Journal of Deep Learning

https://journals2.ums.ac.id/index.php/jdl

Fundamental Concepts of Deep Learning: Principles in Advancing Holistic Education Practices

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DOI: xxx
Received: June 30th, 2025. Revised: July 25th, 2025. Accepted: August 2nd, 2025
Available Online: August 5th, 2025. Published Regularly: December, 2025

Abstract

This research aims to explore the application of the fundamendal concept of deep Learning (DL) in the context of holistic education in Indonesia. The method used is library research by collecting and analyzing information from various relevant written sources. The result show that the implementation of DL, These are three main principles in deep learning, namely mindful, meaningful, and joyful, which are interrelated and contribute to student character building. The mindful principle emphasizes awarness and reflection in the learning process, while the meaningful principle relates the subject matter to the context of student's lives, and the joyful principles creates a fun learning atmosphere. These three principles not only ain to improve academic understanding, but also support student's social and emotional development. The research also identifies challenges in implementating DL, including the need for minset change among educators and support of a conducive learning ecosystem. The findings are expected to provide new insights for educators and policy makers in creating a more inclusive and adaptive learning environment.

Keywords: deep learning, holistic education, joyful learning, meaningful learning, mindful learning

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1. Introduction

The transformation of Indonesian education today is characterized by the strengthen- ing of the "Merdeka Curriculum" policy, which emphasizes in-depth, learner-centered instruction (Hidayani et al., 2025). Indonesia face complex and unpredictable challenges, both now and in the future. The learning quality crisis is still an internal factor in Indonesia education which has an impact on low literacy and numeracy skills, as reflected in the PISA result in 2022 (Pusmendik, 2025). The competence of teachers who need to have a growht mainset is also another challenge. To answer these challenges, the transformation of a structured, systemic, and massive education system is urgent in the learning process in every classroom to realize holistic, humanist, and equitable education (Kemendikdasmen, 2025).

Indonesia has diversity which is an asset to create contextual and meaningful learning. Supported by the use of tecnology and the momentum of the 2045 Demographic Bonus, it is both a challenge and great opportunity to

realize the vision of a Golden Indonesia 2045 (Nuriman et al., 2025). Primary and secondary education in Indonesia seeks to accelerate the impact of education through various learning approaches, one of which is deep learning (DL) (Fatmawati 2025).

DL is a new paradigm educational discourse in Indonesia. Whose implementation is still at the exploration stage. The goverment through the Ministry of Primary and Secondary Education has rolled out DL-based Learning in the 2025 Acadeic Paper Entitled Deep Learning Toward Quality Education for All, Abdul Mu'ti said that DL is a pedagogical approach that emphasize learning processes that are reflective, critical, and meaningful. This approache offers revolutionary potential for a thorough and deeper personalization of learning (Gufron & Suryahadikusumah, 2024). In deep learning, there's a key word: the process of honoring students. This key word underpins mindfulness, one of the pillars of deep learning.

DL approach is characterized by intrinsic motivation owned by students in understanding and critically engaging themselves, while surface learning is characterized by students who learn only because they are driven by external motivation, so learning is seen as a necessity to complete tasks or just want to meet the minimum requirements so that students are more focused on memorizing without understanding concepts deeply (Kemdikdasmen, 2025). The concept of DL focuses not only on mastering the material, but also on developing a holistic learning experience for students (Mariana & Hula, 2024). The deep learning approach integrates three priciples, mindful, meaningful, and joyful. These three priciples contribute to the creation of a learning environment that can enhances academic understanding and support student's social and emotional development (Arif et al., 2025).

The joyful principle in DL emphasizes the the importance of creating a pleasant learning atmosphere (Saridudin, 2025). When student feel happy and involved in the learning process, they tend to be motivated to actively participate. Gifari's research (Gifari et al., 2025) states that an enjoyable learning experience can improve information retention and critical thinking skill. Thus, this approach does not merely concentrate on academic outcome, but also on the positive experiences students have during the laerning process.

Furthermore, the meaningful principle emphasizes the importance of connecting subject matter with student's life experiences and contexts (Rahayu et al., 2025). Meaningful learning helps students to understand the relevance of the material learned, so they can relate new knowledge more contextually. This contributes to the development of critical thinking skill and proble solving abilities (Hidayat & Haryati, 2025). By creating a relevant context, students can see the value of what they are learning, which in turn increases their motivation and engagement (Huda et al., 2025). The mindful principle in DL focuses on awareness and reflection (Epik et al., 2025). This principle stimulates student to be more aware of their own learning process, realizing their strenght and weaknesess (Adnyana, 2024). Mindfulness in education can improve focus, concentration, and the ability to manage stress. By integrating mindful elements, students are taught not only to be passive learners, but also to actively reflect on their understanding and skills holistically (Huda et al., 2025).

The three principles of DL as a whole and systematically not only improve the quality of education in Indonesia, they became a catalyst

for transformation that can encourage collective awareness and accelerate the achivement of national education goals (Thariq & A'yun, 2024). Strategic steps to implement DL need to be supported by a condusive learning ecosystem, broad and meaningful learning partnership, and effective utilization of digital technology in order to realize learning that is mindful and attentive, relevant, learning with joy, enthusiasm, and passion (Raup et al., 2022).

Despite the huge potential of DL, there are some research gaps that need to be filled. Many of the studies that have been conducted focus more on the technical aspect and implementation of the methode, while te social and psycological impact of this approach in an educatioal context is less explored. Further reseach is needed tto understand how joyful, meaningful, and mindful principles can be effectively integrated in an inclusive and adaptive curriculum.

The novelty of this research lies in developing a learning concept that incorporates these three principles in a holistic educational context. By creating a framework that considers student's mental and emotional health, this research seeks to make a new contribution to the educational literature. This is important to ensure support students's holistic development

The purpose of this research is to explore how the basic concept of DL, how DL can be implemented in a holistic educational context. In addition, this research aims to add to the literature for educators and policy makers in creating a more inclusive and adaptive learning environment. Thus, the research result are expected to provide new insigths for future educational practices.

2. Method

This study employs a qualitative library research approach, which is characterized by the systematic collection and analysis of written materials, including manuscripts, journal articles, books, and other relevant documents that align with the research topic. The primary goal of this method is to gather and critically interpret information from secondary sources to formulate a comprehensive and original understanding of the subject under investigation (Alaslan, 2023). This method allows researchers to explore conceptual frameworks and theoretical discourses on deep learning (DL) within the context of holistic education, without conducting field-based empirical data collection.

The data collection technique in this research was carried out through extensive library research. Relevant information was obtained from a variety of sources including scientific books, peer-reviewed journal articles, academic papers, and other documents discussing DL and holistic educational approaches. These sources were retrieved from credible academic databases such as Google Scholar, Scopus, and Perris and Publish. To ensure the relevance and quality of the references used, the selection criteria for the sources included: (1) the topic must be directly related to deep learning and holistic education; (2) the source must have been published within the last five years; and (3) the source must demonstrate strong academic credibility. Particular attention was given to prior studies that examine the application of DL principles—mindful, meaningful, and joyful—in the design and implementation of holistic learning environments (Nasution, 2023).

Once the data were collected, a thematic analysis was conducted to identify recurring

patterns and classify the information into coherent categories or subtopics. These themes were constructed to reflect different aspects of the integration of DL in holistic education. This analysis process also involved synthesizing insights from various sources to obtain a more nuanced and comprehensive understanding of the topic under investigation. The synthesis included comparative analysis of multiple research findings to identify commonalities, differences, and emerging perspectives. Furthermore, a critical review of each source was undertaken to assess the strengths and limitations of the arguments presented, as well as to evaluate the methodologies employed in the referenced studies (Mulyana et al., 2024).

The results of this analytical process are presented in the form of a structured narrative, providing a systematic summary of the main findings from the literature. These findings highlight how the DL approach is conceptualized and applied in the context of holistic education across various studies. The analysis further discusses the implications of these findings for future educational policies and teaching practices, particularly in Indonesia. This discussion includes practical strategies for integrating DL principles in the classroom, as well as recommendations for educators and policymakers on how to create learning environments that are more inclusive, adaptive, and aligned with the developmental needs of learners (Hasan et al., 2025).

Through this methodological approach, the study contributes to the existing body of knowledge by offering a synthesized and critical perspective on the role of deep learning in transforming educational practices toward a more holistic, student-centered paradigm.

3. Result and Discussion

Deep learning in the field of education has a meaning distinct from the technical definition used in artificial intelligence (Utomo et al., 2025). Deep learning has a fundamental role in building an education system that is oriented towards whole and holistic human development (Akmal et al., 2025). This philoshophy is the foundation that direct the goals and processes of education so that they are always relevant to social context, culture, and challenges of the times and reflect human ideals in building an inclusive and progresive society. As empasized by Raup et al. (2022) in their research stated that, education is a tool to build an ideal society that reflect universal values such as freedom, justice, and humanity, by integrating them into the life experiences of students.

The concept of ideal education in DL is to liberate, shape character, and empower people to contribute positively to society. Education should be oriented towards the independence of students and the process of forming humans with integrity (Gifari et al., 2025). Deep learning is defined as an approach that empasizes the creation of a learning atmosphere and learning process that is mindful, meaningful, and joyful through intellectual/mind (*olah pikir*), ethical/heart (*olah hati*), aesthetic/taste (*olah rasa*), and kinesthetic/body (*olah raga*) in a holistic and integrated manner. Furthermore, DL must be able to answer collective and individual needs by integrating spiritual, intellectual, and social values holistically. This view synergizes with Rahmat's reseach Rahman et al. (2023) whice states that education must develop higher order thinking skills such as the ability to analyze and synthesize, so that students are able to understand and face complex challenges. In the DL approach, students are not active social change actors in

solving real problems through reflection and collaboration (Natsir, 2025). Deep learning is considered one of the most relevant approaches for developing these skills, as it actively, reflectively, and contextually engages learners in the learning process (Prihantoro et al., 2025).

The deep learning approach to builds academic skills, character, creativity, and empathy, so that students grow into whole individuals who are in tune which goal demands. Wijaya, (2025) suggest that this principle is in line with his research which emphasizes that education must be relevant to social life. Building a justice, dynamic, and value-based society. This philosopy is based on a holistic view of education that prioritizes the balance between intellectual, emotion, spiritial, and physical aspects. Hendrianty et al. (2024) adds that through DL, it is possible to synchronize holistic learning.

Deep learning goes beyond the ability to memorize or recognize facts quickly. But emphasizes on the meaning and relationship between concept comprehensively focusing on developing a deepeer understanding of the subject matter through a thorough learning experience, where students cognitive and emotionally involved in their learning process (Fatmawati 2025). This approach ensures students understand the gist og concept and be able to relate it to relevant practical context in real life. Student are not crammed with theoretical things but lead to contextualization of knowledge (Girsang & Rahayu, 2025). Deep learning allows students to apply their knowledge in different situation and contexs. This approach seeks to transform the traditional learning paradigm that tend to emphasize memorization and repetition of information into more constructive and reflective learning (Junaidi et al., 2025).

Fundamental concept in the implementation of DL must strat from changing the minset of educators. Research Muvid (2024) suggest that the deep learning, is just an ordinary syndrome discourse due to the change of ministers if it is not accompanied by understanding and application in learning. in the end learning will continue as is should. This kind of mindset will reduce teacher motivation and productivity to teach. will trigger a response of teacher rejection of policy changes as an annual cycle that repeats the impact of curriculum changes that are not balanced with linear awareness. This is reinforced by research from Jauhari (Jauhari et al., 2025) which says that teacher readiness in implementating deep learning needs to be instilled. There needs to be a common perception between all parties directly related to the uniformity of the teacher mentoring forum, training held by teacher working group, or teacher who have experience as a driving teacher or driving school programe, so that DL can be applied, and able to adjust to student learning condition and supporting facilities in the education unit (Fatihah & Wiji, 2025).

The commond perception of the concept of DL begins with an understanding of DL framework. The deep learning framework consist of four cpmponent, namely (1) graduate profile dimension, (2) learning principles, (3) learning experience, and (4) learning framework. The deep learning graduate profile must meet the criteria consisting of eight dimensions, namely, (1) faith and devotion to God Almighty, (2) citizenship, (3) critical reasoning, (4) creativity, (5) collaboration, (6) independence, (7) health (8) communication. The dimensions of graduate profile is the complete competence that must be possesed

by each learner after completing the learning and education process (Kemendikdasmen, 2025). The principle of DL consist of mindful, meaningful, dan joyful. These principles consist of pedagogical practices, learning environments, learning partnerships, and the utilization of digital technologies (Suwandi, Putri, R., 2024).

The implementation of the deep learning approach lies in the teacher's ability to understand the step of implementation. This is highly dependent on teacher's ability to manage learning conditions, and utilize all learning component resource. The teachers are required to master various learning methods before applying DL so that substance of learning can be achieved (Hariyanti, 2024). In this discussion, researchers will explore each deep learning framework in detail and relate it to the holistic learning process.

a. Principles of Deep Learning

1) Mindful Learning

The mindful principle in deep learning (DL) refers to students' learning experience when they possess the awareness to act as active learners. Students who engage mindfully understand the learning objectives, are intrinsically motivated to learn, and develop self-directed learning strategies to achieve their goals. Mindfulness entails more than just cognitive comprehension—it involves being mentally and physically engaged in the learning process, welcoming new experiences, and maintaining openness as lifelong learners (Rahman et al., 2023).

In today's digital era, which is saturated with distractions, cultivating students' mindfulness during learning is a critical challenge. The principle of mindfulness specifically addresses issues related to attention, focus, stress management, and self-regulation (Purwanto et al., 2025; Adhantoro et al., 2024). Diputera and Zulpan (2024) found that practicing mindfulness positively contributes to students' mental well-being, which in turn enhances academic achievement. By recognizing and managing their emotions—especially anxiety and stress—students can reflect more deeply on their strengths and areas for improvement.

To implement mindful learning effectively, several strategies can be adopted. These include maintaining reflection journals, engaging in metacognitive dialogues, and conducting feedback sessions that help students identify their progress and challenges (Sari & Arta, 2025). Additionally, simple techniques such as short meditation and breathing exercises during class can significantly improve students' focus and emotional regulation (Komariyah, 2025). Notably, Suwandi & Putri (2024) assert that mindful learning can be successfully applied regardless of class size, highlighting its scalability across diverse learning environments.

The positive impact of mindful learning is further illustrated in Figure 1, which shows a marked increase in student engagement scores after implementing DL principles, particularly mindfulness. The average score for mindful engagement increased from 60 to 85 post-intervention, demonstrating its efficacy.

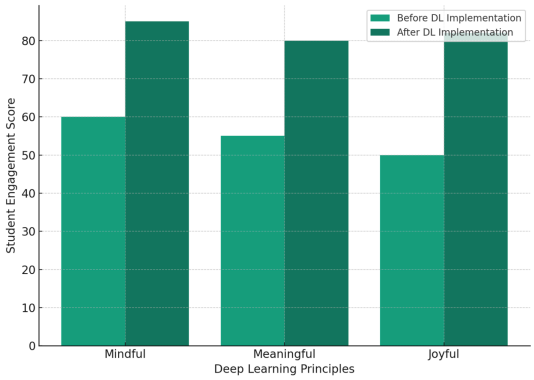

Figure 1. Student Engagement Before and After DL Implementation

2) Meaningful Learning

Meaningful learning occurs when studets can relate new information to their knowledge that forms a deep understanding of a concept (Salmi et al., 2023). The principle of meaningful learning not just memorization and mastering of content, but is oriented towards apply knowledge by connecting learning to culture, social, and daily challenges. Student are able to relate the relevance of activities in various context local, national, regional, global, and the utilization of the surrounding environnment for learning this contextualization makes them finds who they are, how to place themselves, and how they can contribute back as a form of long-term retention (Sari & Arta, 2025).

Meaningful learning can be implemented by providing a more concrete learning experience. The learning process that involves visual, kinesthetic, and auditory elements allows students to be more active in absorbing the material to conventional methode that rery on lectures. The implementation of meaningful learning practice can be designed in pedagogical strategies through exploration such as through STEAM or inquiry learning methode (Lee, 2021). For example in Math lessons, teachers can relate algebraic concept to real situations in personal financial planning or measurement in daily activities. Students can see the direct relevance and benefit of what they are learning (Raup et al., 2022). In another strategi is problem-based learning project, for example strudent can conduct research on the impact of inorganic waste in their community and develop a workable situasion. In this way, student be able to apply to contribute positively based on what they have learned in defferent and challenging context (Santiani, 2025).

Table 1. Integration of Deep Learning Principles

Deep Learning Principles	Definition	Development focus	Implementation Strategy
Mindful	Awareness and reflection	Self Regulation, attention, stress management	Reffection journals, metacognitive discution, mindfulness tasks
Meaningful	Contextual and relevant learning	Critical thinking, realword application	Project-based learning, STEAM, Inquiry-based learning
Joyful	Emotionally engaging and enjoyable	Intrinsic motivation, emotional connection, creativity	Educational games, collaborative activities, visual media

3) Joyful Learning

Joyful learning centers on cultivating positive emotional experiences during learning. When students feel joyful, they are more likely to express curiosity, creativity, and intrinsic motivation (Mubaroq, 2025). This state is often reached when students' physiological, psychological, and social needs are met—ranging from safety and belonging to appreciation and self-actualization. Saridudin (2025) emphasized that satisfaction of these needs leads to open-mindedness and ethical reasoning aligned with educational values.

To foster joyful learning, educators can employ gamification, group discussions, experiments, interactive media, and experiential learning (Gufron & Suryahadikusumah, 2024). These methods help boost student confidence, communication skills, and independent

learning behaviors (Abrori & Lutfiana, 2025). Empirical findings demonstrate that joyful learning has a significant impact on improving academic outcomes and increasing intrinsic motivation.

The perceived effectiveness of DL implementation, particularly in fostering joyful experiences, is illustrated in **Figure 2**, where nearly 80% of surveyed students found DL either highly or moderately effective.

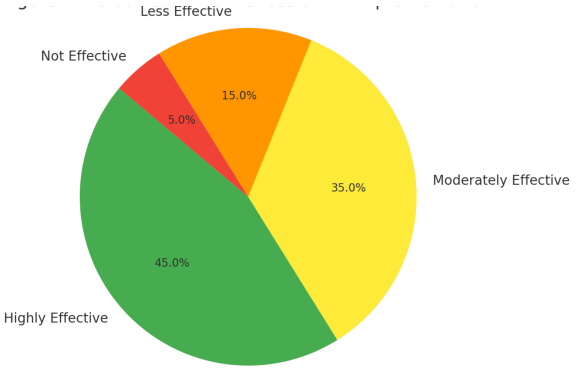

Figure 2. Perceived Effectiveness of DL Implementation

Joyful learning also supports social-emotional development through collaborative activities such as role-playing and team-building, which nurture empathy, cooperation, and mutual respect (Nabila et al., 2025).

Weekly academic improvements resulting from each DL principle are visualized in **Figure 3**, showing steady increases in student scores over a four-week period. Joyful learning yielded a 15-point improvement, demonstrating its practical academic benefit.

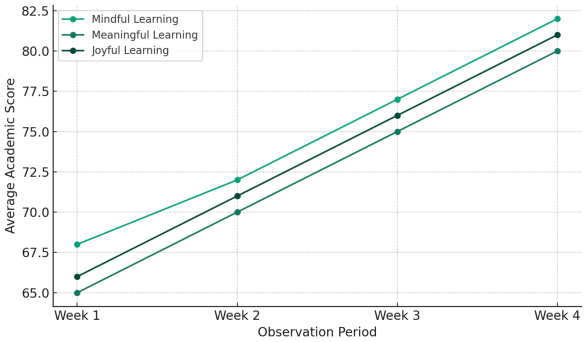

Figure 3. Weekly Academic Score Improvement by DL Principle

b. Holistic Integration of DL Principles

The three DL principles—mindful, meaningful, and joyful—are interdependent. When students experience joy in learning, they become more open to finding meaning. Once learning becomes meaningful, students are more likely to engage in reflection, thereby cultivating mindfulness (Mubaroq, 2025). This cyclical relationship enhances both academic and personal growth.

These principles align with the holistic educational philosophy of *olah pikir* (mind), *olah hati* (heart), *olah rasa* (soul), and *olah raga* (body) (Kemendikdasmen, 2025). *Mind* represents cognitive development; *heart* emphasizes ethics, empathy, and emotional depth; *taste* refines one's sensibility and social harmony; while *body* supports physical well-being, discipline, and resilience. The integration of these four dimensions ensures that education nurtures the whole person—intellectually, emotionally, socially, and physically.

c. Dimensions of the Graduate Profile

The deep learning approach in Indonesia produces eight dimensions of the graduate profile of learning, namely (a) Faith and piety towards God, belief in the existence of God and spiritial values. This value emphasizes the balance between knowledge, morality, relationships with God, fellow humans, and

the surrounding environment. (b) citizenship, an awareness to contribute to (c) critical reasoning, the ability to think logically, rationally, analytically, and reflectively in understand, evaluating, and connecting information. (d) creativity, innovative, thinking out of the box, flexible, creating something original, meaningful, looking at problems from various points of view, and having a positive impact. (e) collaboration, contributing in sharing roles and responsibilities. (f) independence, freedom of choice, responsibility, self-mastery, persistence in achieving goals. Abel to manage time, recources, and action to achieve optimal results. (g) mental and phisycal health in realizing physical and mental well-being (h) communication, able to convey ideas, information, and interact effectively (Kemendikdasmen, 2025).

d. Impementation Deep Larning

The deep learning experience is created through the process of undestanding, applying, and reflecting which is described and elaborated as follows:

1) Understanding

The understanding phase is the initial stage to build awareness of the learning objectives. The type of knowledge in this phase concist of essential knowledge, applicative knowledge, and value and character knowledge (Raup et al., 2022). The main basis of DL implementation requires teachers to understand the differences of each student as a unique individual. It needs to be understood that student who study in one class come from heterogeneous social, economic, and parenting background. The abilities of each student in a class also vary. Thus presenting learning according to needs is a major consideration (Natsir, 2025). Student have different learning style needs to develop their potential or interests and talents. Teachers must be able to create differentiated learning to accomodate diverse learning modalities. Based on Wijaya's research (Wijaya et al., 2025), understanding the different needs of student is a basic skill that teachers need to have before implementating DL. A learning approach that is tailored to the needs o student can be applied as a whole, if the target of learning outcomes, but also the process (Ramadhani, 2025).

2) Appying

This stage is to provide opportunities for students to apply knowledge. This stage involved a multidiclipinary and interdiciplinary approach between subject matter, the result of this stage can be in form of product or learning performance. The involvement of these students can equip life skills so as to foster concern for their role as part the social environment (Santi et al., 2024).

One of strategy applied at this stage, for example in Indonesian language learning , students are taught about argumentation text. In learning, students not only taught how to create argumentation text with a good structure but students are given proficiency in practicing how to argue so that the person can accept the opinion of the person being argued (Pratama et al., 2024). As another example, students can engage in role-playing activities to understand historical concept. In this process, they can relate the information learned to the current social and cultural context (meaningful). After the activity, student can conduct a group reflection to discuss what they learned and how the experience impacted their views (mindful) (Mariana & Hula, 2024).

3) Reflecting

Reflecting is evaluating and interpreting the process and result of the real action or practices they have done. Reflecting aims to understand the extent to which learning objectives are achieved. The reflection stage involves self-regulation as an individual's ability to manage their learning process independently. In this process, students receive specific and relevant feedback from teachers and peers to improve competence. Reflection is done personally for self-developing and contextually to understand their contribution and role in the social environment so that learning becomes more meaningful and sustainable (Gufron & Suryahadikusumah, 2024).

e. Compenent of Deep Learning

1) Pedagogical Practice

Pedagogical practices refer to the teaching strategies that teachers choose to achieve learning objectives in achieving the dimensions of the graduate profile. Strategies that can be used include inquiry-based learning, project based learning, problem based learning, design thinking, STEAM (Science, Technology, Engineering, Arts, Mathematic), dan SETS (Science, Environment, Technology, and Society) (Lee, 2021).

2) Learning Partnership

Learning partnerships form dynamic relationships between teachers, students, parent, community, and professional partners. This approach shifts control of learning from teacher-only to joint collaboration. Teachers can establish student's roles as learning partners who actively design and direct their learning strategies teachers can involve family, community, or society partner who provide support and authentic context for learning. Facilitate connections with experts or professional partner to provide feedback and increase the relevance of learning (Hidayat & Haryati, 2025).

3) Learning Environmental

The learning environment emphasizes the integration between physic space, virtual space, and learning culture to support DL which is designed as a place that encourages collaboration, reflection, exploration, and sharing idea, so as to optimally accomodate various learning styles of students. Learning culture in DL involves establishing positive norms centered on core values. With this integration, the development of knowledge, but also forms holistic skills and character in accordance with the dimensions of graduate profile (Adnyana, 2024).

4) Utilization of Digital Technology

The availability of various learning resources is an opportunity to creat meaningful knowledge for students. The role of digital technology is not limited only a presentation tool and information provider (e,g. displaying materials, videos, and searching for information), but also acts as a collaboration tool (e.g. through workspace platforms or e-learning platforms), and is a medium that supports student exploration and innovation so that they are able to sellect and filter information critically (Salmi et al., 2023; Adhantoro et al., 2025). By integrating these four components, the application of DL becomes more effective, comprehensive, and relevant to the needs of today's students

f. Learning Framework

The characteristic of curriculum used in the implementation of DL include (a) dinamyc, flexible, and responsive, allowing for updates based on the evolving needs of

society accordance with technological advances (b) student-centered, learning that is responsive to the interests, motivations, passions, and talents of students provides opportunities for personalized learning according to their individual styles and rhythms. (c) integrated learning, providing opportunities for students to participate in multidiciplinary and interdiciplinary learning (d) Relevant, subject matter related to life issues and challenges oriented towards skills developmet through project-based learning, inquiry-based learning, and experiental learning (e) utilization of digital technology.

While these pilars has great potential to improve education, there are some challenges in their imlementation. One obstacle is the lack of training and understanding of DL concept among teacherson how to integrate DL principles through learning methods. Many teachers may not be familiar with the holistic approach and prefer traditional teaching methods that focus on academic mastery alone (Gufron & Suryahadikusumah, 2024). Limited resouces in schools that do not have acces to technology or adequate facilities will find it difficult to creat an environment that supports joyful and meaningful learning. In addition, thedifferentiated learning style approach can be maximized if teachers do not teach alone but in teams (Prenger et al., 2021).

Deep learning encourages students to take responsibility for their own learning and reflect on their progress so that they are able to conduct self-assesments, reflect on their own learning achievements and set personal goals. Understanding the concept of DL framework and its implementation in comprehensive learning will result in quality education according to the graduate profile thet supports the development of student's competencies and creates a holistic learning experience for students.

4. Conclusion

This articles present the importance of understanding and applying the conceptof deep learning in the context of education in Indonesia. Deep learning, as a pedagogical approach that focuses on holistic by meaningful, mindful, and joyful learning ecperiences, is expected to answer the educational challenges faced, especially in improving the quality of student learning process.

These are three main principles in deep learning, namely mindful, meaningful, and joyful, which are interrelated and contribute to student character building. The mindful principle emphasizes awarness and reflection in the learning process, while the meaningful principle relates the subject matter to the context of student's lives, and the joyful principles creates a fun learning atmosphere. These three principles not only ain to improve academic understanding, but also support student's social and emotional development. The findings are expected to provide new insights for educators and policy makers in creating a more inclusive and adaptive learning environment. By creating a framework that considers student's mental and emotional health, this research seeks to make a new contribution to the educational literature.

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