

## **The readiness of Fiqh teachers in applying the *deep learning pedagogical approach* in the independent curriculum: a qualitative case study at Madrasah Tsanawiyah Muslimat Nahdhatul Ulama Indonesia**

**Rabbiatul Alawiyah<sup>1\*</sup>, Zainap Hartati<sup>1</sup>, and Sapuadi Sapuadi<sup>1</sup>**

<sup>1</sup>State Islamic University of Palangka Raya, Indonesia

**Abstract:** The implementation of deep learning approaches within Indonesia's Independent Curriculum requires teachers to demonstrate both conceptual understanding and pedagogical readiness. However, limited empirical evidence exists regarding teachers' readiness to operationalize deep learning principles in Islamic secondary education. This study aims to analyze the readiness of Fiqh teachers in implementing a deep learning approach within the Independent Curriculum at MTs Muslimat NU Palangka Raya. The research employed a qualitative descriptive design involving Fiqh teachers as the primary participants. Data were collected through in-depth interviews, classroom observations, and analysis of instructional documents, including teaching modules and lesson plans. Data validity was ensured through triangulation of sources and techniques. The findings indicate that teachers possess an adequate conceptual understanding of deep learning and attempt to implement it through discussion-based learning, problem-solving strategies, and reflective learning practices. However, the systematic integration of deep learning principles into instructional planning—particularly in the development of structured teaching modules—remains limited. Consequently, teachers' readiness can be categorized as moderate. This study highlights the need for targeted professional development and continuous mentoring to strengthen teachers' pedagogical competence. The originality of this study lies in its focus on teacher readiness for deep learning implementation within the madrasah context under the Independent Curriculum reform.

**Keywords:** Deep learning approach, independent curriculum, teacher readiness, fiqh education, madrasah education.

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### **Introduction**

The transformation of contemporary education systems increasingly emphasizes the importance of deep learning approaches that foster higher-order thinking, conceptual understanding, and meaningful knowledge construction among students. In contrast to traditional surface-level learning that prioritizes memorization and procedural knowledge, deep learning encourages learners to critically engage with concepts, apply knowledge to real-world contexts, and develop reflective and analytical competencies (Fullan et al., 2020; Hattie & Donoghue, 2016; Sawyer, 2022). As educational paradigms shift toward student-centered learning and competency-based curricula, teachers play a central role in facilitating pedagogical practices that enable deeper cognitive engagement and intellectual inquiry in classroom settings.

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**AUTHOR CORRESPONDENT:** \*[rabbiatulalawiyah24@mail.com](mailto:rabbiatulalawiyah24@mail.com)

Correspondent Address Author:

Islamic Centre Complex, Jl. G. Obos, Menteng, Jekan Raya, Palangka Raya City, Central Kalimantan 73112, Indonesia.

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Teacher readiness has been widely recognized as a critical factor influencing the success of curriculum reform and pedagogical innovation. Research indicates that even well-designed educational policies often face implementation challenges when teachers lack sufficient pedagogical knowledge, professional support, or institutional resources to operationalize new instructional approaches (Fullan, 2020; Opfer & Pedder, 2019; Schleicher, 2023). Consequently, examining teachers' readiness is essential for understanding how educational reforms are enacted in practice and for identifying potential gaps between policy expectations and classroom realities.

Recent scholarship in educational research increasingly emphasizes the importance of deep learning pedagogies as a transformative framework for fostering higher-order thinking, conceptual understanding, and meaningful knowledge construction in contemporary classrooms (Fullan et al., 2020; Darling-Hammond et al., 2020; OECD, 2023). Deep learning approaches move beyond surface-level memorization by encouraging students to engage in critical inquiry, collaborative problem-solving, and reflective knowledge integration that enables learners to apply concepts in complex real-world contexts (Bellanca & Brandt, 2021; Hattie & Donoghue, 2016; Schleicher, 2023). Within this paradigm, teachers are expected to function not merely as knowledge transmitters but as facilitators of inquiry-oriented learning environments that stimulate intellectual curiosity and conceptual exploration (Darling-Hammond et al., 2020; Kim & Tan, 2021; Voogt et al., 2022). Consequently, the success of deep learning pedagogy largely depends on teachers' readiness to design learning experiences that integrate critical thinking, problem-solving, and reflective engagement in instructional practice (Korthagen, 2021; Naylor & Nyanjom, 2021; OECD, 2023).

In recent years, the concept of teacher readiness has gained increasing attention within educational reform studies, particularly in relation to the implementation of innovative pedagogical approaches and competency-based curricula (Fullan, 2020; Opfer & Pedder, 2019; Schleicher, 2023). Teacher readiness encompasses multiple dimensions, including conceptual understanding of pedagogical principles, pedagogical competence in designing learning activities, and professional attitudes that support instructional transformation (Darling-Hammond et al., 2020; Kelchtermans, 2022; Nkundabakura et al., 2024). Empirical research suggests that curriculum reforms frequently encounter implementation challenges when teachers possess adequate theoretical awareness but lack the pedagogical capacity to translate educational concepts into systematic instructional practice (Avidov-Ungar, 2023; Ostinelli & Crescentini, 2024; Verger et al., 2021). As a result, understanding teachers' readiness becomes essential for explaining the gap between curriculum policy design and its practical enactment in classrooms (Fullan, 2020; Naylor & Nyanjom, 2021; Schleicher, 2023).

Within the Indonesian educational context, the introduction of the *Independent Curriculum (Kurikulum Merdeka)* represents a major educational reform aimed at promoting deeper conceptual learning, student-centered pedagogy, and flexible curriculum implementation (Ministry of Education, Culture, Research, and Technology, 2022; Suryadi & Budimansyah, 2021; Widodo, 2022). The curriculum emphasizes competency-based learning, differentiated instruction, and contextual learning experiences that enable students to develop critical thinking and problem-solving skills (Yusuf et al., 2023; Wulandari et al., 2022; Sari & Nugroho, 2023). Within this framework, deep learning pedagogy is expected to function as a central instructional strategy that encourages meaningful knowledge construction and active student engagement (Schleicher, 2023; Darling-Hammond et al., 2020; OECD, 2023). However, the implementation of such pedagogical transformation requires substantial shifts in teachers' instructional beliefs, pedagogical strategies, and classroom practices (Avidov-Ungar, 2023; Kelchtermans, 2022; Ostinelli & Crescentini, 2024).

In the context of Islamic education, particularly within *Madrasah Tsanawiyah*, the integration of deep learning approaches presents a unique pedagogical challenge. Religious education subjects such as Fiqh traditionally rely on textual transmission and doctrinal explanation, which often prioritize memorization and teacher-centered instruction (Tan, 2020; Sahin, 2021; Azra, 2019). While such approaches remain important for preserving doctrinal authenticity, contemporary scholarship increasingly advocates for the incorporation of inquiry-based learning, contextual reasoning, and reflective interpretation within Islamic education

(Sahin, 2021; Tan, 2020; Abdullah, 2022). These pedagogical innovations aim to enable students to understand Islamic jurisprudence not only as a body of legal rulings but also as a dynamic intellectual tradition that requires critical interpretation and contextual application (Azra, 2019; Abdullah, 2022; Sahin, 2021).

Despite growing scholarly attention to deep learning and teacher readiness, several important gaps remain within the existing literature. First, most empirical studies on deep learning pedagogy have been conducted in general education or STEM disciplines, with limited attention given to religious education contexts (Darling-Hammond et al., 2020; Kim & Tan, 2021; Voogt et al., 2022). Second, studies on the implementation of the Independent Curriculum in Indonesia have primarily focused on policy analysis, curriculum design, or teacher perceptions rather than examining how specific pedagogical approaches are enacted within subject-specific learning environments (Suryadi & Budimansyah, 2021; Widodo, 2022; Yusuf et al., 2023). Third, research examining teacher readiness within Islamic secondary education remains relatively scarce, particularly in relation to how teachers conceptualize and operationalize deep learning approaches in the teaching of Fiqh (Sahin, 2021; Abdullah, 2022; Tan, 2020).

Addressing these gaps, the present study offers several contributions to the existing body of knowledge. First, the study provides empirical insights into the readiness of Fiqh teachers in implementing deep learning pedagogical approaches within the context of Islamic secondary education. Second, the research integrates the discourse of deep learning pedagogy with the study of religious education, thereby extending existing scholarship beyond the dominant focus on general education subjects. Third, the study situates the analysis within the framework of Indonesia's Independent Curriculum reform, providing context-specific insights into how curriculum innovation is interpreted and enacted in madrasah institutions.

The novelty of this research lies in its integrative approach that combines three analytical dimensions: *deep learning pedagogy*, *teacher readiness*, and *Islamic subject-specific instruction*. While previous studies often examine these themes separately, this study analyzes how they interact within the specific context of Fiqh teaching in madrasah education. By doing so, the research contributes to the development of a more nuanced understanding of how pedagogical innovation is negotiated within religious educational settings and how teachers adapt global educational concepts to local institutional realities.

Based on these considerations, the study aims to analyze the readiness of Fiqh teachers in implementing deep learning pedagogical approaches within the Independent Curriculum at Madrasah Tsanawiyah Muslimat Nahdlatul Ulama in Palangka Raya, Indonesia. Specifically, the research seeks to explore three key aspects: (1) teachers' conceptual understanding of deep learning pedagogy, (2) teachers' pedagogical practices in implementing deep learning within Fiqh instruction, and (3) the challenges encountered in integrating deep learning principles into instructional planning and classroom practices. Through this analysis, the study seeks to contribute to the broader discourse on teacher readiness, curriculum reform, and pedagogical transformation in Islamic education.

## Literature review

### Teacher readiness

Etymologically, the word readiness comes from the root word "ready" which means ready or ready to do something (Nursyaidah, Fitri Rayani Siregar, 2024). Teacher readiness is one of the key factors in the successful implementation of educational innovation, including changes in curriculum and learning approaches. Readiness not only refers to the state of readiness technically, but also includes cognitive, affective, and professional aspects that enable teachers to respond effectively to change. Hamzah B. Uno explained that readiness is an individual's internal condition that reflects the ability and willingness to respond appropriately to a certain situation or task (Sari et al., 2024).

Teacher readiness in the context of education is understood as a multidimensional condition that includes pedagogical knowledge, attitudes towards curriculum changes and government policies (Graduation, 2021). Juliana explained that teachers must be able to cope with changes in the curriculum and new learning approaches (Scott, 2024). This concept is similar to the view that readiness must be accompanied by *Willingness to improve*, that is, the desire to

continue learning and improving one's quality (Rowina et al., 2024). Silalahi and Naibaho (2023) emphasized that teachers' readiness is influenced by several main factors, including pedagogical and professional competence, experience and training, motivation for change, and institutional support and learning facilities. (Pendi et al., 2024). Thus, teacher readiness is a condition where teachers have the competence, knowledge, attitude, and emotional readiness to carry out the learning process optimally in accordance with the demands of the curriculum (Silalahi & Naibaho, 2023). Analysis related to teacher readiness cannot be separated from a deep understanding of learning used in independent curriculum. One of the main approaches prepared in the Independent Curriculum is *Deep Learning* or deep learning (Mawardi, 2025).

### Deep learning approach in education

Etymologically, *Deep Learning* Derived from the word *In* "in" and *Learning* "learning", so that it can be interpreted as deep and meaningful learning. According to (Sakhi & Najicha, 2023) states that *Deep Learning* is an approach that emphasizes deep mastery of concepts and not only memorizing theories but so that students can combine theory with real context in relation to everyday life. Pendekatan *deep learning* In the context of education, it refers to a learning process that encourages students to understand concepts in depth, connect knowledge with real experiences, and develop high-level thinking skills.

Deep learning emphasizes the active involvement of students in the learning process through analysis, reflection, and problem-solving activities. (Suardi & Juhji, 2018), in this approach, students are encouraged to be able to construct knowledge independently and relate it to real life. In the context of the implementation of the independent curriculum, the deep learning approach is often associated with three main dimensions of learning, namely mindful learning, meaningful learning, and joyful learning. These three dimensions aim to create a more reflective, contextual, and student-centered learning experience so as to improve the quality of student understanding and involvement in the learning process (Kurniawan, 2025). Education Minister Abdul Muti, stated *Deep Learning* It has three pillars as follows (Dr. Nugraha Gumilar & Rizal Mutaqin, 2025). ***Mindful learning*** **Etymologically** *Laughter Attentive* (fully conscious), which means strengthening self-awareness and mental presence during learning. Abdul Mu'ti emphasized that students must be active *Present and Aware* In the learning process, teachers are obliged to respect the differences in abilities and needs of each student. **According to** (Silalahi & Naibaho, 2023) He added that mindful learning includes a trend of "mindfulness, mindfulness, acceptance" that encourages students to think reflectively, improve focus, and build self-control. By building mindfulness, students learn to assess their own strengths and weaknesses, manage their thoughts, and improve attention and concentration are important cornerstones for conceptual learning. ***Meaningful learning***. In the language *Meaningful* (that is), meaning that the learning material must be appropriate, relevant, and can be integrated with the real experience of the students. Abdul Mu'ti said that learning must provide meaning and a direct relationship with students' lives so that what is learned feels so important. Students can benefit from more critical and in-depth learning and can form long-term understanding. ***Joyful learning***. Etymologically, the term *Happy* comes from an English word meaning "joyful" or "joyful." When integrated into learning, *Fun learning* emphasizing the importance of the role of positive emotions in the educational process. Pleasurable emotions are believed to create clearer, more meaningful, and rooted learning experiences in long-term memory (Agus Nurjaman, 2019).

### The Independent Curriculum and its implications for the role of teachers

In the current era, teachers play the role of Learning Facilitators and Partners, and not just the material teacher (Ashari et al., 2025). According to the guide *New Pedagogics for Deep Learning* Teachers must be able to build Learning Partnerships with students as well as parents and others to create an authentic, relevant, and collaborative learning environment (Zainuri et al., 2026). The suite of deep learning competencies, including critical thinking, creativity, and collaboration, requires teachers to design learning situations that facilitate students in designing, monitoring, and assessing their own learning processes (Zulela, 2025).

The Independent Curriculum is an educational policy designed to provide flexibility innovation to schools and teachers in designing learning according to the characteristics of

students. The curriculum encourages a learner-centered approach to learning, and can facilitate a learning process that is relevant to real-life in practice. Thus, the Independent Curriculum is an important foundation for the implementation of learning-based learning *Deep Learning* (Fauzi, 2025).

The implementation of the Independent Curriculum has significant implications for the role of teachers in the learning process. Teachers no longer play the role of the main source of knowledge, but as facilitators who support students in building understanding independently. In the framework of deep learning, teachers are expected to be able to design a learning environment that encourages collaboration, reflection, and exploration of knowledge actively. Teachers play the role of active, creative, and adaptive learning facilitators. Teachers need to implement a learning strategy that integrates elements of *attentive, meaningful, and Fun learning*. (Johan et al., 2024; Nupita et al., 2024,). a number of studies show that the implementation of the Independent Curriculum still faces various challenges, especially related to teacher readiness. This requires teacher readiness in terms of pedagogical competence, mastery of technology, and adequate support of learning facilities.

### Supporting factors for teacher readiness

Teachers' readiness to face the dynamics of curriculum changes is influenced by various supporting factors. One of the main factors is professional competence (Abdillah et al., 2024). which includes understanding teaching materials, the ability to apply appropriate learning methods, and skills in designing contextual and digital assessments. Teachers who master these aspects tend to be better equipped to implement *Deep Learning* in learning that requires deep and creative thinking, as emphasized in the Independent Curriculum (Hanifah, 2019). In addition to the competency aspect, support from educational institutions also strengthens teacher readiness. Ongoing training, access to teaching tools, and support from visionary principals are important factors that build teachers' confidence in undergoing change (Abdillah et al., 2024). So that a collaborative and reflective work culture in the school environment accelerates teachers' adaptation to new learning approaches. On the other hand, the motivation contained in teachers, such as the spirit of learning and moral responsibility as educators, also plays an important role in being able to form readiness that is resistant to external challenges (Saharuddin et al., 2022).

It is important for schools and local governments to identify these two factors, namely supporters and inhibitors, in order to maximize the implementation of quality learning according to the direction of the Independent Curriculum. In the learning process, the right methods and approaches are needed. Choosing the right method will make the educational process, including Islamic religious education, run effectively (Tambak & Muhammad, 2016). This identification allows for targeted interventions, such as increasing teacher capacity, providing learning facilities, and resetting administrative burdens. In addition, education policies at the regional level can be directed at the creation of a learning ecosystem that encourages innovation and pedagogical reflection. By strengthening collaboration between policymakers and education actors on the ground, learning-based transformation *Deep Learning* can be realized more evenly and sustainably.

## Method

### Research design

This study employed a *qualitative research design using a case study approach* to explore the readiness of Fiqh teachers in implementing the deep learning pedagogical approach within the Independent Curriculum. Qualitative research is particularly appropriate for examining complex educational phenomena because it enables researchers to investigate participants' experiences, perceptions, and practices within their natural contexts (Creswell & Poth, 2018; Flick, 2022; Maxwell, 2021). Unlike quantitative approaches that focus on measurement and statistical relationships, qualitative research emphasizes the interpretation of meaning, allowing researchers to understand how individuals construct knowledge and interpret their professional experiences in educational settings (Denzin & Lincoln, 2018; Tracy, 2020; Silverman, 2020).

Within qualitative inquiry, the *case study approach* is widely used to explore a bounded system or specific institutional context in depth, enabling researchers to investigate

contemporary phenomena within real-life settings where contextual factors play a significant role (Yin, 2018; Stake, 2013; Creswell & Poth, 2018). This approach is particularly relevant for examining the implementation of educational reforms and pedagogical innovations, as it allows for a detailed understanding of how teachers interpret and enact new instructional frameworks within their local contexts (Merriam & Tisdell, 2016; Baxter & Jack, 2008; Yin, 2018). In the present study, the case study design was selected to analyze the readiness of Fiqh teachers in applying deep learning principles within the Independent Curriculum, focusing on their conceptual understanding, pedagogical practices, and instructional challenges encountered in classroom implementation.

### Research setting

The research was conducted at *Madrasah Tsanawiyah (MTs) Muslimat Nahdlatul Ulama Palangka Raya, Indonesia*, an Islamic secondary educational institution implementing the Independent Curriculum. Madrasah institutions represent a distinctive educational environment that integrates national curriculum policies with Islamic religious education, thereby creating a unique pedagogical context for studying curriculum reform and instructional innovation (Tan, 2020; Sahin, 2021; Azra, 2019). The Independent Curriculum introduced by the Indonesian government emphasizes student-centered learning, competency-based education, and deeper conceptual engagement in learning processes (Ministry of Education, Culture, Research, and Technology, 2022; Suryadi & Budimansyah, 2021; Widodo, 2022).

Within this institutional context, the study specifically examined *Fiqh instruction*, a central component of Islamic education that focuses on Islamic jurisprudence and ethical principles governing Muslim life. Traditionally, Fiqh learning has been characterized by textual transmission and doctrinal explanation, often emphasizing memorization of legal rulings rather than inquiry-based learning processes (Tan, 2020; Sahin, 2021; Abdullah, 2022). Investigating how deep learning pedagogical approaches are applied within this subject therefore provides an important opportunity to understand how modern pedagogical frameworks are integrated into religious education settings.

### Participants and sampling

The participants of this study consisted of *three Fiqh teachers* who were directly involved in the planning, implementation, and evaluation of learning activities within the Independent Curriculum. The participants were selected using *purposive sampling*, a technique widely used in qualitative research to identify individuals who possess relevant knowledge, experience, and involvement related to the research topic (Patton, 2015; Creswell & Poth, 2018; Maxwell, 2021). Purposive sampling enables researchers to obtain rich and meaningful data by selecting participants who can provide detailed insights into the phenomenon under investigation (Flick, 2022; Tracy, 2020; Merriam & Tisdell, 2016).

The selection criteria for participants included: (1) teachers who actively teach Fiqh at MTs Muslimat NU Palangka Raya, (2) teachers who have implemented the Independent Curriculum in their instructional practice, and (3) teachers who are involved in designing and implementing learning activities aligned with deep learning principles. By selecting participants who met these criteria, the study ensured that the collected data reflected authentic experiences and practical challenges encountered by teachers in implementing deep learning pedagogical approaches within the madrasah learning environment.

### Data sources

The study utilized both *primary and secondary data sources* to obtain a comprehensive understanding of the research phenomenon. Primary data were collected directly from the participants through *in-depth interviews and classroom observations*, allowing the researcher to capture teachers' perspectives, pedagogical strategies, and instructional experiences in implementing deep learning practices (Creswell & Poth, 2018; Maxwell, 2021; Flick, 2022). Interviews provide an opportunity to explore participants' beliefs, interpretations, and professional reflections in detail, while observations allow researchers to examine how these

perspectives are enacted in real classroom practices (Silverman, 2020; Tracy, 2020; Denzin & Lincoln, 2018).

Secondary data were obtained from supporting documents, including teaching modules, lesson plans, instructional materials, photographs of classroom activities, textbooks, and relevant academic literature. These documents provided additional contextual information regarding how deep learning principles were incorporated into instructional planning and learning activities (Bowen, 2009; Flick, 2022; Creswell & Poth, 2018). By combining multiple data sources, the study aimed to strengthen the depth and credibility of the research findings through data triangulation.

### **Data collection techniques**

Data were collected using three primary techniques: *semi-structured interviews, classroom observations, and documentation analysis*. *In-depth interviews*. Semi-structured interviews were conducted with the Fiqh teachers to explore their understanding of deep learning pedagogy and their experiences in implementing it within the Independent Curriculum. Semi-structured interviews allow researchers to guide the conversation using predetermined questions while still providing participants with flexibility to elaborate on their experiences and perspectives (Kvale & Brinkmann, 2015; Creswell & Poth, 2018; Flick, 2022). The interview questions focused on several key themes, including teachers' conceptual understanding of deep learning, instructional planning strategies, classroom implementation practices, and evaluation of learning outcomes.

*Classroom observations* were conducted to examine how deep learning pedagogical principles were implemented in real instructional settings. Observational data allow researchers to capture authentic teaching practices, classroom interactions, and student engagement during the learning process (Angrosino, 2016; Flick, 2022; Maxwell, 2021). Through direct observation, the researcher was able to document how teachers organized learning activities, facilitated discussions, and engaged students in problem-solving and reflective learning processes.

*Documentation analysis* was used to examine instructional materials such as teaching modules, lesson plans, and learning tools prepared by the teachers. Document analysis is a valuable qualitative research technique that provides insights into institutional practices, instructional planning, and curriculum implementation (Bowen, 2009; Flick, 2022; Merriam & Tisdell, 2016). These documents helped the researcher understand how deep learning concepts were translated into formal instructional designs and supported the interpretation of interview and observation data.

### **Data analysis**

Data analysis was conducted using the interactive analysis model proposed by Miles, Huberman, and Saldaña (2014), which consists of three interrelated stages: data reduction, data display, and conclusion drawing/verification. This analytical framework is widely used in qualitative research because it enables systematic organization and interpretation of complex textual data (Miles et al., 2014; Creswell & Poth, 2018; Saldaña, 2021).

The data reduction stage involved selecting, focusing, and organizing raw data obtained from interviews, observations, and documentation. During this stage, the researcher identified relevant information related to teachers' readiness to implement deep learning pedagogy. The data display stage involved organizing the reduced data into descriptive narratives and thematic categories to facilitate interpretation and pattern identification. Finally, the conclusion drawing stage involved identifying relationships, patterns, and meanings emerging from the data and linking these findings with theoretical frameworks and previous research on teacher readiness and deep learning pedagogy.

### **Trustworthiness and data validity**

To ensure the credibility and trustworthiness of the research findings, this study employed triangulation techniques, including source triangulation and methodological triangulation (Lincoln & Guba, 1985; Creswell & Poth, 2018; Flick, 2022). Source triangulation was conducted by comparing information obtained from the three participating Fiqh teachers to identify similarities and differences in their perspectives and instructional practices. Methodological

triangulation was carried out by comparing data obtained from interviews, classroom observations, and documentation analysis.

These triangulation strategies enabled the researcher to cross-check the consistency of the data and enhance the reliability of the findings by integrating multiple perspectives and sources of evidence (Denzin & Lincoln, 2018; Tracy, 2020; Flick, 2022). Through these procedures, the study sought to ensure that the conclusions drawn from the data accurately reflected participants' experiences and the educational realities within the madrasah context.

## Results

### Teachers' conceptual understanding of the deep learning approach

The first theme emerging from the analysis concerns teachers' conceptual understanding of the deep learning pedagogical approach within the context of the Independent Curriculum. Overall, the findings indicate that the participating Fiqh teachers possess a relatively adequate understanding of deep learning principles, particularly regarding the importance of student-centered learning, active engagement, and reflective thinking in the learning process. The teachers perceived deep learning not merely as a teaching method but as a pedagogical orientation that encourages students to understand religious concepts more deeply and meaningfully.

One teacher explained that deep learning emphasizes meaningful understanding rather than memorization of religious concepts. According to Teacher 1 (INT-01):

"Deep learning means that students do not only memorize the rules of fiqh, but they also understand the reasons behind those rules and how they apply them in daily life." (INT-01)

Similarly, Teacher 2 (INT-02) highlighted that deep learning encourages critical thinking in understanding Islamic legal concepts. The teacher explained:

"In deep learning, students are encouraged to discuss cases and analyze them. For example, when discussing Islamic law, students are asked to think about how these rules are relevant to current social situations." (INT-02)

These perceptions were also confirmed through classroom observations. During the observation process, the researcher found that teachers attempted to encourage student participation through classroom discussions and reflective questioning. For instance, during a Fiqh lesson on Islamic legal principles, the teacher invited students to discuss real-life cases related to Islamic jurisprudence. This activity demonstrated an effort to connect theoretical knowledge with practical contexts. These findings were recorded in Observation Note 1 (OBS-01) and Observation Note 2 (OBS-02).

Documentation analysis also supported these findings. Teaching modules prepared by the teachers contained learning objectives that emphasized conceptual understanding and reflective learning activities. However, the modules did not consistently include structured learning stages that explicitly reflected deep learning principles. Evidence of this was found in the analyzed instructional documents coded as DOC-01 (Teaching Module) and DOC-02 (Lesson Plan).

The interview data further revealed that teachers interpret the deep learning approach as a pedagogical orientation that emphasizes meaningful understanding of Islamic jurisprudence rather than mere memorization of legal concepts. Teachers explained that the teaching of Fiqh should encourage students to analyze the underlying principles of Islamic law and relate them to contemporary social contexts, thereby allowing learners to internalize religious knowledge in a reflective and practical manner. One teacher emphasized that deep learning encourages students to explore the rationale behind religious rules so that they can apply them responsibly in their daily lives. As stated by Teacher 1 (INT-01), "*Deep learning means that students do not only memorize the rules of fiqh, but they also understand the reasons behind those rules and how they apply them in daily life.*" This perspective illustrates that teachers perceive deep learning as a process that promotes conceptual understanding, critical reflection, and contextual application of religious knowledge within students' everyday experiences.



Further insights from the interviews indicate that teachers view deep learning as closely related to the development of students' critical thinking skills in analyzing Islamic legal concepts. Teachers explained that encouraging students to discuss real-life cases allows them to examine different perspectives and evaluate how Islamic jurisprudence addresses contemporary issues. According to Teacher 2 (INT-02), *"In deep learning, students are encouraged to discuss cases and analyze them. For example, when discussing Islamic law, students are asked to think about how these rules are relevant to current social situations."* This statement demonstrates that teachers attempt to move beyond traditional lecture-based instruction by facilitating analytical discussions that engage students intellectually. Through such practices, teachers expect students to develop deeper cognitive engagement with the subject matter rather than relying solely on rote learning.

The findings from classroom observations further reinforce the interview results, showing that teachers actively attempt to encourage student participation during the learning process. During the observed Fiqh lessons, teachers frequently used questioning techniques, group discussions, and case-based learning activities to stimulate students' engagement with the topic being discussed. For example, in one observed lesson on Islamic legal principles, the teacher presented a contemporary social scenario and asked students to discuss how the principles of Fiqh could be applied in that context. Students were encouraged to share their opinions, respond to their peers' arguments, and justify their reasoning based on religious sources and logical considerations. These instructional interactions were recorded in Observation Note 1 (OBS-01) and Observation Note 2 (OBS-02), indicating that teachers attempted to implement elements of deep learning pedagogy in classroom practice.

The analysis of instructional documents also provided additional evidence supporting the interview and observation findings. The teaching modules and lesson plans prepared by the teachers contained learning objectives that emphasized conceptual understanding, reflective thinking, and student participation in the learning process. Several instructional activities included discussion sessions, case analysis, and reflective questioning designed to encourage deeper engagement with the learning materials. However, the documentation analysis also revealed that the learning modules did not consistently include structured stages that explicitly represented the deep learning pedagogical framework. This discrepancy suggests that while teachers conceptually understand the principles of deep learning, the systematic integration of these principles into instructional planning remains limited. Evidence of these patterns was identified in the analyzed instructional documents coded as DOC-01 (Teaching Module) and DOC-02 (Lesson Plan).

### **Pedagogical practices in implementing deep learning in Fiqh instruction**

The second theme relates to the pedagogical strategies used by teachers when implementing deep learning principles in classroom practice. The findings indicate that teachers attempted to apply several student-centered instructional strategies such as discussion-based learning, problem-solving activities, and reflective learning exercises. These strategies were considered effective for encouraging students to actively engage with learning materials and develop deeper conceptual understanding. During interviews, teachers emphasized the importance of interactive learning in supporting the deep learning process. Teacher 3 (INT-03) explained that discussion-based learning is frequently used to stimulate students' thinking:

*"When teaching fiqh, I try to involve students in discussions about everyday issues related to Islamic law so that they can think critically and understand the concepts more deeply."* (INT-03)

Similarly, another teacher described how reflective learning activities were used to encourage students to connect religious concepts with their daily experiences. According to Teacher 1 (INT-01):

*"After explaining the lesson, I usually ask students to reflect on how the topic relates to their daily life. This helps them understand that fiqh is not only theory but also guidance for real-life situations."* (INT-01)

Observational data confirmed that teachers often encouraged active participation through question-and-answer sessions and group discussions. In several observed lessons, students were asked to analyze real-life cases related to Islamic jurisprudence, discuss them in small groups, and present their conclusions to the class. These activities were recorded in Observation Notes (OBS-03 and OBS-04). Documentation analysis further indicated that teachers attempted to design learning activities that promoted student engagement. Several lesson plans included activities such as case analysis, group discussions, and reflective assignments. However, the structure of these activities was not always systematically aligned with deep learning instructional models. These findings were identified in Instructional Documents (DOC-03 and DOC-04).

The interview data further indicate that teachers consciously employ discussion-based learning as a primary pedagogical strategy to foster deeper engagement with Fiqh concepts. Teachers explained that classroom discussions allow students to explore multiple perspectives on Islamic legal issues and encourage them to articulate their reasoning based on religious principles and real-life experiences. Through these discussions, students are not only exposed to doctrinal explanations but are also guided to critically analyze how Islamic jurisprudence can address contemporary societal challenges. As explained by Teacher 3 (INT-03), *"When teaching fiqh, I try to involve students in discussions about everyday issues related to Islamic law so that they can think critically and understand the concepts more deeply."* This statement demonstrates that teachers intentionally design learning activities that stimulate analytical thinking and encourage students to connect theoretical knowledge with real-world contexts.

In addition to discussion-based learning, teachers also highlighted the importance of reflective learning activities in facilitating deep understanding of religious teachings. Reflection was frequently used as a pedagogical tool to help students internalize the moral and ethical dimensions of Islamic jurisprudence. Teachers explained that reflective questions encourage students to evaluate how the principles discussed in class relate to their personal behavior and social interactions. According to Teacher 1 (INT-01), *"After explaining the lesson, I usually ask students to reflect on how the topic relates to their daily life. This helps them understand that fiqh is not only theory but also guidance for real-life situations."* Such reflective activities indicate that teachers aim to integrate cognitive and moral learning processes so that students can develop both conceptual understanding and ethical awareness.

The findings from classroom observations further support the interview data regarding the use of interactive pedagogical strategies in Fiqh instruction. During several observed lessons, teachers actively encouraged student participation through question-and-answer sessions, collaborative group discussions, and problem-solving activities related to real-life Islamic legal issues. For instance, students were asked to analyze case scenarios related to daily religious practices and then discuss possible solutions based on Islamic jurisprudential principles. Students worked in small groups to debate their interpretations before presenting their conclusions to the class, thereby promoting collaborative learning and critical reasoning. These interactive classroom practices were documented in Observation Notes (OBS-03) and Observation Notes (OBS-04), which indicate that teachers attempted to implement elements of deep learning pedagogy through participatory learning activities.

The analysis of instructional documents also revealed that teachers attempted to incorporate student-centered learning strategies within their lesson planning. Several teaching modules included activities such as case-based learning tasks, group discussions, reflective assignments, and problem-solving exercises designed to promote deeper engagement with learning materials. These activities indicate that teachers recognize the importance of active learning strategies in supporting the development of students' conceptual understanding of Fiqh. However, the documentation analysis also showed that these activities were not always systematically organized according to a structured deep learning instructional framework. As a result, although teachers demonstrated awareness of student-centered learning principles, the alignment between lesson planning and deep learning pedagogy remained partial. Evidence of these instructional patterns was identified in Instructional Documents (DOC-03) and Instructional Documents (DOC-04).

## Challenges in implementing deep learning pedagogical practices

The third theme emerging from the analysis concerns the challenges faced by teachers in implementing deep learning pedagogy within the Independent Curriculum framework. Although teachers demonstrated a conceptual understanding of deep learning principles, several challenges were identified in translating these concepts into systematic instructional practices. One major challenge relates to instructional planning. Teachers acknowledged that designing teaching modules aligned with deep learning principles requires significant pedagogical preparation. Teacher 2 (INT-02) explained:

“The concept of deep learning is clear to us, but sometimes it is difficult to translate it into structured lesson plans or teaching modules.” (INT-02)

Another challenge relates to time constraints during classroom instruction. Teachers reported that deep learning activities such as group discussions and case analysis often require more time compared to conventional lecture-based teaching. Teacher 3 (INT-03) stated:

“Discussion and case analysis take longer time in the classroom, and sometimes it is difficult to complete all learning objectives within the limited class hours.” (INT-03)

Classroom observations also revealed that teachers occasionally returned to lecture-based explanations when time was limited. This pattern was recorded in Observation Note (OBS-05), where the teacher shifted from group discussion to direct explanation due to time constraints. Furthermore, documentation analysis indicated that although teaching modules included some student-centered activities, they did not consistently integrate the stages of deep learning pedagogy in a systematic manner. For example, several lesson plans focused primarily on conceptual explanation rather than structured inquiry-based learning sequences. These findings were identified in Document Codes (DOC-05 and DOC-06).

The interview data further reveal that teachers experience difficulties in translating the theoretical concept of deep learning into structured instructional planning. Although teachers understand that deep learning requires learning activities that emphasize critical thinking, collaboration, and reflection, they reported that organizing these elements systematically in teaching modules is not always easy. Teachers explained that designing lesson plans aligned with deep learning principles requires careful preparation, including the development of learning scenarios, discussion questions, and contextual cases that can stimulate students' analytical thinking. As stated by Teacher 2 (INT-02), *“The concept of deep learning is clear to us, but sometimes it is difficult to translate it into structured lesson plans or teaching modules.”* This statement indicates that while teachers possess conceptual awareness of deep learning pedagogy, they still require additional pedagogical support in designing instructional plans that fully reflect deep learning principles.

Another challenge identified in the interviews relates to the complexity of organizing classroom activities that encourage active student participation. Teachers noted that deep learning pedagogy requires the implementation of interactive learning strategies such as group discussions, case analysis, and collaborative problem-solving activities. However, these learning activities often demand more time and classroom management skills compared to conventional lecture-based instruction. Teachers explained that facilitating meaningful discussions among students requires careful planning and active guidance from the teacher to ensure that all students remain engaged in the learning process. According to Teacher 3 (INT-03), *“Discussion and case analysis take longer time in the classroom, and sometimes it is difficult to complete all learning objectives within the limited class hours.”* This finding suggests that time constraints represent a significant barrier to the consistent implementation of deep learning pedagogy in Fiqh instruction.

The interview findings also indicate that teachers sometimes struggle to balance curriculum requirements with the implementation of student-centered learning approaches. Teachers reported that the Independent Curriculum encourages deeper conceptual understanding and student engagement, yet the limited instructional time available in the classroom can make it challenging to implement comprehensive deep learning activities. As a result, teachers

occasionally revert to more traditional lecture-based explanations in order to complete the required learning materials within the allocated time. This pattern reflects the tension between curriculum expectations and practical classroom constraints experienced by teachers. The presence of this instructional adaptation was also noted in Observation Note (OBS-05), where the teacher shifted from group discussion activities to direct explanation due to time limitations.

Furthermore, the observational data revealed that although teachers attempted to integrate interactive learning strategies, the implementation of deep learning activities sometimes remained partial or inconsistent. During several classroom observations, teachers initiated discussion-based learning activities but later returned to teacher-centered explanations when classroom discussions became difficult to manage or when time constraints arose. This shift suggests that teachers are still in the process of adapting to new pedagogical practices promoted by the Independent Curriculum. The observational records indicate that while teachers demonstrate willingness to implement deep learning strategies, they still rely on familiar teaching practices when encountering practical challenges during instruction. These instructional patterns were documented in Observation Note (OBS-05) and provide additional evidence regarding the challenges teachers face in implementing deep learning pedagogy.

The documentation analysis also reinforces the findings from interviews and observations regarding the limitations of instructional planning. Although the analyzed teaching modules included several student-centered learning activities such as case discussions, reflective assignments, and collaborative tasks, the structure of these modules did not consistently reflect the stages of deep learning pedagogy. In several lesson plans, learning activities were primarily focused on delivering conceptual explanations rather than facilitating systematic inquiry-based learning processes. As a result, the learning design did not always fully support the development of higher-order thinking and reflective learning experiences expected within the deep learning framework. Evidence of these instructional patterns was identified in Document Codes (DOC-05) and Document Codes (DOC-06), which indicate that teachers' conceptual understanding of deep learning has not yet been fully translated into comprehensive pedagogical design.

## Discussion

The findings of this study demonstrate that Fiqh teachers in madrasah education possess a relatively adequate conceptual understanding of the deep learning pedagogical approach within the Independent Curriculum framework. Contemporary educational scholarship emphasizes that deep learning promotes conceptual understanding, reflective thinking, and the development of higher-order cognitive skills in learners (Darling-Hammond et al., 2020; OECD, 2023; Schleicher, 2023). These principles are closely aligned with Islamic intellectual traditions that emphasize reflective inquiry (*tafakkur*) and deep understanding of knowledge rather than superficial memorization (Sahin, 2021; Tan, 2020; Abdullah, 2022). In Islamic educational philosophy, learning is understood as a process of intellectual and moral cultivation that integrates knowledge, reflection, and ethical application (Azra, 2019; Sahin, 2021; Al-Attas, 1999). Therefore, the conceptual understanding demonstrated by teachers in this study indicates an important convergence between contemporary educational theory and Islamic pedagogical traditions (Tan, 2020; Sahin, 2021; Halstead, 2022). Such convergence suggests that deep learning pedagogy can be effectively integrated within Islamic educational contexts when teachers reinterpret religious instruction through reflective and contextual approaches (Abdullah, 2022; Tan, 2020; Azra, 2019). Consequently, the findings highlight the potential for deep learning pedagogy to enrich Islamic education by encouraging critical engagement with religious knowledge rather than mere textual transmission (Sahin, 2021; Halstead, 2022; Tan, 2020).

Another important finding concerns teachers' efforts to implement student-centered pedagogical strategies such as discussion-based learning and problem-solving activities in Fiqh instruction. Student-centered pedagogy is widely recognized as a fundamental principle of deep learning because it encourages learners to actively construct knowledge through inquiry, dialogue, and reflection (Darling-Hammond et al., 2020; Voogt et al., 2022; OECD, 2023). This approach resonates with classical Islamic educational traditions that emphasize dialogue (*munāẓarah*) and intellectual debate as methods for developing deeper understanding of religious knowledge (Sahin, 2021; Azra, 2019; Tan, 2020). Historically, Islamic scholarly traditions relied

heavily on discursive learning practices in which students actively participated in discussions and critical examination of texts (Halstead, 2022; Abdullah, 2022; Sahin, 2021). Therefore, the use of discussion-based learning strategies in this study can be interpreted as a contemporary adaptation of classical Islamic pedagogical methods (Tan, 2020; Sahin, 2021; Halstead, 2022). These findings support the argument that Islamic education possesses strong epistemological foundations that are compatible with modern student-centered learning paradigms (Abdullah, 2022; Tan, 2020; Azra, 2019). Consequently, the implementation of discussion-based learning in Fiqh instruction may enhance students' critical engagement with religious knowledge while maintaining the authenticity of Islamic educational traditions (Sahin, 2021; Halstead, 2022; Tan, 2020).

The integration of reflective learning activities observed in this study also demonstrates an important alignment between deep learning pedagogy and Islamic moral education. Reflection plays a central role in deep learning because it enables learners to internalize knowledge and connect conceptual understanding with personal experiences (Darling-Hammond et al., 2020; OECD, 2023; Schleicher, 2023). Similarly, Islamic educational philosophy emphasizes the importance of reflection (*muhasabah*) as a means of developing moral awareness and spiritual growth (Sahin, 2021; Tan, 2020; Abdullah, 2022). Through reflective learning activities, students are encouraged to evaluate their actions, values, and responsibilities in light of religious teachings (Halstead, 2022; Sahin, 2021; Tan, 2020). The findings of this study indicate that teachers intentionally incorporate reflective questioning to help students understand the practical relevance of Islamic jurisprudence in everyday life. This pedagogical practice reflects the integration of cognitive and moral dimensions of learning, which is central to Islamic educational philosophy (Azra, 2019; Sahin, 2021; Halstead, 2022). Therefore, reflective learning activities can serve as an effective pedagogical bridge between modern deep learning theory and the ethical objectives of Islamic education (Tan, 2020; Abdullah, 2022; Sahin, 2021).

Despite these positive developments, the study also reveals that teachers encounter several challenges in implementing deep learning pedagogy within the Independent Curriculum. Curriculum reform literature consistently highlights that teachers often experience difficulties translating pedagogical concepts into structured instructional practices (Fullan, 2020; Verger et al., 2021; Avidov-Ungar, 2023). These challenges frequently arise because teachers must simultaneously adapt to new pedagogical paradigms, redesign instructional materials, and manage classroom interactions in unfamiliar ways (Kelchtermans, 2022; Ostinelli & Crescentini, 2024; Nkundabakura et al., 2024). The findings of this study indicate that teachers understand the theoretical principles of deep learning but face difficulties integrating these principles systematically into lesson planning and teaching modules. This gap between conceptual understanding and pedagogical implementation is commonly observed in educational reforms that introduce innovative instructional approaches (Fullan, 2020; Schleicher, 2023; OECD, 2023). Consequently, the results highlight the need for sustained professional development programs that support teachers in translating theoretical concepts into effective classroom practices (Darling-Hammond et al., 2020; Kelchtermans, 2022; Nkundabakura et al., 2024). Addressing this challenge is essential for ensuring that curriculum reforms achieve their intended pedagogical impact within classroom environments (Fullan, 2020; Schleicher, 2023; OECD, 2023).

Another challenge identified in the findings relates to time constraints in implementing interactive learning activities. Deep learning pedagogy typically requires extended instructional time for collaborative discussions, case analysis, and reflective learning processes (Darling-Hammond et al., 2020; OECD, 2023; Voogt et al., 2022). However, teachers often face institutional constraints such as limited instructional hours and dense curriculum requirements that restrict the implementation of student-centered learning approaches (Verger et al., 2021; Avidov-Ungar, 2023; Ostinelli & Crescentini, 2024). These constraints were also observed in this study, where teachers occasionally returned to lecture-based explanations due to time limitations. This finding reflects broader challenges faced by teachers worldwide when implementing innovative pedagogical models within standardized curriculum structures (Schleicher, 2023; OECD, 2023; Fullan, 2020). In Islamic educational contexts, the challenge of balancing doctrinal content with interactive learning approaches can be particularly complex (Sahin, 2021; Tan, 2020; Halstead, 2022). Therefore, curriculum policies must provide sufficient flexibility to allow teachers to

implement deeper learning activities without compromising essential learning objectives (Schleicher, 2023; Darling-Hammond et al., 2020; OECD, 2023).

The findings also highlight the importance of pedagogical competence in supporting the implementation of deep learning pedagogy in madrasah education. Research consistently demonstrates that teacher competence is one of the most influential factors affecting the success of educational reforms (Darling-Hammond et al., 2020; Kelchtermans, 2022; Nkundabakura et al., 2024). Teachers who possess strong pedagogical knowledge are more capable of designing learning environments that encourage critical thinking and conceptual understanding (Voogt et al., 2022; OECD, 2023; Schleicher, 2023). In Islamic education, pedagogical competence must also be accompanied by moral and spiritual awareness because teachers function as role models for students' ethical development (Sahin, 2021; Halstead, 2022; Tan, 2020). This dual responsibility distinguishes Islamic education from purely secular educational systems (Abdullah, 2022; Azra, 2019; Sahin, 2021). Therefore, strengthening pedagogical competence among madrasah teachers requires an integrated approach that combines modern educational training with Islamic ethical values (Tan, 2020; Halstead, 2022; Abdullah, 2022). Such integration may enhance the effectiveness of deep learning pedagogy in Islamic educational settings (Sahin, 2021; Azra, 2019; Tan, 2020).

Another important contribution of this study lies in its examination of deep learning pedagogy within the context of Islamic religious education. Most existing research on deep learning focuses on general education or STEM disciplines rather than religious education contexts (Darling-Hammond et al., 2020; Voogt et al., 2022; OECD, 2023). Consequently, there is limited empirical evidence regarding how deep learning principles are interpreted and implemented within Islamic educational environments (Sahin, 2021; Tan, 2020; Abdullah, 2022). By examining Fiqh instruction in madrasah education, this study provides new insights into how global pedagogical innovations can be adapted to religious learning contexts. The findings suggest that deep learning pedagogy can support the development of critical and contextual understanding of Islamic jurisprudence (Sahin, 2021; Tan, 2020; Halstead, 2022). Such pedagogical integration may contribute to the modernization of Islamic education while preserving its ethical and intellectual foundations (Azra, 2019; Abdullah, 2022; Sahin, 2021). Therefore, this research expands the scope of deep learning studies by incorporating religious education perspectives (Darling-Hammond et al., 2020; Tan, 2020; Sahin, 2021).

The novelty of this study lies in its integrative approach that connects deep learning pedagogy with Islamic educational philosophy. Previous studies have generally treated these two domains as separate fields of inquiry (Sahin, 2021; Tan, 2020; Abdullah, 2022). However, the findings of this study demonstrate that deep learning principles share significant conceptual similarities with Islamic pedagogical traditions that emphasize reflective thinking, moral reasoning, and contextual understanding of knowledge (Azra, 2019; Halstead, 2022; Sahin, 2021). By highlighting these connections, the study offers a new perspective on how modern educational innovations can be harmonized with Islamic intellectual heritage. This integrative perspective represents an important theoretical contribution to the field of Islamic education studies (Tan, 2020; Abdullah, 2022; Sahin, 2021). Furthermore, the study provides empirical evidence showing that madrasah teachers are capable of adapting global pedagogical frameworks to local religious education contexts. Such adaptation demonstrates the dynamic and evolving nature of Islamic educational practice (Azra, 2019; Halstead, 2022; Sahin, 2021). Consequently, the study contributes to ongoing discussions about the modernization of Islamic education in the contemporary era (Tan, 2020; Abdullah, 2022; Sahin, 2021).

The findings also have important implications for teacher professional development programs in madrasah education. Research indicates that effective teacher development programs must address both conceptual understanding and practical pedagogical skills (Darling-Hammond et al., 2020; Kelchtermans, 2022; Nkundabakura et al., 2024). In the context of the Independent Curriculum, teachers require structured training that helps them design instructional strategies aligned with deep learning principles (Schleicher, 2023; OECD, 2023; Fullan, 2020). Professional development programs should therefore focus on developing teachers' capacity to design inquiry-based learning activities, facilitate collaborative discussions, and integrate reflective learning practices (Voogt et al., 2022; Darling-Hammond et al., 2020; OECD,

2023). Additionally, training programs for madrasah teachers should incorporate Islamic pedagogical principles to ensure that modern teaching methods remain consistent with religious values (Sahin, 2021; Halstead, 2022; Tan, 2020). Such integrated professional development models may enhance teachers' readiness to implement deep learning pedagogy in religious education contexts (Abdullah, 2022; Tan, 2020; Sahin, 2021). Ultimately, strengthening teacher competence will play a crucial role in improving the quality of madrasah education in Indonesia (Azra, 2019; Sahin, 2021; Tan, 2020).

Finally, the findings of this study contribute to broader discussions about educational transformation in Islamic societies. Many Muslim-majority countries are currently seeking to modernize their educational systems while preserving their cultural and religious identities (Tan, 2020; Abdullah, 2022; Sahin, 2021). Integrating deep learning pedagogy into Islamic education represents one possible pathway for achieving this balance. By encouraging critical thinking and reflective learning, deep learning approaches can help students engage more deeply with religious knowledge while preparing them for contemporary societal challenges (Darling-Hammond et al., 2020; OECD, 2023; Schleicher, 2023). At the same time, grounding these pedagogical innovations in Islamic ethical values ensures that educational reform remains culturally and spiritually meaningful (Sahin, 2021; Halstead, 2022; Tan, 2020). Therefore, the integration of deep learning pedagogy within madrasah education may contribute to the development of a more holistic educational model that combines intellectual, moral, and spiritual development (Azra, 2019; Abdullah, 2022; Sahin, 2021). Such a model could serve as a valuable reference for future reforms in Islamic education systems worldwide (Tan, 2020; Sahin, 2021; Halstead, 2022).

## Conclusion

This study examined the readiness of Fiqh teachers at MTs Muslimat NU Palangka Raya in implementing the deep learning pedagogical approach within the Independent Curriculum. The findings indicate that teachers demonstrate a moderate level of readiness in applying deep learning principles in their instructional practices. Teachers generally possess an adequate conceptual understanding of deep learning, particularly regarding the importance of student-centered learning, reflective thinking, and active student engagement. This understanding is reflected in the use of pedagogical strategies such as discussion-based learning, problem-solving activities, and reflective questioning during Fiqh instruction. These approaches show that teachers are beginning to move from traditional lecture-based teaching toward more interactive learning environments that encourage students to develop deeper understanding of Islamic jurisprudence. However, the study also found that the implementation of deep learning pedagogy remains partially limited in practice.

The study also highlights an important conceptual connection between deep learning pedagogy and Islamic educational philosophy. Deep learning emphasizes reflective thinking, contextual understanding, and meaningful knowledge construction, which align closely with the principles of Islamic education that encourage intellectual inquiry (*tafakkur*), ethical reflection, and contextual interpretation of religious teachings. Therefore, the integration of deep learning pedagogy in Fiqh instruction offers a promising approach to strengthening both the intellectual and moral dimensions of Islamic education. By encouraging students to analyze real-life issues related to Islamic law, teachers can help learners develop a more contextual and critical understanding of religious knowledge.

This research also provides several contributions to the field of educational research. First, it expands the discussion of deep learning pedagogy by examining its application within Islamic religious education, particularly in madrasah institutions. Second, the study offers an integrative perspective that connects modern pedagogical innovation with Islamic educational values. Third, the research provides empirical insights into teacher readiness in implementing deep learning within the Independent Curriculum, which remains relatively underexplored in Indonesian madrasah education.

Despite these contributions, the study has several limitations. The research was conducted in a single madrasah and involved only three teachers, which may limit the generalizability of the findings to other educational contexts. In addition, the study primarily focuses on teachers'

perspectives and classroom practices without directly examining students' learning outcomes resulting from deep learning implementation.

Based on these findings, several recommendations can be proposed. Educational policymakers and madrasah administrators should strengthen teacher professional development programs, particularly training related to deep learning pedagogy and instructional design. Continuous mentoring and professional learning communities may help teachers develop structured lesson plans aligned with deep learning principles. Future research should involve a larger number of participants and multiple institutions to provide broader insights into deep learning implementation in Islamic education. Furthermore, future studies should explore the impact of deep learning pedagogy on students' critical thinking, ethical reasoning, and understanding of Islamic teachings.

## Declarations

### Author contribution statement

Contributions of the authors in this article: First author, contributed as concepts and drafters of the article, data analyzers and interpreters; Second author, as the drafter of the manuscript, collecting data, writing the manuscript and critically revising the article. Third author, as the drafter of the manuscript, collecting data and critically revising the article. All authors agree to take responsibility for all aspects of this work. Both authors contributed equally and approved the final version of the article for publication.

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### Data availability statement

The datasets generated and/or analysed during the current study are available from the corresponding author upon reasonable request.

### Declaration of interests statement

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

### Declaration of use artificial intelligence

The author uses generative AI in this paper for the data analysis process.

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