

PHILOSOPHICAL ANALYSIS OF SCIENCE ON THE INDEPENDENT CURRICULUM AS A KNOWLEDGE CONSTRUCTION

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Article History

Received: 23-12-2025

Revision: 06-01-2026

Accepted: 09-01-2026

Published: 11-01-2026

Abstract. The implementation of the Merdeka Curriculum in Indonesia marks a paradigmatic transformation in the national education system, shifting from an administrative approach toward a deep philosophical transformation. This study aims to analyze the Merdeka Curriculum as a construction of knowledge through the perspective of the philosophy of science, which includes ontological, epistemological, and axiological dimensions. Using a descriptive qualitative method through literature study, this research explores how the curriculum reformulates the nature of knowledge and the position of students. The analysis results show that, ontologically, the Merdeka Curriculum views knowledge as a dynamic-contextual entity and students as autonomous subjects. Epistemologically, there is a shift toward inquiry-constructivist learning through direct experience (learning by doing). Axiologically, the goal of education is directed at shaping a whole human being through the Pancasila Student Profile. The synergy between Progressivism, Constructivism, and the ideas of Ki Hajar Dewantara forms a solid foundation for this curriculum, although challenges such as the readiness of educators' mentality and infrastructure still remain major obstacles in its implementation

Keywords: Independent Curriculum, Philosophy of Science, Knowledge Construction, Ontology, Epistemology, Axiology

Abstrak. Implementasi Kurikulum Merdeka di Indonesia menandai transformasi paradigmatik dalam sistem pendidikan nasional, bergeser dari pendekatan administratif menuju transformasi filosofis yang mendalam. Studi ini bertujuan untuk menganalisis Kurikulum Merdeka sebagai konstruksi pengetahuan melalui perspektif filsafat ilmu, yang mencakup dimensi ontologis, epistemologis, dan aksiologis. Dengan menggunakan metode kualitatif deskriptif melalui studi literatur, penelitian ini mengeksplorasi bagaimana kurikulum tersebut merumuskan kembali hakikat pengetahuan dan posisi siswa. Hasil analisis menunjukkan bahwa, secara ontologis, Kurikulum Merdeka memandang pengetahuan sebagai entitas dinamis-kontekstual dan siswa sebagai subjek otonom. Secara epistemologis, terdapat pergeseran menuju pembelajaran inkuiri-konstruktivis melalui pengalaman langsung (belajar sambil melakukan). Secara aksiologis, tujuan pendidikan diarahkan pada pembentukan manusia seutuhnya melalui Profil Siswa Pancasila. Sinergi antara Progresivisme, Konstruktivisme, dan gagasan Ki Hajar Dewantara membentuk landasan yang kokoh bagi kurikulum ini, meskipun tantangan seperti kesiapan mentalitas pendidik dan infrastruktur masih menjadi hambatan utama dalam implementasinya.

Kata Kunci: Kurikulum Merdeka, Filsafat Sains, Konstruksi Pengetahuan, Ontologi, Epistemologi, Aksiologi

How to Cite: Ramdhani, D. R., Rohanda, R., & Kodir, A. (2026). Philosophical Analysis of Science on The Independent Curriculum as A Knowledge Construction. *Indo-MathEdu Intellectuals Journal*, 7 (1), 443-449. <http://doi.org/10.54373/imeij.v7i1.4926>

INTRODUCTION

Indonesia's national education is currently in a phase of significant paradigmatic transition through the implementation of the Independent Curriculum. This shift is not merely an administrative change from the 2013 Curriculum, such as the replacement of the Lesson Plan (RPP) with Teaching Modules, but a profound philosophical transformation (Bin et al., 2024). The Merdeka Curriculum was introduced in response to the phenomenon of learning loss after the pandemic and the global demand for adaptive human resources in the Society 5.0 era (Media et al., 2025). Fundamentally, this curriculum embraces the principles of flexibility, focuses on essential material, and develops character through the Pancasila Student Profile (Kartika et al., 2025).

However, the dynamics in the field show a striking gap between the idealism of policy and the reality of implementation. Many academic discourses as well as practices in educational units are still trapped in the technical-implementative dimension (Hajar, 2024). Educators and practitioners tend to be more occupied with procedural matters, such as how to prepare appropriate teaching materials or the technical implementation of the Pancasila Student Profile Strengthening Project (P5), without clearly understanding the philosophical foundations underlying the curriculum structure. Without a fundamental understanding of the nature of the knowledge being built, the implementation of this curriculum risks losing its “spirit” or substance and will merely become a series of ceremonial administrative activities.

From the perspective of the philosophy of science, any change in the curriculum is essentially a change in the way knowledge is viewed and acquired. The Merdeka Curriculum is theoretically rooted in the streams of progressivism and constructivism. Constructivism sees knowledge not as a static entity that is transferred wholesale from teacher to student, but as an active construction carried out by learners based on their experiences and social interactions (Mariska et al., 2024). This aligns with Ki Hajar Dewantara's educational philosophy regarding the concepts of *Among* and independence, where education should liberate the heart, mind, and energy of students (Putu et al., 2023).

The need for an in-depth study of the philosophical dimensions of the Merdeka Curriculum has become very urgent. The philosophy of science provides a systematic framework through its three main pillars: ontology, epistemology, and axiology (Widuri et al., 2025). Ontologically, it is necessary to reconsider the nature of “knowledge” and “learner” in this curriculum—whether knowledge is seen as a final objective reality or something subjective and contextual. Epistemologically, it is important to dissect how the process of knowledge validation occurs in student-centered learning (Nikma et al., 2023). Meanwhile, from an axiological perspective, the

value orientation of that knowledge must be clear, whether it is merely to meet the instrumental needs of the workforce or aimed at the intrinsic value of forming a complete human being (Cahya et al., 2025).

The uniqueness of this research lies in its effort to “uncover” the philosophical layers of the Independent Curriculum, which have so far often been overlooked by researchers who tend to focus more on learning outcomes or the effectiveness of methods (Ulfa & Khaudli, 2025). By using the philosophy of science perspective, this study aims to analyze the Independent Curriculum as a dynamic knowledge construct. Through this approach, it is hoped that educators will not only be able to implement the curriculum technically, but also have a logical and methodological awareness of why a particular learning approach is taken.

Therefore, this study will critically explore the relevance of the principles of the philosophy of science in the design of the Merdeka Curriculum. The main focus of this research is directed at mapping the ontological structure, epistemological mechanisms, and axiological orientation that shape the current face of education in Indonesia. By understanding the Merdeka Curriculum as a knowledge construct, it is hoped that the educational process can return to its essence as an effort to foster critical, reflective, and independent thinking patterns in students as they face the complexities of the future.

METHOD

This study uses a qualitative approach with a library research type of study. The choice of this method is based on the characteristics of the formal research object, namely a philosophical analysis of knowledge construction in the Merdeka Curriculum policy (Mariska et al., 2024). As a study in the philosophy of science, this research does not aim to test hypotheses empirically, but rather to explore, map, and critically interpret the fundamental assumptions that underpin the structure of the curriculum (Widuri et al., 2025).

The data sources in this study were collected from various relevant primary and secondary literature sources. Primary sources include official policy documents of the Merdeka Curriculum, academic manuscripts, and related regulations issued by the Ministry of Education, Culture, Research, and Technology (Suratni, 2023). Meanwhile, secondary sources consist of scientific journal articles, educational philosophy books, and previous research reports that discuss the implementation of the curriculum in various regions, such as case studies in Palopo, Palu, and Bandung (Bin et al., 2024). Data collection techniques were carried out through documentation using a limited Systematic Literature Review (SLR) method. The researcher conducted a planned literature search to identify texts containing narratives

regarding the principles of ontology, epistemology, and axiology in the Merdeka Curriculum (Manggala & Sauri, 2024; Syahrul & Azis, 2024).

The technique of analyzing the collected data was carried out using content analysis and philosophical interpretation (hermeneutic) methods. The steps of the analysis were conducted as follows: (1) data reduction, selecting and sorting information relevant to the pillars of the philosophy of science (ontology, epistemology, and axiology); (2) categorization, grouping data based on its relation to philosophical streams such as constructivism, progressivism, and Ki Hajar Dewantara's philosophy (Hajar, 2024); (3) critical analysis, conducting a systematic examination of policy texts to uncover implicit meanings regarding how knowledge is constructed; and (4) drawing conclusions, synthesizing the findings into a coherent argument about the philosophical aspects of the Merdeka Curriculum. To ensure data validity, this study employed source triangulation by comparing various literature and perspectives from educational experts to obtain a holistic and objective understanding (Ulfa & Khaidli, 2025). Through this procedure, the research is expected to produce a credible and in-depth analysis of the Merdeka Curriculum as a knowledge construct.

RESULTS AND DISCUSSION

Ontological Analysis: The Nature of Knowledge and the Learning Subject

Ontologically, the philosophy of science questions the essence of what is being studied. In the context of the Merdeka Curriculum, the fundamental questions are: What is the nature of the knowledge that we want to develop? and What is the position of humans (students) within that educational reality?

Unlike previous curricula, which often got trapped in a positivist view—where knowledge was seen as a collection of final, objective facts that must be transferred from teacher to student—the Merdeka Curriculum views knowledge as something dynamic and contextual. Ontologically, knowledge in the Merdeka Curriculum is no longer just a passive “object,” but rather a “process” (Manggala & Sauri, 2024).

Knowledge is recognized to have diverse forms (ontological pluralism). This is evident from the space provided for local content and the flexibility of learning outcomes. Knowledge is no longer seen as a single truth coming from the center, but rather as a construction whose validity heavily depends on its relevance to the students' environment (Widuri et al., 2025). For example, knowledge about ecosystems for students in coastal areas such as Samosir will have a different construction compared to students in urban areas like Bandung (Kartika et al., 2025; Putri et al., 2024).

The most radical change occurs in the view of the nature of students. From the perspective of the Merdeka Curriculum, students are ontologically independent subjects with their own natural dispositions. This aligns with the philosophy of Ki Hajar Dewantara, who stated that a child is not a blank sheet of paper that can be drawn upon at will by adults (Putu et al., 2023). Students are seen as “little researchers” who have an inherent potential to construct their reality. In implementation at various schools, as observed at MA Mukhtar Syafaat, it is evident that when students are given the freedom to choose their own learning paths, they show motivation that is intrinsic in nature (Ulfa & Khaudli, 2025). Ontologically, the existence of students is recognized as unique individuals through differentiated learning, not as mass products of the education industry.

Epistemological Analysis: Mechanisms of Knowledge Construction

Epistemology discusses how to acquire knowledge and what means are used to achieve that truth. In the Merdeka Curriculum, this mechanism shifts from a deductive-instructional method to an inquiry-constructivist approach. The epistemological mechanism of the Merdeka Curriculum is greatly influenced by John Dewey's pragmatism, where knowledge is acquired through activity (Arini et al., 2024). Students do not only “know that” but also “know how.” The main means of acquiring this knowledge is through Project-Based Learning (PjBL), formalized in the Pancasila Student Profile Strengthening Project (P5).

Through P5, students conduct observations, collect data, and draw conclusions independently. This represents a tangible form of scientific methodology integrated into primary and secondary education. For example, at SMA 1 Palilpi, the active involvement of students in these projects has been shown to enhance critical thinking skills because they are required to validate the information they find in the field (Putri et al., 2024). Epistemologically, the criterion of “truth” in the Merdeka Curriculum no longer solely relies on the quantitative scores of end-of-semester summative tests. Truth in learning is validated through continuous reflection and formative assessment processes. Teachers function as logical verifiers who monitor whether students' construction of knowledge is on the right track (Mariska et al., 2024). This approach recognizes that mistakes in the learning process are part of the dialectic of seeking truth, not merely cognitive failures.

Axiological Analysis: Values and Goals of Knowledge

The highest value (*summum bonum*) of the Merdeka Curriculum is the formation of the Pancasila Student Profile. Knowledge is not considered valuable if it cannot shape a character that is faithful, independent, critically thinking, creative, cooperative, and globally aware. Here, knowledge is subject to ethics and morality. The axiology of the Merdeka Curriculum places character as the main foundation; knowledge without character is seen as a threat to humanity. Practically, the Merdeka Curriculum has useful value in preparing students to face the Society 5.0 era. The emphasis on digital literacy and problem-solving skills shows that this curriculum is highly pragmatic in addressing future needs (Nikma et al., 2023). Knowledge is constructed so that students have global competitiveness without losing their local identity.

However, from an axiological perspective, challenges remain. One major issue is the administrative burden that still affects teachers. If teachers become trapped in the formalities of documentation, the value of learning independence—philosophically promoted in the curriculum, may collapse into mere bureaucratic routine (Ulfa & Khauldi, 2025). In this way, the construction of knowledge, which should liberate, risks becoming a new constraint if technical standardization dominates over philosophical substance.

CONCLUSION

This study concludes that the Merdeka Curriculum is not merely a technical-administrative transformation, but a knowledge construction grounded in a solid philosophical foundation within the framework of the philosophy of science. Ontologically, the Merdeka Curriculum reformulates the nature of knowledge from a static entity to a dynamic-contextual one, positioning students as autonomous subjects with a natural disposition to be independent in learning. Epistemologically, this curriculum shifts the paradigm of knowledge acquisition from instructional methods toward inquiry-constructivist approaches, where knowledge is validated through direct experience (learning by doing) and continuous reflection processes. Axiologically, the Merdeka Curriculum emphasizes that the ultimate goal of education is not merely to produce skilled workers in an instrumental sense, but to shape holistic individuals through the internalization of the values of the Pancasila Student Profile.

The synergy between the streams of Progressivism, Constructivism, and Ki Hajar Dewantara's philosophy has created a more humane and adaptive face of education in response to the demands of the times. However, this knowledge construction still faces serious challenges in its implementation, particularly concerning the readiness of educators' mentality (mindset) and the limitations of supporting infrastructure in various regions. Without a deep

philosophical understanding, there is a significant risk that the "freedom" in this curriculum will be trapped in procedural formalities, which in turn creates a new administrative burden for teachers

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