

THE EFFECT OF DEEP LEARNING ON STUDENTS' INDEPENDENT LEARNING AND RELIGIOUS ATTITUDES TOWARD ISLAM IN ISLAMIC EDUCATION CLASSES AT SDN 124 PALEMBANG

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Abstract

This study is motivated by the low level of students' learning independence and religious attitudes in Islamic Education learning, which is still dominated by conventional methods and has not encouraged deep understanding. This study aims to analyze the effect of deep learning on students' learning independence and religious attitudes in sixth-grade students at SDN 124 Palembang. This research employed a quantitative approach with a quasi-experimental design. The research sample consisted of sixth-grade students divided into experimental and control classes. Data collection techniques were conducted through learning independence and religious attitude questionnaires that had been tested for validity and reliability. Data analysis used inferential statistical tests including normality tests, homogeneity tests, t-tests, and F-tests. The results showed that: (1) deep learning had a significant effect on students' learning independence; (2) deep learning had a significant effect on students' religious attitudes; and (3) deep learning simultaneously had a positive effect on learning independence and religious attitudes. Therefore, the deep learning approach is effectively implemented in Islamic Education learning to improve the quality of student learning in elementary schools.

Keywords: Deep Learning, Learning Independence, Religious Attitudes, Islamic Education

Abstrak

Penelitian ini dilatarbelakangi oleh rendahnya kemandirian belajar dan sikap religius siswa dalam pembelajaran Pendidikan Agama Islam (PAI) yang masih didominasi metode konvensional serta belum mendorong pemahaman yang mendalam. Penelitian ini bertujuan untuk menganalisis pengaruh pembelajaran mendalam (deep learning) terhadap kemandirian belajar dan sikap religius siswa kelas VI di SDN 124 Palembang. Penelitian ini menggunakan pendekatan kuantitatif dengan desain eksperimen semu (quasi experiment). Sampel penelitian terdiri dari siswa kelas VI SDN 124 Palembang yang dibagi menjadi kelas eksperimen dan kelas kontrol. Teknik pengumpulan data dilakukan melalui angket kemandirian belajar dan sikap religius yang telah diuji validitas dan reliabilitasnya. Analisis data menggunakan uji statistik inferensial melalui uji normalitas, homogenitas, uji t, dan uji F. Hasil penelitian menunjukkan bahwa: (1) pembelajaran mendalam (deep learning) berpengaruh signifikan terhadap kemandirian belajar siswa; (2) pembelajaran mendalam (deep learning) berpengaruh signifikan

terhadap sikap religius siswa; dan (3) pembelajaran mendalam secara simultan berpengaruh positif terhadap kemandirian belajar dan sikap religius siswa. Dengan demikian, pendekatan deep learning efektif diterapkan dalam pembelajaran PAI untuk meningkatkan kualitas pembelajaran siswa di sekolah dasar.

Kata kunci: *Deep Learning, Kemandirian Belajar, Sikap Religius, Pendidikan Agama Islam*

INTRODUCTION

Education in the 21st century has experienced significant transformation along with the rapid development of science, technology, globalization, and social dynamics. The educational paradigm is no longer solely oriented toward the transfer of knowledge from teachers to students, but rather toward developing students' competencies comprehensively, including cognitive, affective, psychomotor, social, and spiritual dimensions. Modern education demands the development of students' critical thinking, creativity, communication, and collaboration skills, commonly known as the 4C competencies, which are considered essential for facing the challenges of the global era (Trilling & Fadel, 2009). In this context, students are expected not only to master academic content but also to become lifelong learners who possess the ability to adapt, solve problems, and make responsible decisions in social life. Consequently, educational institutions are required to create meaningful learning environments that encourage students' active participation and independence in the learning process.

The transformation of educational orientation also affects the implementation of Islamic Religious Education (Pendidikan Agama Islam/PAI) in schools. Islamic Religious Education does not merely aim to provide students with theoretical religious knowledge but also seeks to develop students' spiritual awareness, moral values, and religious character. PAI is expected to shape students into individuals who understand, internalize, and practice Islamic teachings in their daily lives. According to Al-Attas (1991), Islamic education fundamentally aims to produce individuals who are balanced intellectually, spiritually, emotionally, and morally. Therefore, PAI learning should not only focus on cognitive mastery of religious concepts but also facilitate the formation of students' attitudes, behaviors, and values in accordance with Islamic teachings.

However, the implementation of Islamic Religious Education in many schools still faces various challenges. In practice, learning activities are often dominated by conventional teacher-centered methods where teachers become the primary source of information while students passively receive knowledge. Such learning conditions tend to emphasize memorization rather than deep understanding, reflection, and application of religious values in real-life situations. Freire (1970) criticized this type of educational practice as the "banking model of education," in which students are treated merely as recipients of information rather than active participants in constructing knowledge. In the context of PAI instruction, this approach limits students' opportunities to explore religious meanings critically and contextually.

The dominance of conventional learning methods in Islamic Religious Education has implications for students' learning autonomy and religious attitudes. Many students demonstrate low levels of initiative in learning activities, depend heavily on teachers' explanations, and show limited motivation to independently explore religious materials. Learning autonomy refers to students' ability to regulate, direct, and evaluate their own learning processes independently (Zimmerman, 2002). Autonomous learners possess self-awareness, self-discipline, and intrinsic motivation that enable them to actively seek knowledge and solve learning problems. However, when learning is dominated by teacher-centered instruction, students often become passive learners who rely solely on external guidance.

In addition to affecting learning autonomy, traditional learning approaches also influence students' religious attitudes. Religious attitude refers to the internalization of religious values that manifest in students' beliefs, behaviors, ethics, and social interactions (Glock & Stark, 1965). Ideally, Islamic Religious Education should encourage students to develop sincerity in worship, empathy toward others, honesty, discipline, tolerance, and responsibility. Nevertheless, many students still exhibit religious understanding that remains superficial and theoretical. Religious practices are often performed merely as obligations without deep comprehension of their moral and spiritual significance. This phenomenon indicates that students have not fully internalized Islamic values into their daily behavior and social interactions.

One major factor contributing to these issues is the prevalence of surface learning in classroom instruction. Surface learning emphasizes rote memorization and short-term academic achievement without encouraging students to understand concepts deeply or critically (Biggs & Tang, 2011). Students who engage in surface learning generally focus only on completing assignments and passing examinations rather than constructing meaningful understanding. In Islamic Religious Education, surface learning may result in students memorizing Qur'anic verses, hadiths, or religious doctrines without comprehending their broader ethical and contextual implications. Consequently, religious learning becomes disconnected from students' real-life experiences and moral development.

To address these challenges, educators need to adopt learning approaches that promote meaningful understanding, reflection, and active engagement. One educational approach that is increasingly considered relevant in contemporary education is deep learning. Deep learning is an approach that encourages students to actively engage with learning materials through critical thinking, analysis, reflection, and contextual application (Marton & Säljö, 1976). Unlike surface learning, deep learning focuses on understanding the underlying meaning of concepts and connecting new knowledge with prior experiences. Through deep learning, students are encouraged to become active participants in the learning process rather than passive recipients of information.

The concept of deep learning aligns closely with constructivist learning theory, which emphasizes that knowledge is actively constructed by learners through interaction with their environment (Piaget, 1972; Vygotsky, 1978). Constructivist approaches encourage students to explore ideas, ask questions, solve problems, and engage in collaborative learning experiences. In Islamic Religious Education, deep learning enables students to critically examine religious teachings, reflect on moral issues, and apply Islamic values in everyday life. This approach transforms religious education from merely transmitting doctrinal information into facilitating spiritual and moral growth.

The implementation of deep learning in Islamic Religious Education can create more meaningful learning experiences for students. Teachers can design contextual learning activities that connect religious concepts with students' social realities, personal experiences, and contemporary issues. For example, discussions about honesty can be linked to students' daily interactions at school and home, while lessons on social responsibility can be connected to environmental awareness and community service activities. Such contextualization helps students understand the relevance of Islamic teachings in their everyday lives and fosters stronger emotional engagement with the learning material.

Furthermore, deep learning encourages reflective thinking, which is essential for the development of religious attitudes. Reflective learning enables students to evaluate their own beliefs, actions, and values critically (Dewey, 1933). Through reflection, students can develop deeper spiritual awareness and moral consciousness. Reflective activities such as journaling, group discussions, problem-solving tasks, and self-assessment can help students internalize religious values more effectively. In this sense, deep learning supports not only cognitive development but also affective and spiritual growth.

Research findings indicate that innovative and student-centered learning approaches contribute positively to students' motivation, engagement, and learning autonomy. According to Deci and Ryan (2000), learning environments that support autonomy enhance students' intrinsic motivation and psychological well-being. When students are given opportunities to participate actively in learning processes, make decisions, and express their opinions, they become more responsible and independent learners. In Islamic Religious Education, autonomous learning can encourage students to independently seek religious knowledge, reflect on moral issues, and practice Islamic values voluntarily rather than merely fulfilling external demands.

Several studies have also demonstrated the positive impact of deep learning on students' conceptual understanding and academic achievement. Entwistle and Ramsden (1983) explain that students who adopt deep learning approaches tend to achieve better long-term understanding because they actively seek meaning and integrate knowledge systematically. In religious education contexts, deep learning enables students to understand Islamic teachings holistically rather than fragmentarily. Students become

capable of connecting religious concepts with ethical decision-making, social relationships, and personal identity formation.

In addition to cognitive benefits, deep learning also contributes to character education. Character education has become a major concern in contemporary educational discourse because schools are expected not only to produce academically competent students but also morally responsible citizens (Lickona, 1991). Islamic Religious Education plays a central role in character formation because Islamic teachings emphasize moral virtues such as honesty, compassion, discipline, justice, and social responsibility. Through deep learning, students are encouraged to internalize these values meaningfully and apply them consistently in their daily behavior.

The integration of deep learning into Islamic Religious Education is particularly relevant in elementary schools because childhood is a critical stage for character formation and habit development. At the elementary level, students are still developing their moral reasoning, self-regulation, and social awareness. Effective learning experiences during this stage can significantly influence students' long-term attitudes and behaviors. Therefore, teachers need to create learning environments that nurture curiosity, reflection, empathy, and responsibility. Deep learning provides opportunities for students to engage emotionally and intellectually with religious values, thereby strengthening the process of character internalization.

However, implementing deep learning in schools also presents several challenges. Teachers may encounter difficulties in designing student-centered learning activities due to limited training, time constraints, and curriculum demands. Many teachers are still accustomed to conventional teaching methods and may lack sufficient understanding of deep learning principles. Additionally, assessment systems that focus heavily on standardized testing often encourage surface learning rather than conceptual understanding. Consequently, educational reforms are needed to support the implementation of innovative learning approaches in schools.

School support and leadership are also important factors in promoting meaningful learning practices. Educational institutions need to provide teachers with professional development opportunities, collaborative learning communities, and adequate learning resources. According to Fullan (2007), sustainable educational change requires support from school leadership, organizational culture, and policy frameworks. In the context of Islamic Religious Education, schools should encourage integrative learning practices that combine academic achievement with moral and spiritual development.

Another important aspect of deep learning is collaborative learning. Collaborative learning allows students to interact, exchange ideas, and solve problems together (Johnson & Johnson, 2009). Through collaborative activities, students develop communication skills, empathy, and respect for diverse perspectives. In Islamic education, collaborative learning reflects the Islamic principles of *ukhuwah* (brotherhood), mutual assistance, and collective responsibility. Group discussions,

project-based learning, and cooperative tasks can help students build social relationships while deepening their understanding of religious concepts.

Technology integration can also support the implementation of deep learning in Islamic Religious Education. Digital learning resources, interactive media, and online discussion platforms provide opportunities for students to access information independently and engage in meaningful learning experiences. However, technology should be used not merely for information delivery but as a tool to facilitate critical thinking, creativity, and reflection. Teachers need to guide students in using digital technology ethically and responsibly in accordance with Islamic values.

Moreover, the relationship between learning autonomy and religious attitudes deserves further attention. Autonomous learners tend to develop stronger self-regulation and moral responsibility because they actively engage in self-reflection and decision-making processes. In Islamic teachings, self-awareness and personal responsibility are fundamental principles of moral conduct. Therefore, fostering learning autonomy through deep learning may simultaneously strengthen students' religious attitudes and ethical behavior. Students who learn independently are more likely to internalize religious values sincerely because their learning is driven by intrinsic motivation rather than external pressure.

Empirical evidence also supports the relationship between meaningful learning and character formation. Studies indicate that experiential and reflective learning approaches contribute positively to students' moral reasoning, empathy, and prosocial behavior (Nucci & Narvaez, 2008). In Islamic Religious Education, meaningful learning experiences can encourage students to apply Islamic values in social interactions, environmental responsibility, and personal conduct. As a result, religious education becomes more transformative and relevant to students' real-life experiences.

The context of SDN 124 Palembang provides an important setting for examining the implementation of deep learning in Islamic Religious Education. Like many elementary schools in Indonesia, SDN 124 Palembang faces challenges related to students' learning motivation, autonomy, and character development. The implementation of innovative learning approaches is necessary to improve educational quality and student outcomes. By investigating the influence of deep learning on students' learning autonomy and religious attitudes, this study seeks to contribute to the development of more effective instructional practices in elementary Islamic education.

This study is also significant because research on deep learning in the context of Islamic Religious Education at the elementary school level remains relatively limited. Most previous studies focus primarily on cognitive achievement and academic performance, while fewer studies explore the relationship between deep learning, learning autonomy, and religious attitudes simultaneously. Therefore, this research aims to fill this gap by examining how deep learning influences both students' independent learning behavior and their internalization of religious values.

In conclusion, the demands of 21st-century education require educational institutions to move beyond traditional teacher-centered approaches toward more meaningful, student-centered learning practices. Islamic Religious Education must not only transmit religious knowledge but also foster students' spiritual awareness, character development, and learning autonomy. The dominance of conventional instructional methods has contributed to passive learning behavior and superficial religious understanding among students. Deep learning offers a promising approach for addressing these challenges because it emphasizes critical thinking, reflection, contextual understanding, and active engagement. Through deep learning, students can develop deeper conceptual understanding, stronger learning autonomy, and more meaningful religious attitudes. Therefore, this study seeks to analyze the influence of deep learning on the learning autonomy and religious attitudes of sixth-grade students at SDN 124 Palembang.

METHOD

This study employed a quantitative approach using a quasi-experimental design. The research design utilized was a pre-test post-test nonequivalent group design. The study was conducted at SDN 124 Palembang with sixth-grade students. The study population consisted of all sixth-grade students at SDN 124 Palembang. The research sample was divided into two groups: the experimental class, which was treated using the deep learning approach, and the control class, which used conventional learning methods. Data collection techniques used a self-directed learning questionnaire and a student religious attitude questionnaire. The research instruments were tested for validity and reliability before being used in the study. The validity test was conducted using the product-moment correlation, while the reliability test used Cronbach's Alpha. Data analysis was performed using inferential statistics. Prior to hypothesis testing, prerequisite analysis tests were conducted, including tests for normality, homogeneity, and multicollinearity. Subsequently, hypothesis testing was performed using a t-test to determine the partial effect and an F-test to determine the simultaneous effect of deep learning on students' learning autonomy and religious attitudes.

RESULTS AND DISCUSSION

The findings of this study indicate that the implementation of deep learning has a positive and significant effect on students' learning autonomy and religious attitudes among sixth-grade students at SDN 124 Palembang. Based on the statistical analysis using the t-test, the significance value obtained was less than 0.05, indicating that the proposed hypothesis was accepted. This finding demonstrates that the application of deep learning contributes meaningfully to the improvement of students' ability to manage their learning activities independently. The implementation of deep learning encourages students to become more active participants in the learning process rather than passive recipients of information. Through meaningful learning experiences, students develop greater initiative, responsibility, and engagement in classroom activities. This result confirms that deep learning can function as an effective instructional approach for fostering students' independent learning behaviors in Islamic Religious Education (PAI).

The increase in learning autonomy observed in this study can be identified through several indicators. Students in the experimental class demonstrated stronger initiative in completing assignments, greater confidence in expressing ideas during discussions, and improved responsibility in managing their learning activities. Furthermore, students became more actively involved in seeking additional information, solving problems collaboratively, and reflecting on their learning experiences. Compared to students in the control class who received conventional instruction, students exposed to deep learning exhibited significantly higher participation and engagement during classroom interactions. These findings indicate that deep learning creates a learning environment that empowers students to take ownership of their educational experiences.

The findings of this study align closely with Zimmerman's (2002) theory of self-regulated learning, which emphasizes that learning autonomy develops when students actively participate in planning, monitoring, and evaluating their own learning processes. According to Zimmerman, autonomous learners are characterized by their ability to set learning goals, apply learning strategies, maintain motivation, and conduct self-evaluation. Deep learning facilitates these processes by encouraging students to explore concepts critically, analyze information independently, and connect learning materials to real-life situations. In this study, students who participated in deep learning activities demonstrated greater self-confidence and independence because they were given opportunities to make decisions, express opinions, and engage in reflective thinking during the learning process.

The implementation of deep learning also supports constructivist learning theory, which views learners as active constructors of knowledge rather than passive recipients of information (Piaget, 1972; Vygotsky, 1978). Constructivist approaches emphasize that meaningful learning occurs when students actively engage with concepts, experiences, and social interactions. In the context of Islamic Religious Education, deep learning enables students to understand religious concepts not merely through memorization but through critical reflection and contextual application. Students become capable of constructing personal understanding regarding religious teachings and their relevance to everyday life. Consequently, learning becomes more meaningful and sustainable because knowledge is integrated into students' cognitive and affective structures.

The significant effect of deep learning on learning autonomy can also be explained through the characteristics of the learning process itself. Deep learning emphasizes active participation, collaborative learning, problem-solving, and reflective thinking (Biggs & Tang, 2011). These elements encourage students to engage intellectually and emotionally with the learning material. Students are not only required to understand theoretical concepts but are also encouraged to apply them in practical situations. Such learning experiences stimulate curiosity and intrinsic motivation, which are important foundations of autonomous learning. According to Deci and Ryan (2000), intrinsic motivation develops when individuals experience autonomy, competence, and relatedness within the learning environment. The deep learning approach fulfills these psychological needs by

providing students with opportunities to make decisions, demonstrate competence, and collaborate with peers.

Furthermore, the results of this study indicate that deep learning has a positive and significant effect on students' religious attitudes. Based on the statistical test results, the significance value obtained was also less than 0.05, indicating that deep learning contributes significantly to the enhancement of students' understanding and internalization of religious values. Students in the experimental class demonstrated improvements in several dimensions of religious attitudes, including faith, worship practices, spiritual awareness, religious knowledge, and the application of Islamic values in daily life. Students became more active in participating in religious activities, showed greater discipline in worship practices, and demonstrated increased tolerance, empathy, and social responsibility.

The improvement in students' religious attitudes suggests that deep learning facilitates the internalization of religious values more effectively than conventional instructional approaches. Traditional teacher-centered learning often focuses primarily on the memorization of religious concepts without encouraging students to understand the deeper meaning and practical relevance of those teachings. As a result, students may possess theoretical religious knowledge without being able to apply it consistently in daily behavior. In contrast, deep learning emphasizes contextual understanding and reflective thinking, enabling students to connect religious concepts with real-life experiences and moral challenges. This process strengthens students' emotional and spiritual engagement with religious teachings.

The findings of this study support the view that meaningful learning experiences are essential for character and moral development. According to Lickona (1991), effective character education requires not only moral knowledge but also moral feeling and moral action. Students need opportunities to reflect on ethical values, discuss moral dilemmas, and practice positive behaviors within authentic social contexts. Deep learning creates such opportunities by encouraging students to analyze, discuss, and apply Islamic teachings critically and reflectively. Through collaborative discussions and contextual learning activities, students become more aware of the moral implications of their actions and develop stronger commitment to religious values.

The development of students' religious attitudes in this study can also be explained through reflective learning theory. Dewey (1933) argued that reflective thinking enables individuals to examine experiences critically and derive meaningful understanding from them. In Islamic Religious Education, reflection plays a crucial role in helping students internalize spiritual values and evaluate their personal behaviors. Deep learning activities such as group discussions, problem-solving tasks, self-assessment, and contextual analysis encourage students to engage in reflective thinking regarding religious concepts and moral issues. Through reflection, students become more conscious of the relationship between religious teachings and their everyday conduct.

Another important finding of this study is that students became more active in religious practices and demonstrated stronger social attitudes after participating in deep learning activities. This suggests that deep learning not only improves cognitive understanding but also influences affective and behavioral dimensions of learning. Students showed increased willingness to participate in worship activities, cooperate with peers, and demonstrate respectful behavior toward teachers and classmates. Such outcomes indicate that deep learning supports holistic education by integrating intellectual, emotional, social, and spiritual development.

The findings of this study are consistent with previous research demonstrating the positive effects of innovative learning approaches on student engagement, motivation, and character development. Research conducted by Entwistle and Ramsden (1983) found that students who engage in deep learning tend to achieve more meaningful understanding because they actively seek relationships between concepts and apply knowledge contextually. Similarly, Marton and Säljö (1976) emphasized that deep learning encourages students to focus on meaning and understanding rather than rote memorization. In the context of religious education, meaningful understanding is essential because religious values must be internalized and practiced rather than merely remembered cognitively.

The simultaneous test using the F-test further revealed that deep learning collectively influences students' learning autonomy and religious attitudes. This finding indicates that the implementation of deep learning has a comprehensive impact on students' academic and character development. Deep learning not only enhances students' ability to learn independently but also contributes to the formation of positive religious character. This holistic effect is particularly important in Islamic Religious Education because the primary objective of PAI is not solely cognitive achievement but also the cultivation of moral and spiritual values.

The simultaneous influence of deep learning on learning autonomy and religious attitudes reflects the interconnected nature of cognitive, affective, and behavioral development. Students who become more autonomous learners tend to demonstrate greater responsibility, self-awareness, and self-discipline. These characteristics are closely related to the development of positive religious attitudes because Islamic teachings emphasize personal responsibility, self-control, sincerity, and moral accountability. Consequently, when students develop independent learning skills through deep learning, they also become more capable of internalizing and practicing religious values consistently.

The findings of this study also support self-determination theory proposed by Deci and Ryan (2000), which emphasizes that autonomous learning environments promote intrinsic motivation and psychological growth. Deep learning creates conditions in which students experience autonomy, competence, and social interaction, thereby enhancing both academic engagement and personal development. In Islamic Religious Education,

intrinsically motivated students are more likely to practice religious values sincerely because their behaviors are driven by internal understanding and personal conviction rather than external pressure or obligation.

Another significant aspect of deep learning identified in this study is the role of teachers as facilitators rather than sole knowledge transmitters. In conventional classrooms, teachers often dominate the learning process, while students passively receive information. However, in deep learning environments, teachers guide students to explore concepts independently, ask critical questions, and engage in collaborative inquiry. This shift in instructional roles creates more interactive and student-centered learning experiences. According to Freire (1970), dialogical learning environments empower students to become active participants in knowledge construction and social transformation. In the context of Islamic Religious Education, teachers who act as facilitators can help students discover the meaning of religious teachings personally and contextually.

The implementation of deep learning also encourages collaborative learning among students. Collaborative learning activities allow students to exchange ideas, discuss perspectives, and solve problems together (Johnson & Johnson, 2009). Such interactions contribute to the development of communication skills, empathy, tolerance, and social responsibility. In this study, students became more willing to cooperate with peers and participate actively in group discussions. These collaborative experiences reinforce Islamic values related to brotherhood, mutual respect, and collective responsibility.

Furthermore, deep learning supports the development of critical and reflective thinking skills. Critical thinking enables students to analyze information logically, evaluate arguments, and make reasoned judgments. Reflective thinking encourages students to examine their experiences and behaviors critically. These skills are essential in Islamic Religious Education because students need to understand not only what religious teachings state but also why those teachings are important and how they should be applied in daily life. Deep learning activities that involve problem-solving, contextual analysis, and reflective discussions help students develop deeper religious understanding and stronger moral reasoning.

The findings of this study are also relevant to the broader goals of 21st-century education, which emphasize the development of higher-order thinking skills, character education, and lifelong learning competencies. Modern educational systems increasingly recognize that students need not only academic knowledge but also adaptability, creativity, collaboration, and ethical awareness (Trilling & Fadel, 2009). Deep learning aligns with these educational goals because it promotes meaningful understanding, independent learning, and personal growth. In Islamic Religious Education, deep learning contributes to the development of spiritually aware and morally responsible individuals who are capable of applying religious values in contemporary social contexts.

The success of deep learning implementation in this study also highlights the importance of creating supportive classroom environments. Learning environments that encourage participation, respect, collaboration, and reflection contribute significantly to students' motivation and engagement. Teachers need to design learning activities that are interactive, contextual, and relevant to students' experiences. In addition, schools should provide adequate support for innovative instructional practices through professional development, curriculum flexibility, and learning resources.

Despite the positive findings of this study, several challenges related to deep learning implementation should also be considered. Teachers may require additional training to effectively design and facilitate deep learning activities. Many educators are still accustomed to traditional instructional methods and may face difficulties transitioning toward student-centered approaches. Furthermore, curriculum demands and time limitations can constrain the implementation of reflective and inquiry-based learning activities. Therefore, educational policymakers and school leaders should provide support systems that encourage innovation and pedagogical transformation.

This study also has important implications for Islamic Religious Education in elementary schools. The findings suggest that deep learning can serve as an effective alternative instructional strategy for improving both academic and character outcomes. Through deep learning, students become more autonomous learners who actively engage with religious concepts and internalize Islamic values meaningfully. Consequently, Islamic Religious Education can move beyond rote memorization toward transformative learning experiences that shape students' intellectual, moral, and spiritual development.

In conclusion, the findings of this study demonstrate that deep learning has a significant positive effect on students' learning autonomy and religious attitudes among sixth-grade students at SDN 124 Palembang. Deep learning encourages students to become active participants in the learning process, enhances their self-regulated learning skills, and strengthens their understanding and internalization of religious values. The simultaneous influence of deep learning on learning autonomy and religious attitudes indicates that this approach contributes holistically to students' academic and character development. Through meaningful, reflective, and contextual learning experiences, students become more independent, responsible, and spiritually aware individuals. Therefore, deep learning can be recommended as an effective instructional approach for Islamic Religious Education in elementary schools.

CONCLUSION

Based on the research findings, it can be concluded that deep learning has a significant effect on the learning independence of sixth-grade students at SDN 124 Palembang. In addition, deep learning also has a significant effect on students' religious attitudes. Simultaneously, the deep learning approach has a positive effect on students' learning independence and religious attitudes. The deep learning approach has proven effective in creating active, meaningful, and contextual learning. Therefore, the implementation of

deep learning is recommended in Islamic Religious Education to improve the quality of learning and character development of students in elementary school.

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