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Innovative Learning Design Based On Deep Learning And Independent Curriculum In Schools State Junior High School 01 Cigeulis

Marpuah[1], Nono Suhada[2], Siti Muzdalifah[3], Siti Laela[4]
[1,2,3,4]Universitas Bina Bangsa, Manajemen Pendidikan
Corresponding Author: marpuahmar65@gmail.com

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ABSTRACT

The implementation of the Independent Curriculum demands a shift in the learning paradigm from merely transferring knowledge to developing students' competencies and character. However, at SMP Negeri 01 Cigeulis, conventional learning methods are still dominant, resulting in low levels of deep cognitive engagement (deep learning) among students. The lack of innovation in learning design has resulted in the curriculum's flexibility not being optimally utilized to create meaningful and contextual learning experiences tailored to student characteristics. This study aims to design and describe an innovative learning design that integrates Deep Learning principles within the Independent Curriculum framework. Furthermore, this study seeks to identify the contribution of this integration to improving conceptual understanding and strengthening the Pancasila student profile. The method used was a qualitative approach with a descriptive-analytical approach. Data were obtained through classroom observations, in-depth interviews with teachers, and documentation studies of teaching modules. The research subjects included teachers and students at SMP Negeri 01 Cigeulis. The results indicate that the implementation of a Deep Learning-based learning design can increase student engagement through contextual problem-based and project-based learning strategies. The flexibility of the Independent Curriculum provides teachers with the opportunity to integrate local wisdom, thereby increasing student motivation. Furthermore, critical thinking skills, collaboration, and independent learning are enhanced. Thus, the integration of Deep Learning into the Independent Curriculum has proven effective in creating meaningful, in-depth, and student-centered learning.

Keywords: Innovative Learning Design, Deep Learning, Independent Curriculum, Cognitive Engagement

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INTRODUCTION

Educational transformation in Indonesia continues to evolve in line with the increasingly complex demands of the times. The era of globalization and the Fourth Industrial Revolution (4.0) demands that education focus not only on knowledge transfer but also on developing critical, creative, collaborative, and communicative thinking skills(Langoday et al., 2024). In this context, the implementation of the Independent Curriculum (Curriculum Merdeka) is one of the government's strategic efforts to create a more flexible, student-centered learning system that optimally accommodates individual needs and potential. This curriculum provides ample room for teachers to design innovative, contextual, and meaningful learning.However, in practice, the implementation of the Independent Curriculum still faces various challenges, particularly in the learning design aspect(Penelitian et al., 2022). Many teachers are still accustomed to conventional approaches, such as one-way lectures, which tend to reduce student active engagement. This results in low student cognitive engagement, which ultimately hinders the development of deep learning. Deep learning is a learning approach that emphasizes in-depth conceptual understanding, the ability to relate knowledge to real-world contexts, and the application of knowledge in everyday life(Dewi et al., 2025).

Deep learning in the educational context is not simply the use of advanced technology or artificial intelligence, but rather how the learning process encourages students to develop higher-order

thinking skills. Deep learning-based instruction requires students to analyze, evaluate, and create, not just memorize and understand. Therefore, innovative learning design is key to realizing a learning process that produces meaningful learning experiences(Eryanto & Prasetyono, 2025). Innovative learning design refers to systematic planning that integrates various learning strategies, methods, media, and evaluations designed to improve the quality of the learning process and outcomes(Madeamin & Sahriani, 2025). In the Independent Curriculum, teachers are encouraged to develop teaching modules that are not only oriented toward achieving learning outcomes but also toward strengthening the character and profile of Pancasila learners. This requires teachers to possess sufficient creativity and pedagogical skills in designing learning that is relevant to student needs(Marlina et al., 2023). SMP Negeri 01 Cigeulis, as a junior high school educational institution, also faces challenges in implementing innovative deep learning-based learning design. Based on field observations, the learning process still tends to focus on textual delivery of material and provides little space for students to explore knowledge independently(Salsabila Muharani & S. Syamsurizal, 2025). Furthermore, the limited use of learning media and the lack of variety in learning methods are factors that hinder the optimization of student potential. This situation indicates a gap between the ideal concept of the Independent Curriculum and classroom learning practices. The Independent Curriculum emphasizes Differentiated learning, project-based learning, and problem-based learning should be able to increase active student engagement. However, the implementation of these approaches has not been optimal, resulting in the goal of deep learning not being fully achieved(Syaputra et al., 2023).

Furthermore, teacher competency is also a crucial factor in determining the success of innovative learning designs. Teachers are required to understand student characteristics, design appropriate learning strategies, and utilize technology effectively. In this context, increasing teacher capacity through training and professional development is crucial to support the implementation of the Independent Curriculum(Syaputra et al., 2023). Furthermore, a conducive learning environment also plays a significant role in supporting deep learning. An interactive, collaborative, and exploration-oriented learning environment will encourage students to be more active in the learning process. Therefore, synergy is needed between various parties, including schools, teachers, students, and parents, to create an innovative and sustainable learning ecosystem(Arsalim et al., 2025).

To address these issues, a learning design that integrates deep learning principles with the Independent Curriculum approach is needed. The learning design must be able to create a learning experience that is not only enjoyable, but also challenging and meaningful for students. The use of active learning methods, such as group discussions, case studies, simulations, and problem-based projects, can be an alternative to increase student engagement(Nursa'adah et al., 2025).

Furthermore, the utilization of digital technology can also be a strategy to support innovative learning. The use of online learning platforms, interactive media, and digital learning resources can help students understand the material more deeply. However, the use of technology must be tailored to the needs and circumstances of the students to achieve optimal impact(Mardiati et al., 2024).

Based on this description, it can be concluded that an innovative learning design based on deep learning within the Merdeka Curriculum framework is an urgent need to improve the quality of education. SMP Negeri 01 Cigeulis, as the research object, is relevant for further study to determine how this learning design is implemented and the factors that influence it(Suharnadi et al., 2026).

Therefore, this research is expected to contribute to the development of more effective and innovative learning designs and serve as a reference for teachers and education practitioners in optimally implementing the Merdeka Curriculum. In addition, the results of this study are also expected to provide constructive recommendations in improving the quality of learning, especially in creating in-depth and meaningful learning for students(Juhastri et al., 2026).

METHOD

This study uses a qualitative approach with a descriptive research type that aims to describe in depth the innovative learning design based on deep learning in the implementation of the Independent Curriculum at SMP Negeri 01 Cigeulis. A qualitative approach was chosen because it provides a comprehensive understanding of the phenomena occurring in the field, particularly

regarding the planning, implementation, and evaluation of learning carried out by teachers. Furthermore, this approach allows researchers to more deeply examine the interactions between teachers and students in creating meaningful learning(Luciana, 2026)(Setyaningsih et al., 2025).

The research used a case study, focusing on one specific location: SMP Negeri 01 Cigeulis. The case study was chosen based on the consideration that the school has implemented the Independent Curriculum but still faces various challenges in developing a learning design that encourages deep student cognitive engagement. With this approach, researchers hoped to obtain a comprehensive picture of the actual conditions occurring in the school environment. This research was conducted at SMP Negeri 01 Cigeulis over a period of approximately two months, encompassing the preparation, implementation, and preparation of the research report. The research subjects consisted of the principal, subject teachers, and students directly involved in the learning process. Informants were selected using a purposive sampling technique, based on the assumption that they possess knowledge and experience relevant to the research focus(Ferdaus & Novita, 2023).

Data collection techniques in this study included observation, interviews, and documentation. Observations were conducted directly in the classroom to observe the learning process, including the methods used by teachers, interactions between teachers and students, and the level of student engagement in learning activities. In-depth interviews were conducted with the principal, teachers, and students to obtain information regarding lesson planning, obstacles encountered, and efforts made in implementing deep learning-based instruction. Meanwhile, documentation was used to supplement the data in the form of learning tools such as teaching modules, teaching materials, and other supporting documents(Haan et al., 2025).

The primary instrument in this study was the researcher herself, who played a role in planning, collecting, analyzing, and interpreting data. To support the data collection process, the researcher also used observation guidelines, interview guidelines, and documentation formats to ensure the data obtained was more focused and systematic. The data analysis technique used refers to the Miles and Huberman interactive model, which consists of three stages: data reduction, data presentation, and conclusion drawing. Data reduction was carried out by sorting and simplifying data relevant to the research focus. The data was then presented in descriptive narrative form for ease of understanding. The final stage is drawing conclusions, which is carried out continuously throughout the research process, to obtain valid and accountable findings(Yamin et al., 2025).

To ensure data validity, this study employed triangulation techniques, both source and technical triangulation. Source triangulation was conducted by comparing information obtained from various informants, while technical triangulation was conducted by comparing data from observations, interviews, and documentation. Furthermore, member checking was conducted to ensure that the data obtained aligns with actual conditions in the field. Through this research method, it is hoped that a clear and in-depth picture will be obtained of how innovative, deep learning-based learning designs are implemented within the Independent Curriculum at SMP Negeri 01 Cigeulis, as well as the factors that influence the implementation. Factors that support and hinder its implementation. The results of this study are expected to provide evaluation material and recommendations for improving the quality of learning at the school(SAEPUDIN, 2024).

FINDING AND DISCUSSION

Research on innovative deep learning-based learning designs in the implementation of the Independent Curriculum at SMP Negeri 01 Cigeulis yielded several important findings related to the planning, implementation, and evaluation of learning, as well as the factors influencing its success. The results of this study were obtained through observations, interviews, and documentation conducted with the principal, teachers, and students(APUD SAEPUDIN et al., 2024).

1. Innovative Learning Design Planning

Based on the research findings, learning planning at SMP Negeri 01 Cigeulis adheres to the principles of the Independent Curriculum, characterized by the use of teaching modules instead of lesson plans. Teachers have developed teaching modules that include learning objectives, activity steps, and assessments. However, in practice, some teachers have not fully integrated the concept of deep learning into their learning plans. Most teaching modules focus on achieving basic competencies

and do not explicitly encourage students to engage in in-depth analysis, critical reflection, or contextual problem-solving. This indicates that teachers' understanding of the concept of deep learning remains limited to theoretical aspects and has not been optimally implemented in learning design. In terms of innovation, several teachers have attempted to develop project-based learning and problem-based learning approaches. However, their implementation remains inconsistent and not systematically structured within teaching modules. This indicates that innovative learning planning still requires strengthening, particularly in integrating strategies that can enhance students' in-depth cognitive engagement(Yamin et al., 2025).

2. Implementation of Deep Learning

Observations indicate that classroom learning is still dominated by lecture methods, despite efforts by some teachers to actively engage students through group discussions and Q&A sessions. In some classes, students have begun to engage in simple exploration activities, such as analyzing cases or working on project-based assignments. However, these activities do not fully reflect deep learning, which requires sustained higher-order thinking. Student engagement in learning remains variable. Some students demonstrate high enthusiasm when given the opportunity to discuss or work in groups, while others tend to be passive and await direction from the teacher. This indicates that a culture of active learning has not yet been fully established in the school environment. In the context of the Independent Curriculum, learning should be student-centered. However, research results show that the shift from teacher-centered learning to student-centered learning is still in the transition stage. Teachers still play a dominant role in directing the learning process, thus creating less than optimal opportunities for student exploration. Furthermore, the use of learning media and technology is still limited. Some teachers have utilized digital media such as PowerPoint presentations or instructional videos, but these are still used primarily as tools to deliver material, rather than as a means to encourage interaction and in-depth exploration of knowledge. In fact, in deep learning, technology should be utilized to enrich students' learning experiences(Sari & Setiani, 2025).

3. Learning Evaluation

Learning evaluation at SMP Negeri 01 Cigeulis has shifted toward the use of formative and summative assessments in accordance with the principles of the Independent Curriculum. Teachers have begun using various forms of assessment, such as assignments, projects, and presentations. However, most evaluations still focus on lower-level cognitive aspects, such as recall and comprehension. Assessments that measure higher-level thinking skills, such as analysis, evaluation, and creativity, have not been implemented optimally. Furthermore, the feedback provided to students does not fully support the process of reflection and improvement of learning. This indicates that the learning evaluation system still needs to be adapted to the principles of deep learning, which emphasize the process, not just the end result(Rachmadtullah et al., 2024).

4. Supporting and Inhibiting Factors

Based on research findings, several factors support the implementation of innovative learning designs based on deep learning. These supporting factors include the Independent Curriculum policy, which provides flexibility for teachers, support from schools, and the awareness of some teachers to innovate in learning. However, there are also several significant inhibiting factors. One of the main factors is teachers' limited understanding of the concept of deep learning and its implementation in learning. Furthermore, limited facilities and infrastructure, particularly related to learning technology, also pose a barrier to creating innovative learning. Another contributing factor is the diverse characteristics of students, both in terms of ability and motivation to learn. This requires teachers to be able to implement differentiated learning, which in practice is still not optimal. Furthermore, teachers' administrative burden is also a barrier to developing innovative learning designs(Prahastina et al., 2024).

Discussion

The results of this study indicate that the implementation of innovative deep learning-based learning designs at SMP Negeri 01 Cigeulis is still in its early stages. This aligns with constructivism theory, which states that meaningful learning occurs when students actively construct their knowledge through experience. However, in practice, learning tends to be transmissive, with the teacher being

the primary source of information. From a deep learning theoretical perspective, learning should encourage students to connect new knowledge with prior knowledge and apply it in real-world contexts. However, the results of this study indicate that This process has not been running optimally, resulting in surface-based learning(Marthawati & Setyo, 2024).

Furthermore, constructivist learning theory also emphasizes the importance of social interaction in the learning process. In this regard, the group discussion and collaborative learning activities introduced at SMP Negeri 01 Cigeulis represent a positive step that needs to be further developed. However, more thorough planning is needed to ensure these activities are truly effective in increasing student cognitive engagement. In terms of evaluation, research results indicate that the assessments conducted do not fully reflect the principles of authentic assessment. In the Independent Curriculum, assessment should not only measure learning outcomes but also serve as a tool to support the learning process. Therefore, it is necessary to develop assessment instruments capable of measuring higher-order thinking skills and providing constructive feedback to students(Azizah et al., 2025).

Overall, this research indicates that the successful implementation of innovative learning designs based on deep learning is significantly influenced by teacher competence, the availability of facilities and infrastructure, and support from the school environment. Therefore, comprehensive and sustainable efforts are needed to improve the quality of learning, including through teacher training, curriculum development, and the provision of supporting facilities. Thus, it can be concluded that although SMP Negeri 01 Cigeulis has begun to move towards implementing innovative learning based on deep learning, various improvements and strengthening are still needed so that its implementation can run optimally and in accordance with the objectives of the Independent Curriculum(Kurniawati et al., 2025).

CONCLUSIONS

Based on the research and discussion on innovative deep learning-based learning designs for the implementation of the Independent Curriculum at SMP Negeri 01 Cigeulis, it can be concluded that the implementation of this learning is not yet fully optimal and is still in the development stage. In terms of planning, teachers have developed teaching modules in accordance with the principles of the Independent Curriculum, but the integration of deep learning concepts into the learning design is still limited. Learning planning tends to focus on achieving general learning objectives and does not systematically encourage students' higher-level cognitive engagement. In terms of implementation, the learning process demonstrates efforts to implement more varied methods, such as group discussions and project-based learning. However, the lecture method remains quite dominant, so learning is not fully student-centered. Active student engagement in learning also varies, indicating that a culture of deep learning has not yet been optimally established. In terms of evaluation, teachers have begun using various forms of assessment, but most are still oriented towards lower-level cognitive abilities. Assessments that can measure higher-level thinking skills and encourage student reflection still need to be improved to align with the principles of deep learning and the Independent Curriculum. Supporting factors for the implementation of innovative learning include the flexible Merdeka Curriculum policy, school support, and the motivation of some teachers to innovate. Meanwhile, inhibiting factors include teachers' limited understanding of deep learning, limited facilities and infrastructure, and the suboptimal implementation of differentiated learning. Therefore, ongoing efforts are needed to improve teacher competency in designing and implementing innovative, deep learning-based learning, as well as support from various parties to create a conducive learning environment. This is crucial for optimal achievement of the Merdeka Curriculum's goal of creating meaningful, in-depth, and student-centered learning..

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