

Readiness of Junior High School Educational Units in Implementing the Deep Learning Approach

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Abstract: The implementation of the deep learning approach at the junior high school level is a strategic necessity to improve the quality of education and students' competencies holistically. The application of the deep learning approach at the junior high school level becomes an important need to enhance the quality of learning and the comprehensive development of student competencies. The deep learning approach emphasizes meaningful conceptual understanding, critical thinking, and active student engagement in the learning process. This research employed a quantitative descriptive method, with data collected through observations and questionnaires distributed to several junior high school principals as respondents. The sampling technique used was purposive sampling, in which principals were selected based on specific criteria such as the school's accreditation level, the availability of learning facilities, and involvement in curriculum development or innovation programs. Based on the survey responses, 87.5% of principals agreed that deep learning is essential for improving students' critical thinking and problem-solving skills. Recommendations are provided to enhance the capabilities of school principals, improve facilities and infrastructure, and the Teaching and Learning Activities (KBM) process to support the implementation of more effective and meaningful learning at the junior high school level. The implementation of the deep learning approach at the junior high school level is a strategic necessity to improve the quality of Education and student competencies holistically. The application of the deep learning approach.

Keywords: Deep Learning, School Readiness, Junior High School, Competence, School Principal

Introduction

Education today faces increasingly non-linear challenges. It no longer operates as a static space; instead, it is confronted with rapid technological advancements that demand changes in teaching methods, learning content, and educational goals. In this context, deep learning refers to an instructional approach that emphasizes conceptual understanding, critical thinking, and the ability to transfer knowledge to new and unfamiliar situations. This approach requires cognitive, affective, reflective, and metacognitive engagement, enabling students to build sustainable competence rather than merely acquire factual knowledge. Deep learning positions students at the center of the learning process, aiming to promote meaningful, mindful, and joyful learning. To ensure successful implementation, teachers must receive adequate training and institutional support. However, limited understanding of deep learning among both teachers and students continues to pose a significant challenge. Several underlying factors contribute to this issue, including:

1. Curricula that still emphasize content mastery over higher-order thinking, making deep learning difficult to integrate
2. Insufficient professional development opportunities, particularly training focused on inquiry-driven and student-centered pedagogy

3. Traditional mindsets among educators and learners who are accustomed to rote memorization and teacher-centered instruction.

These factors result in learning environments where awareness of the learning process remains low, thereby preventing optimal learning outcomes. Deep learning offers a pathway for students not only to master factual material but also to develop the character, competencies, and 21st-century skills required to navigate unpredictable future challenges. It is also seen as a response to persistent problems such as low literacy and numeracy performance, as well as the growing need for advanced thinking skills. As access to digital technology increases, it becomes essential to examine how technological integration influences both the psychological and academic development of students. While digital tools have the potential to enhance motivation and increase learning effectiveness, their impact is maximized only when paired with pedagogical approaches that align with student needs. Nevertheless, several obstacles still hinder the implementation of deep learning. Schools often face limited resources, such as inadequate teaching materials, insufficient learning technologies, and underdeveloped facilities. For example, many schools have limited access to digital devices or unstable internet connectivity, which restricts the use of interactive or inquiry-based learning platforms. Learning activities in many classrooms also continue to rely heavily on memorization and one-way instruction, which stands in contrast to the collaborative and reflective nature of deep learning.

Therefore, changes are needed to shift teaching and learning practices toward more active, creative, and reflective models. Strengthening teacher competence, improving infrastructure, and aligning curricula with deep learning principles are essential steps toward achieving meaningful educational transformation.

Methods

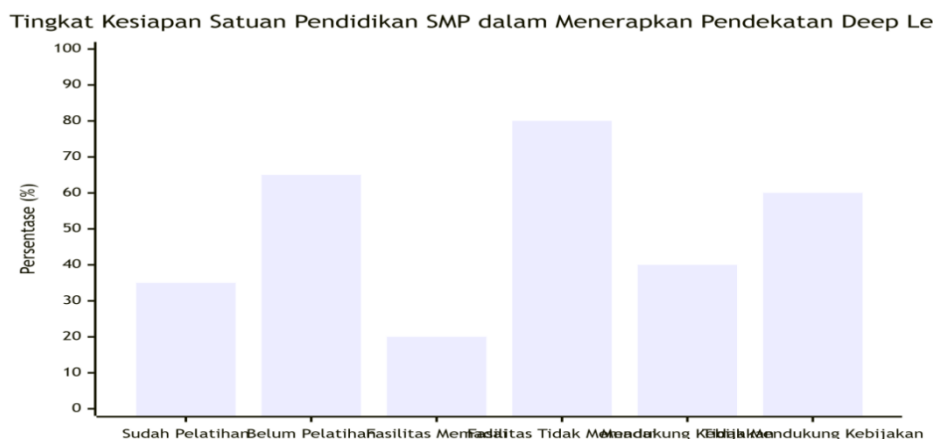
This research employed a descriptive quantitative approach. Data were collected using a questionnaire distributed to several Junior High Schools in Melawi Regency, with school principals serving as respondents. The instrument consisted of Likert-scale items designed to measure the readiness of educational units in implementing deep learning. The data were analyzed using percentage techniques and descriptive interpretation to illustrate the overall readiness levels across schools. The use of a questionnaire-based quantitative method was considered appropriate for several reasons. First, it enables the systematic collection of data from a relatively large number of respondents, allowing for generalizable findings across multiple schools. Second, quantitative questionnaires are effective for capturing principals' perceptions in a structured and comparable format, thereby producing valid and reliable data that can be analyzed statistically. This approach also facilitates the measurement and evaluation of key readiness indicators, offering clarity and consistency in interpretation. Although qualitative methods—such as interviews or focus group discussions—could provide deeper insight into the challenges of implementing deep learning, the primary objective of this study was to obtain an overall picture of readiness levels across different educational units, rather than to explore individual experiences in depth. The descriptive quantitative approach thus allowed the researcher to identify trends, patterns, and variations efficiently. However, qualitative exploration remains a valuable recommendation for future studies to further

investigate the contextual and operational challenges that were only briefly captured through the questionnaire.

Results and Discussion

Level of Readiness of Junior High School Educational Units in Implementing the Deep Learning Approach

Image 1. Tingkat Kesiapan Satuan Pendidikan SMP dalam Menerapkan Pendekatan Deep Learning



The importance of deep learning, but still face constraints in terms of principal and teacher training, limitations of facilities and infrastructure, and a lack of policy support, especially considering the geographical location of some junior high schools in Melawi Regency are in 3T regions (Frontier, Outermost, and Disadvantaged). As many as 65% of respondents had never participated in training related to deep learning.

The research results indicate a gap between awareness and implementation capacity. School principals and teachers understand the importance of deep learning, but not all have the capacity to implement it consistently. This condition shows that the successful implementation of deep learning requires systemic support, continuous training, and a paradigm shift in learning evaluation.

The transformation from understanding to real practice still faces various fundamental obstacles.

1. Gap Between Awareness and Implementation

The finding that 65% of respondents (principals) have never participated in training related to deep learning is a key indicator of the root of the problem. High awareness is not matched by adequate competence. This is in line with the research of Putri (2024) which also found that teachers' understanding of deep learning is still conceptual and lacks application. School principals, as the spearhead of pedagogical change in schools, do not yet have sufficient provisions to lead and guide teachers in implementing this approach. Consequently, classroom learning often remains trapped in the old paradigm oriented towards rote memorization and one-way knowledge transfer, as identified in the introduction.

2. Systemic and Infrastructural Challenges

Limitations in facilities and infrastructure, as well as the geographical conditions of some schools located in 3T regions (Frontier, Outermost, Disadvantaged), exacerbate this gap. These constraints are not only technical but also systemic. As revealed by Dewi (2022), the integration of technology—which is one of the supporting elements of deep learning—requires adequate infrastructure. This uneven access creates a "digital divide" which ultimately hinders the creation of meaningful, mindful, and joyful learning experiences as idealized by Mustaghfirin & Zaman (2025). Furthermore, the lack of policy support and conventional assessment systems also reinforce the status quo. Assessment systems focused on low cognitive aspects will not be able to measure deep learning achievements such as critical thinking, creativity, and metacognitive abilities.

3. The Need for Paradigm Shift and Continuous Support

This condition indicates that the success of implementing deep learning cannot rely solely on the initiatives of individual teachers or schools, but requires comprehensive systemic support. Eryanto (2025) asserts that the effectiveness of deep learning in the Merdeka Curriculum highly depends on the readiness of all stakeholders. This includes:

- **Continuous Training:** Intensive and sustainable training and mentoring programs are needed, not just one-off sessions, for school principals and teachers. Training must cover aspects of philosophy, planning, classroom practice, to authentic assessment techniques.
- **Managerial and Policy Support:** School principals need to be encouraged to apply transformational leadership styles (as mentioned by Robani & Mustofa, 2024) that facilitate teacher innovation and create a collaborative learning environment. Local and central governments need to support with policies that prioritize budgeting for capacity building and infrastructure improvement, especially in 3T regions.
- **Revolution of Teaching and Learning Activities (KBM):** A shift from the teacher-centered model to student-centered is necessary. Teachers need to be encouraged to design learning that triggers curiosity, problem-solving, and reflection on the learning process, as per the deep learning principles promoted by the Ministry of Education and Culture (Kemdikbud, 2023).

Overall, this study underscores that the path towards implementing deep learning at the junior high school level, especially in regions like Melawi Regency, is still long. Awareness is a good first step, but it must be followed by collective commitment and real action to build an educational ecosystem that truly allows this approach to grow and be sustainable.

Conclusion

The deep learning approach is considered a strategic necessity to improve the quality of education and student competencies holistically, by emphasizing conceptual understanding, critical thinking, and active student engagement. Although most junior high school educational units are aware of the importance of this approach, the readiness for its implementation is still low. The main challenges include:

- **Training Limitations:** 65% of school principals have never attended training related to deep learning.
- **Facilities and Infrastructure:** Inadequate infrastructure, especially in 3T regions.
- **Systemic Support:** Lack of supportive policies and appropriate assessment systems.

Gap Between Awareness and Implementation: There is a gap between the conceptual understanding of school principals and teachers and their ability to consistently implement this approach. This indicates the need for systemic support, continuous training, and a paradigm shift in learning evaluation.

Recommendations: Efforts are needed to enhance the capacity of school principals and teachers, improve facilities and infrastructure, and adjust the Teaching and Learning Activities (KBM) process to support the implementation of effective and meaningful deep learning.

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