Mulyadi. "Implementasi Kurikulum Merdeka Belajar." *Jambura Journal of Educational Management*, 2023, 16–25.