



Deep Learning Approaches for Strengthening Character Education in Multicultural Contexts

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ABSTRACT

Deep learning integrates three key aspects: mindful learning, meaningful learning, and joyful learning. The deep learning model is capable of identifying complex patterns through discussions, experiments, projects, and understanding the rationale behind each topic studied, thereby producing a profound and enjoyable learning experience. This study examines deep learning as an effort to instill character in students, which also requires meaningful integration between cognitive, affective, and psychomotor domains. To achieve a mindset transformation, practical actions are needed that progress from being able but forced, to becoming accustomed, and eventually forming attitudes or character. This research employed a qualitative method. Data were collected through interviews, observations, and documentation. Data analysis was conducted using the Miles and Huberman framework, and the findings were presented descriptively. The results show that two aspects – mindful learning and meaningful learning – are more suitable to be given greater emphasis in the learning process to strengthen students' character education

INTRODUCTION

Education has always been understood as a multidimensional process that goes far beyond the mere transfer of cognitive knowledge. It plays a pivotal role in shaping students' intellectual abilities while simultaneously cultivating moral values, social responsibility, and cultural awareness. In the Indonesian context, this dual function of education is particularly relevant. The Indonesian National Education System Law (Undang-Undang No. 20 Tahun 2003) emphasizes that education should aim at developing learners who are not only academically proficient but also spiritually mature, emotionally balanced, and socially responsible. Within this framework, character education becomes a crucial foundation, ensuring that future generations embody not only intelligence but also noble character and ethical integrity (Santika, 2022). However, the growing complexities of modern life, globalization, and digital transformation present new challenges that demand innovative pedagogical approaches to maintain this delicate balance.

The rapid advancement of technology, especially the penetration of digital devices and social media, has significantly reshaped the behavior and lifestyles of students. Young people today are often described as "digital natives," who navigate their daily lives with constant exposure to online platforms. While this digital environment provides vast opportunities for learning and information access, it also produces unintended consequences. Students increasingly show tendencies toward superficial engagement, shorter attention spans, and limited face-to-face interaction. Their communication patterns prioritize speed and efficiency over depth and reflection, leading to a decline in empathy, tolerance, and social cohesion (Xing & Goh, 2021). In such an environment, the ideal vision of character education—fostering integrity, responsibility, cooperation, and empathy—often collides with the reality of fragmented learning experiences and moral disengagement.

This situation highlights a pressing gap between educational ideals and practice. Ideally, character education should be embedded holistically into the learning process, integrating cognitive, affective, and psychomotor domains. In reality, however, many schools continue to emphasize standardized testing, rote memorization, and short-term academic outcomes. Teachers are often pressured by curriculum demands, administrative burdens, and performance metrics that prioritize measurable academic achievements over intangible yet equally vital aspects such as empathy, ethics, and collaboration (Mousavi & Mathew, 2022). As a result, students may excel in examinations but fail to demonstrate internalized moral values or the ability to apply ethical principles in their daily lives.

Scholars have long argued that the solution lies not in abandoning academic rigor but in transforming pedagogical approaches. One promising paradigm is deep learning, which prioritizes mindful, meaningful, and joyful engagement with content. Unlike surface learning, which promotes memorization without true comprehension, deep learning encourages students to develop critical thinking, reflective awareness, and the ability to connect knowledge with real-life contexts (Ravi et al., 2017). In the context of character

education, deep learning allows students to go beyond understanding ethical concepts abstractly; they actively internalize values through experiential learning, collaborative projects, and reflective discussions. This approach ensures that moral and ethical learning does not remain theoretical but translates into tangible behaviors and attitudes.

Deep learning is increasingly recognized not just as a technological framework in machine learning and artificial intelligence but also as a pedagogical concept in education. Ravi et al. (2017) describe deep learning as a powerful model capable of identifying complex patterns across different domains, including health and education. In the classroom, this means designing learning processes that foster curiosity, self-reflection, and genuine comprehension. Deep learning incorporates three major aspects: mindful learning (awareness and reflection in learning), meaningful learning (connecting new knowledge with prior experiences and values), and joyful learning (cultivating intrinsic motivation and engagement).

In the domain of character education, these aspects are especially critical. Mindful learning encourages students to consciously reflect on their actions and moral decisions, fostering internal motivation rather than external compliance. Meaningful learning ensures that values are not taught in isolation but integrated into students' lived experiences, making them personally relevant. Joyful learning promotes enthusiasm and emotional engagement, which are essential for sustaining long-term behavioral change. Collectively, these dimensions enable students to construct ethical understanding through social interaction, empathy, and collaboration, aligning with Vygotsky's social constructivist theory that knowledge and values are formed in meaningful social contexts.

Recent research also supports the application of deep learning in education. Adriyansyah and Nugraha (2025) argue that deep learning has the potential to bridge educational inequalities by providing inclusive and adaptive approaches that respond to diverse student needs. This is particularly relevant in Indonesia, where educational access and quality vary significantly across regions. Moreover, Mousavi and Mathew (2022) emphasize that deep learning, when combined with educational data mining, allows for early identification of at-risk students, enabling teachers to intervene not only academically but also in fostering resilience and motivation. These insights demonstrate that deep learning is not merely a theoretical framework but a practical tool to strengthen both academic and character outcomes.

The urgency of implementing deep learning becomes clearer when considering the erosion of moral values among young people in the digital age. Students' increasing dependence on gadgets has been associated with reduced empathy and limited exposure to real-life social interaction. Many young people prefer online communication, which, while efficient, often lacks the depth needed to cultivate emotional intelligence and ethical awareness. As a result, character education faces the risk of being sidelined or superficially implemented.

Furthermore, in a multicultural society such as Indonesia, character education must also address issues of inclusivity, tolerance, and respect for

diversity. Education should not only shape students as national citizens but also prepare them for global citizenship, where intercultural competence and respect for pluralism are essential. Yet, in practice, intolerance, bullying, and discrimination remain prevalent challenges in schools. This reflects another gap between the ideal goal of fostering tolerance and the real behaviors observed in educational settings (Santika, 2022).

Although deep learning has been widely explored in the fields of artificial intelligence and academic achievement, its application in character education remains underexplored, particularly in the Indonesian context. Most existing studies focus on how deep learning enhances instructional effectiveness, assessment, or technological adaptation (Mousavi & Mathew, 2022; Xing & Goh, 2021). Fewer studies explicitly examine how deep learning can integrate with value-based education to foster holistic character formation, especially through mindful and meaningful approaches.

This study addresses this research gap by exploring how deep learning strategies—mindful, meaningful, and joyful learning—can be systematically applied to strengthen character education. The novelty of this research lies in linking deep learning with the holistic formation of morality, empathy, and inclusivity in a multicultural learning environment. It positions deep learning not only as a cognitive tool but also as a transformative framework that bridges the gap between theoretical ideals of character education and the practical realities of student behavior.

The primary objective of this study is to analyze the role of deep learning in fostering character education among students. Specifically, it aims to examine how mindful, meaningful, and joyful learning can be implemented in classroom practices to strengthen moral values. In addition, the study seeks to identify the dimensions of deep learning that are most relevant for character formation in students. Furthermore, it explores the integration of multicultural and technological perspectives into deep learning as a means to enhance inclusivity, tolerance, and empathy.

By addressing these objectives, this study contributes both theoretically and practically. Theoretically, it enriches the literature by offering a novel framework that combines deep learning with character education in a multicultural setting. Practically, it provides educators with insights and strategies to design learning environments that balance academic content with moral development. In doing so, this study aspires to support Indonesia's broader educational agenda of shaping future generations who are not only knowledgeable but also ethically grounded and socially responsible.

THEORITICAL REVIEW

Theoretically, this study is grounded in the constructivist learning paradigm, particularly drawing on Lev Vygotsky's social constructivism, which emphasizes that knowledge and values are constructed through social interaction and meaningful experiences. Deep learning, as a pedagogical approach, aligns with this perspective by promoting active engagement, reflection, and contextual understanding rather than passive knowledge

acquisition. In addition, the integration of cognitive, affective, and psychomotor domains reflects holistic education theory, where character formation is not only influenced by intellectual development but also by emotional and behavioral processes. The concepts of mindful, meaningful, and joyful learning further reinforce experiential learning theory as proposed by David Kolb, highlighting that learning becomes more effective when students actively experience, reflect, conceptualize, and apply knowledge in real-life contexts. Therefore, deep learning serves as a comprehensive theoretical framework that bridges cognitive development and character education, enabling students to internalize values through reflective and socially situated learning processes.

METHODOLOGY

This study employed a qualitative research design with a descriptive approach. The qualitative design was chosen because it allows the researcher to capture in-depth insights into the process of implementing deep learning in character education. Rather than focusing on numerical data, this study emphasizes the interpretation of meanings, behaviors, and experiences within the educational context.

The qualitative approach was utilized to explore how deep learning strategies – mindful, meaningful, and joyful learning – are applied in classroom settings and how they contribute to strengthening character education among students. This approach is suitable because the aim of the research is not to measure variables statistically but to interpret the dynamics of learning interactions, teacher strategies, and student responses in their natural environment.

The research subjects consisted of students and teachers from a selected junior high school in Surakarta, Indonesia. The school was purposively chosen based on its implementation of character education programs aligned with national curriculum policies. The participants included teachers, namely six classroom teachers who have been actively involved in designing and implementing learning activities that integrate character education; students, namely thirty students from Grades VII–VIII who participated in classroom activities where deep learning strategies were applied; and supporting informants, namely the vice principal for curriculum and the school counselor, who provided additional perspectives on the implementation of character education.

The research was conducted over a period of three months (March–May 2025), covering both classroom observations and extracurricular learning contexts. The instruments used in this study were developed and adapted based on qualitative research principles to ensure validity and reliability, including an interview guide, observation sheet, and documentation. Semi-structured interviews were conducted with teachers, students, and supporting informants, with questions focusing on teaching practices, student engagement, integration of mindful, meaningful, and joyful learning, and perceptions of character development. A structured observation sheet was used to record classroom activities, interaction patterns, learning strategies, and behavioral indicators of

character such as cooperation, empathy, responsibility, and tolerance. In addition, relevant school documents, including lesson plans, student work, school policies, and extracurricular program notes, were collected to provide additional contextual information.

The quality of the instruments was ensured through expert validation by two senior lecturers in education who reviewed the instruments for content validity, clarity, and alignment with research objectives. Prior to full-scale data collection, a pilot observation and interview were conducted to refine the instruments.

The data collection process followed three stages: pre-fieldwork preparation, fieldwork, and post-fieldwork. Pre-fieldwork preparation included gaining official permission from the school, selecting participants, and refining instruments. The fieldwork stage involved conducting classroom observations at least twice a week during the research period; carrying out in-depth interviews with teachers (6), students (12 selected through purposive sampling for diversity), and supporting informants (2); and collecting documents such as school character education guidelines, lesson plans, and student reports. The post-fieldwork stage consisted of transcribing interviews verbatim, organizing field notes, and preparing data for analysis.

Ethical considerations were also addressed. Participants were informed about the purpose of the research, and their consent was obtained. Anonymity and confidentiality were assured by using pseudonyms in reporting.

The data were analyzed using the Miles and Huberman interactive model, which involves three main steps: data reduction, data display, and conclusion drawing and verification. Data reduction refers to selecting, focusing, simplifying, and organizing raw data into meaningful units related to the research questions. Data display involves presenting data in narrative form, supported by matrices and thematic charts to visualize connections between categories. Conclusion drawing and verification include interpreting patterns, comparing findings across data sources, and verifying emerging themes through triangulation.

Triangulation was conducted by combining data from interviews, observations, and documentation to ensure the credibility and trustworthiness of findings. Researcher reflexivity was maintained throughout the process by keeping an analytical journal to minimize bias. To ensure the quality of the research findings, four criteria of trustworthiness were applied, namely credibility, transferability, dependability, and confirmability. Credibility was achieved through triangulation of sources and methods; transferability was ensured by providing a detailed description of the research context and participants; dependability was secured by maintaining a clear audit trail of research decisions and procedures; and confirmability was enhanced by documenting the researcher's reflective notes and cross-checking interpretations with participants.

REASERCH RESULT

The study revealed that implementing deep learning strategies in character education created learning experiences that were not only cognitive but also deeply emotional and social. From the interviews, classroom observations, and school documentation, three major themes emerged that aligned with the dimensions of mindful learning, meaningful learning, and joyful learning. These themes illustrate how teachers integrated character values into their teaching practices and how students responded and made sense of these experiences.

Mindful Learning: Awareness and Reflection

One of the most striking findings was the way mindful learning encouraged students to become aware of moral values underlying the lesson content. Teachers consistently used reflection sessions at the end of classes, asking students to pause, think critically, and connect the lesson with their daily lives. For example, in a social studies class discussing cooperation across communities in history, the teacher invited students to relate the discussion to current issues of tolerance and diversity.

One student reflected: "I realized that cooperation in the past was not only about politics or power, but also about respecting differences. I think I should also learn to respect my classmates who are different from me." (Interview with Student A, April 2025)

This response highlights how simple reflection activities could generate profound moral awareness. Observation notes also showed that students began to use more respectful language during group discussions, such as allowing quieter peers to share their opinions. This suggests that mindful learning translated beyond cognitive awareness into observable behavioral change.

Meaningful Learning: Connecting Knowledge and Experience

Teachers also made deliberate efforts to create meaningful learning experiences through project-based learning and group discussions. Instead of merely teaching about honesty or responsibility in theory, teachers designed activities where students developed a campaign on environmental awareness. This project required them to collaborate, assign roles, manage conflicts, and present their results to the class.

During the project, the researcher noted how students negotiated group conflicts such as unequal task distribution or disagreements about campaign strategies. Remarkably, students themselves corrected dishonest behavior when one member attempted to claim credit without contributing. A student asserted: "If we are working on a campaign about honesty, then we also have to be honest in our group. If someone doesn't work, their name shouldn't be included." (Field Notes, April 2025).

This moment illustrated how meaningful activities could push students to practice values in real situations rather than just talk about them. As one teacher observed: “If students only listen to explanations, they forget quickly. But if they experience it themselves – especially when they face conflicts values like honesty and responsibility become very real.” (Interview with Teacher B, April 2025)

Joyful Learning: Emotional Engagement and Motivation

The emotional dimension of learning was also evident. Teachers often used storytelling, interactive games, and role-playing to spark excitement in moral lessons. For instance, in one observed session, a teacher narrated the story of a cultural hero known for bravery and honesty. Students were visibly engaged, eager to share their own experiences of being truthful even when it was difficult. However, the findings revealed that joyful learning on its own was not enough to build character. Without reflective discussion and real-life application, the impact tended to be temporary. As one teacher explained: “Students love the games and stories, but if we don’t connect them with their real lives, the impact is just entertainment.” (Interview with Teacher C, April 2025).

Thus, joyful learning functioned more effectively as an entry point to engage students emotionally, but its long-term influence depended on reinforcement through mindful and meaningful learning.

Multicultural Awareness and Inclusivity

An unexpected yet significant finding was the way deep learning activities fostered multicultural awareness among students. In group projects, students did not only practice honesty or responsibility, but they also demonstrated inclusivity toward peers from different religious or cultural backgrounds. In one discussion, a student remarked: “If we talk about respect, it also means we should respect how our friends pray or dress. That is also part of being honest in our hearts.” (Interview with Student B, April 2025).

Observation notes confirmed that students increasingly used inclusive and empathetic language, suggesting that deep learning provided a pathway for cultivating tolerance and respect for diversity. School documents further supported this finding, as lesson plans explicitly incorporated multicultural themes as part of character education.

DISCUSSION

The findings suggest that deep learning strategies have strong potential to strengthen character education by bridging the gap between educational ideals and classroom realities. Both teachers and students demonstrated that mindful reflection, meaningful projects, and joyful engagement could transform abstract values into lived experiences.

Mindful learning proved to be a critical foundation for character formation. Structured reflection enabled students to articulate fairness, respect,

and empathy, echoing Shin et al. (2022), who highlighted the role of reflective practices in developing ethical decision-making. In this study, students' reflections revealed an internalization of values rather than mere external compliance, showing that pauses for awareness are essential in character education.

The integration of meaningful learning provided opportunities for students to apply values in authentic contexts. This aligns with Wardhaugh and Fuller (2023), who argue that values are more deeply retained when linked to personal and social experiences. The group projects and debates observed in this study revealed how values like honesty and responsibility were enacted in real conflicts, making them more sustainable than lecture-based lessons.

While joyful learning played a vital role in attracting interest, it also showed its limitations. Consistent with Couper and Watkins (2016), the findings suggest that enjoyment alone does not guarantee value internalization. Instead, joyful methods should serve as complementary tools that foster initial engagement, which must then be deepened through mindful and meaningful strategies.

The emergent theme of multicultural awareness expands the scope of character education. Lindahl and Watkins (2015) argue that 21st-century education must prepare students as global citizens who embrace diversity. The findings of this study illustrate how students began to embody inclusivity in daily classroom interactions, suggesting that deep learning can effectively integrate intercultural competence into character education.

These findings underscore the need for teacher training in deep learning pedagogy. Teachers' ability to facilitate reflection, design meaningful projects, and nurture inclusive environments directly affects the success of character education. Future research may explore how digital tools can support deep learning in character education, particularly in fostering collaboration and reflection across cultural contexts (Michaleva & Regnier, 2014). Longitudinal studies are also needed to evaluate the sustainability of character changes instilled through deep learning over time.

CONCLUSION AND RECOMMENDATION

The purpose of this study was to explore how deep learning through its three interrelated dimensions of mindful, meaningful, and joyful learning can contribute to strengthening character education.

At the outset, the Introduction emphasized a significant gap between the ideal goal of Indonesian education, which aspires to develop morally upright and socially responsible citizens, and the everyday realities of classrooms, where cognitive achievement often overshadows the cultivation of ethical values.

The findings and discussions presented in this article provide evidence that deep learning is not only a theoretical framework but also a practical and transformative strategy to bridge this gap.

The substantial meaning derived from this research lies in the realization that character education cannot be separated from how learning is designed and experienced. Mindful learning encourages students to reflect on their attitudes, creating a moral awareness that transcends compliance with rules. Meaningful learning connects values to personal and collective experiences, ensuring that character is not taught as abstract ideals but lived as social practices. Joyful learning, while not sufficient on its own, becomes a powerful entry point for engagement and motivation when paired with reflection and application. Together, these three dimensions provide a holistic framework that enables education to move beyond cognitive transmission toward the shaping of attitudes, behaviors, and values.

This synthesis confirms what was anticipated in the Introduction: that innovative pedagogical models are required to address the erosion of empathy, the dominance of superficial learning behaviors, and the growing pressures of digital culture. By demonstrating how students reflected, negotiated conflicts, and embraced diversity, this research shows that deep learning can provide the tools to revitalize character education in both local and global contexts.

In alignment with the aims stated in the Introduction, this study not only revealed how deep learning strategies work in practice but also clarified which aspects are most effective for character formation. The emphasis on mindful and meaningful learning was found to be more impactful in shaping sustainable behaviors, while joyful learning served as a necessary complement to foster engagement. This compatibility between aims and results affirms that character education is strengthened not by adding more content, but by transforming the way content is taught, reflected upon, and lived.

The emergent theme of multicultural awareness enriches the research further by highlighting that character education cannot be limited to individual moral virtues but must also prepare students for life in a diverse, interconnected society. By learning to accept differences and practice inclusivity, students embody values that are essential not only for national identity but also for global citizenship. This finding adds a broader dimension to the study, showing that deep learning is relevant not only for personal character formation but also for fostering intercultural competence.

The findings of this study open several prospects for future development. First, there is a clear need to expand teacher training programs that equip educators with the skills to implement deep learning approaches in character education. Without adequate teacher preparation, the potential of mindful reflection, meaningful projects, and joyful engagement may remain underutilized.

Second, the integration of technology into deep learning offers exciting opportunities. Digital platforms can be designed not only to deliver academic content but also to facilitate reflective journals, cross-cultural collaborations, and project-based learning that extends beyond the classroom. In this way, deep

learning can evolve alongside the digital habits of students, turning potential distractions into meaningful educational experiences.

Third, future research could adopt longitudinal designs to track the long-term impact of deep learning strategies on students' character development. While this study has shown immediate behavioral and attitudinal changes, it is important to understand whether these transformations are sustained as students grow and encounter more complex social challenges. Such research would contribute significantly to policy and curriculum design in character education.

Finally, the multicultural dimension uncovered in this study suggests a fertile ground for comparative research across different cultural and educational contexts. Investigating how deep learning operates in diverse settings can enrich our understanding of its universal potential as well as its cultural specificities. This could further position deep learning as a global framework for character education that respects and incorporates local values while preparing students for a pluralistic world.

In conclusion, this study substantiates the argument that deep learning is not merely a pedagogical technique but a moral and social imperative for contemporary education. By fostering reflection, meaningful engagement, and joyful participation, deep learning enables students to embody values that prepare them for the complexities of modern life. It addresses the discrepancy between ideal educational aspirations and current realities, offering a pathway toward a more holistic, inclusive, and human-centered model of learning.

The ultimate value of this research lies not only in what has been demonstrated within one educational setting but in the broader implications for reimagining education in the 21st century. As societies grapple with challenges of intolerance, ethical erosion, and digital superficiality, deep learning provides a framework to nurture individuals who are not only intellectually competent but also ethically grounded and socially responsible. Future work must continue to refine, adapt, and expand this approach so that character education fulfills its vital role in shaping generations that carry forward wisdom, empathy, and resilience.

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