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Teachers' Challenges in Implementing Pedagogical Deep Learning Approaches in English Classrooms at Central Java Junior Islamic School

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Abstract. The implementation of pedagogical deep learning under Indonesia's Merdeka Curriculum presents unique challenges for English as a Foreign Language (EFL) teachers within Islamic secondary school (madrasah) contexts. This qualitative case study investigates the specific classroom challenges and adaptive teaching strategies of EFL educators implementing this approach at MTSN 2 Surakarta. Research data were gathered through semi-structured interviews, extensive classroom observations, and instructional document analysis, and subsequently analyzed using Braun and Clarke's thematic analysis framework. The findings reveal seven primary challenges: limited student vocabulary, low learning motivation, diverse student abilities, restricted instructional time, inadequate facilities, curriculum changes, and insufficient teacher readiness. To overcome these hurdles, teachers deployed adaptive strategies including project-based learning, peer teaching, technology integration, and contextualized higher-order thinking skills (HOTS) activities. This study underscores the complex interaction between madrasah institutional culture and curriculum reform, concluding that continuous professional development, robust institutional support, and contextualized pedagogical innovations are vital for sustainable classroom implementation.

Keywords: *deep learning; EFL teacher; madrasah; Merdeka Curriculum; institutional constraints*

Abstrak. Penerapan pembelajaran mendalam (deep learning) dalam Kurikulum Merdeka Indonesia menghadirkan tantangan unik bagi guru Bahasa Inggris sebagai Bahasa Asing (EFL) di sekolah menengah Islam (madrasah). Studi kasus kualitatif ini menyelidiki tantangan spesifik di kelas serta strategi pengajaran adaptif yang diterapkan oleh pendidik EFL yang menerapkan pendekatan ini di MTSN 2 Surakarta. Data penelitian dikumpulkan melalui wawancara semi-terstruktur, observasi kelas yang mendalam, dan analisis dokumen pengajaran, kemudian dianalisis menggunakan kerangka analisis tematik Braun dan Clarke. Temuan penelitian mengungkap tujuh tantangan utama: keterbatasan kosakata siswa, motivasi belajar yang rendah, kemampuan siswa yang beragam, waktu pengajaran yang terbatas, fasilitas yang tidak memadai, perubahan kurikulum, dan kesiapan guru yang kurang. Untuk mengatasi hambatan-hambatan ini, guru menerapkan strategi adaptif termasuk pembelajaran berbasis proyek, pengajaran antar teman sebaya, integrasi teknologi, dan kegiatan keterampilan berpikir tingkat tinggi (HOTS) yang dikontekstualisasikan. Studi ini menggarisbawahi interaksi kompleks antara budaya kelembagaan madrasah dan reformasi kurikulum, dengan kesimpulan bahwa pengembangan profesional berkelanjutan, dukungan kelembagaan yang kuat, dan inovasi pedagogis yang dikontekstualisasikan sangat penting untuk implementasi kelas yang berkelanjutan.

Kata kunci: *pembelajaran mendalam, guru bahasa Inggris, kurikulum Merdeka, hambatan institusional*

INTRODUCTION

Indonesia's educational reform through the implementation of the Merdeka Curriculum *(Kurikulum Merdeka)* has encouraged schools and teachers to adopt more student-centered and transformative learning approaches. The curriculum, formally regulated through the Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi *(Kemendikbudristek)*, emphasizes the development of learners' critical thinking, creativity, collaboration, communication skills, and character formation to meet the demands of twenty-first-century education. One of the key pedagogical orientations promoted in the curriculum is Pembelajaran Mendalam or pedagogical deep learning, which focuses on meaningful understanding, reflective thinking, contextual learning, and the active construction of knowledge through authentic experiences (Kemendikbudristek, 2024).

In this study, pedagogical deep learning refers to an instructional approach that encourages learners to actively engage in inquiry, collaboration, reflection, and higher-order thinking processes to achieve meaningful and transferable understanding. This concept differs significantly from "deep learning" in artificial intelligence and machine learning, which refers to computational neural network systems. It is also distinct from the classic concept of deep versus surface learning proposed by Marton and Säljö (1976), which primarily examines students' cognitive orientations toward learning tasks. Instead, pedagogical deep learning in the context of the Merdeka Curriculum emphasizes meaningful, student-centered, and contextualized learning practices that promote active participation and critical inquiry in classroom settings.

Within English as a Foreign Language (EFL) education, pedagogical deep learning plays a crucial role in developing students' communication competence, creativity, problem-solving abilities, and higher-order thinking skills (HOTS). English learning under the Merdeka Curriculum is expected not only to improve linguistic competence but also to support students in becoming active, reflective, and collaborative learners. However, the practical implementation of pedagogical deep learning in Indonesian EFL classrooms remains challenging due to various pedagogical, institutional, and contextual constraints.

Previous studies have identified several difficulties related to the implementation of pedagogical deep learning in Indonesian educational contexts. Mukhoyaroh et al. (2025) reported that teachers experienced difficulties designing lesson plans aligned with deep learning principles and adapting instruction to students' characteristics. Riani and Sujarwati (2025) found that many English teachers lacked sufficient understanding of pedagogical deep learning and required additional professional development. Arianti et al. (2025) emphasized that inadequate facilities and limited institutional support hindered the implementation of innovative learning approaches. Similarly, Fitrah et al. (2025) highlighted the importance of technological readiness and twenty-first-century competencies in supporting deep learning practices. Prihantini et al. (2025) further argued that teachers often struggle to integrate critical thinking and reflective learning activities into classroom instruction.

Comparable findings have also been reported in developing educational contexts outside Indonesia. Weng et al. (2022) found that the implementation of deep learning pedagogies in language classrooms was constrained by limited instructional time, uneven student participation, and insufficient teacher preparation. Selwyn and Heffernan (2021) identified technological disparities and teachers' limited digital literacy as significant barriers to innovative classroom practices. Furthermore, Lomba-

Portela et al. (2022) explained that resistance to educational change frequently emerges when curriculum reforms are introduced without adequate institutional support and professional training. These studies demonstrate that the implementation of pedagogical deep learning is influenced not only by classroom factors but also by broader institutional and sociocultural conditions.

Theoretically, pedagogical deep learning is closely related to constructivist and sociocultural learning theories. Constructivism, particularly as proposed by Piaget, emphasizes that learners actively construct knowledge through interaction with their environment and reflective cognitive processes. Meanwhile, Vygotsky's sociocultural theory (1978) highlights the importance of social interaction, scaffolding, and collaborative learning within the Zone of Proximal Development (ZPD). In the context of pedagogical deep learning, these theories explain how meaningful learning occurs through active engagement, dialogue, collaboration, and contextualized experiences. In addition, differentiated instruction theory suggests that teachers should adapt instructional strategies according to students' diverse abilities, readiness, and learning needs. These theoretical perspectives provide the conceptual basis for understanding the challenges faced by teachers when implementing pedagogical deep learning in heterogeneous EFL classrooms.

Though much attention has been given to deep learning, there is still a lack of studies that specifically look into the issues encountered by teachers in applying deep learning to students in Indonesia's Islamic junior high school institutions. This study thus seeks to examine the issues facing English language teachers in the application of deep learning in MTSN 2 Surakarta. Based on these issues, this study aims to investigate the challenges faced by English teachers in implementing pedagogical deep learning in English classrooms at MTSN 2 Surakarta and the strategies they employ to overcome those challenges. The study addresses the following research problems: 1. What are the challenges faced by teachers applying deep learning in the classrooms? 2. How do teachers" overcome challenges faced by teachers applying deep learning in the classrooms?

The conceptual framework of this study illustrates the relationship between curriculum policy, pedagogical implementation, teacher challenges, adaptive teaching strategies, and learning outcomes. Despite the growing number of studies concerning pedagogical deep learning and curriculum reform, research specifically focusing on Islamic secondary school contexts remains limited. While previous studies have examined teacher readiness, instructional strategies, and technological challenges in general educational settings, no study has comprehensively investigated the implementation challenges of pedagogical deep learning within the specific context of Islamic secondary schools (madrasah). Madrasah institutions possess distinctive institutional cultures, curricular structures, and educational priorities that may influence the implementation of student-centered pedagogies differently from general schools.

Therefore, this study aims to investigate the challenges faced by English teachers in implementing pedagogical deep learning at MTSN 2 Surakarta and to explore the strategies employed to overcome those challenges. The findings are expected to contribute theoretically to the literature on pedagogical deep learning and practically to support educators, policymakers, and school institutions in strengthening the implementation of meaningful and student-centered English language learning in Indonesian Islamic schools.

METHODS

This study employed a qualitative case study design to investigate the challenges encountered by English teachers in implementing pedagogical deep learning (*Pembelajaran Mendalam)* in English as a Foreign Language (EFL) classrooms at MTSN 2 Surakarta. A case study approach was considered appropriate because the study aimed to explore a contemporary educational phenomenon within its real-life context in depth and holistically (Yin, 2018). In line with Stake (1995), the case in this study was defined as the implementation of pedagogical deep learning practices in English classrooms within the context of an Islamic secondary school (madrasah). The study specifically focused on how teachers experienced curriculum implementation challenges and adapted their instructional practices in response to those challenges.

The participants consisted of two English teachers selected through purposive sampling. The participants were chosen based on several criteria, including their teaching experience, active involvement in implementing the Merdeka Curriculum, and experience in applying pedagogical deep learning approaches in English classrooms. Expanding the participants to two teachers enabled richer data collection and strengthened the credibility of the findings through cross-case comparison.

The study was conducted at MTSN 2 Surakarta during the 2025/2026 academic year. Data were collected using three techniques: semi-structured interviews, classroom observations, and document analysis. Semi-structured interviews were conducted in four sessions, with each interview lasting approximately 45–60 minutes. The interviews explored teachers' perceptions, instructional experiences, challenges, and strategies related to the implementation of pedagogical deep learning. Classroom observations were conducted six times over a four-week period to examine classroom interaction patterns, student participation, teaching strategies, and learning activities. Observation notes were used to capture instructional practices and classroom dynamics during the learning process. In addition, document analysis was conducted on teachers' lesson plans, teaching modules, assessment tasks, and instructional materials to support and triangulate the findings from interviews and observations.

The collected data were analyzed using thematic analysis following Braun and Clarke's (2006) six-phase framework. The first phase involved familiarization with the data through repeated reading of interview transcripts, observation notes, and documents. The second phase focused on generating initial codes by identifying meaningful patterns related to teacher challenges and instructional strategies. The third phase involved searching for broader themes by grouping similar codes into thematic categories. In the fourth phase, the identified themes were reviewed and refined to ensure coherence and relevance to the research questions. The fifth phase involved defining and naming the themes to clearly represent the findings. Finally, the sixth phase consisted of producing the report by interpreting and presenting the findings in relation to existing theories and previous studies.

To ensure the trustworthiness of the study, several strategies were employed following Lincoln and Guba's qualitative research criteria (1985). Credibility was established through methodological triangulation by comparing data obtained from interviews, classroom observations, and document analysis. Member checking was also conducted by allowing participants to review interview summaries and preliminary interpretations to confirm accuracy. Transferability was strengthened through detailed descriptions of the research context, participants, and procedures. Dependability was ensured by maintaining clear documentation of the data collection and analysis

processes, while confirmability was supported through reflective note-taking and systematic coding procedures.

Ethical considerations were also addressed throughout the research process. Prior to data collection, the researcher obtained permission from the school administration and informed consent from all participants. Participants were informed about the purpose of the study, the voluntary nature of participation, and their right to withdraw at any time. To maintain confidentiality and anonymity, participants' identities were replaced with pseudonyms in all research reports and documentation.

FINDINGS

The findings of this study are presented according to the research questions guiding the investigation. Data were obtained from semi-structured interviews with two English teachers (T1 and T2), classroom observations, and document analysis consisting of lesson plans, teaching modules, and assessment tasks. The triangulation of these data sources strengthened the credibility of the findings and provided a deeper understanding of the implementation of pedagogical deep learning (Pembelajaran Mendalam) in English classrooms at MTSN 2 Surakarta.

Navigating the Obstacles: Multi-Faceted Challenges in Implementing Pedagogical Deep Learning

1. Limited Student Vocabulary Mastery

The most frequently identified challenge concerned students' limited vocabulary mastery. Both participants explained that students often struggled to express ideas in English during discussions, presentations, and collaborative learning activities. T1 explained: *"Tantangan utama tetap ada di penguasaan kosa kata. Ketika mereka harus berbicara, mereka harus memiliki kosa kata yang cukup. Kalau mereka tidak tahu vocabulary tertentu, mereka kesulitan menyampaikan ide."* (T1 Interview) Similarly, T2 stated: *"Students often understand the topic, but they cannot explain their opinions because they do not have enough English vocabulary."* (T2 Interview) This finding was corroborated by classroom observations showing that many students switched to Indonesian during group discussions and brainstorming sessions. Observation notes also indicated that only a small number of students actively participated in oral discussions, while others remained silent or relied on peers for translation assistance. In addition, document analysis revealed that teachers frequently included vocabulary drilling activities in lesson plans before discussion-based tasks. The findings suggest that vocabulary limitations significantly hinder students' participation in deep learning activities that require critical discussion, reflection, and communication.

2. Limited Instructional Time

Another major challenge involved insufficient instructional time. Teachers reported that the reduction of English instructional hours under the current curriculum limited opportunities for implementing meaningful and reflective learning activities. T1 stated: "*Kalau dulu bahasa Inggris empat jam, sekarang hanya tiga jam. Padahal deep learning membutuhkan waktu panjang untuk diskusi, presentasi, dan refleksi."* (T1 Interview) T2 similarly explained: *"Many activities cannot be completed in one meeting because students need more time to think, collaborate, and present their work."* (T2 Interview) Observation data supported these statements. During classroom observations, several activities such as presentations and group reflections had to be postponed to the following meetings because of time limitations. Lesson plan documents also showed

that many learning objectives were distributed across multiple sessions due to limited classroom time allocation.

3. **Curriculum Changes and Limited Teacher Readiness**

Teachers also identified curriculum reform and insufficient professional preparation as significant barriers to implementing pedagogical deep learning effectively. T1 explained: *"Kurikulum selalu berubah, tetapi pelatihannya belum maksimal. Kadang guru diminta langsung menerapkan tanpa contoh yang jelas."* (T1 Interview) In another interview excerpt, T1 added*: "Kadang persepsi guru tentang deep learning berbeda-beda karena belum ada arahan yang benar-benar detail."* (T1 Interview) Similarly, T2 noted:*"Teachers still need more training about how to design deep learning activities and HOTS-based assessment."* (T2 Interview) Document analysis showed variation in lesson plan structures and classroom activities among teachers, indicating differences in understanding regarding pedagogical deep learning implementation. Observation findings further demonstrated that some classroom practices remained teacher-centered despite curriculum expectations emphasizing student-centered learning.

4. **Inadequate Facilities and Learning Resources**

Both participants emphasized that limited educational facilities affected the implementation of pedagogical deep learning activities, particularly those involving listening practice and digital learning. T1 stated: *"Lab bahasa sebenarnya ada, tetapi belum maksimal penggunaannya karena fasilitas seperti headset dan multimedia belum lengkap."* (T1 Interview) T2 similarly explained: "*Technology-based learning is difficult when internet access and digital devices are limited."* (T2 Interview) This finding was confirmed through classroom observations showing limited use of multimedia equipment during listening and collaborative activities. Document analysis also revealed that several lesson plans included digital learning activities that could not be fully implemented because of facility constraints.

5. **Low Student Motivation and Passive Learning Culture**

Teachers also reported that students often lacked confidence and motivation to participate actively in English learning activities. T1 explained: *"Tantangan khususnya adalah bagaimana membuat siswa merasa bahwa belajar bahasa Inggris itu menyenangkan."* (T1 Interview). T2 added: *"At the beginning, students were reluctant to answer questions or express opinions in English because they were afraid of making mistakes."* (T2 Interview) Observation data demonstrated that only a few students actively participated during brainstorming sessions, while many students waited for teacher instructions. This finding indicates that students were still accustomed to teacher-centered learning practices.

6. **Diverse Student Abilities**

Differences in students' English proficiency levels created additional classroom management difficulties. T1 stated: *"Kondisi kemampuan siswa berbeda-beda. Ada yang cepat memahami, tetapi ada juga yang masih sangat kesulitan."* (T1 Interview) T2 similarly explained:*"Advanced students tend to dominate discussions, while weaker students become passive participants."* (T2 Interview) This finding was supported by classroom observations indicating unequal participation during collaborative tasks.

Document analysis also showed that teachers modified instructional materials and learning tasks based on classroom proficiency differences.

7. **Weak Communication and Collaboration Skills**

Another important challenge involved students' limited communication and presentation abilities. T1 explained: *"Yang paling sulit dikembangkan adalah keterampilan mempresentasikan ide dan berbicara secara langsung."* (T1 Interview) T2 added: *"Students are still dependent on written notes when presenting their ideas."* (T2 Interview) Observation findings showed that many students relied heavily on scripts during presentations and struggled to elaborate ideas spontaneously. This issue limited the effectiveness of reflective and collaborative deep learning activities.

Orchestrating Resilience: Adaptive Teaching Strategies and Pedagogical Innovations

1. **Vocabulary Enrichment Programs**

To address vocabulary limitations, teachers implemented vocabulary drilling and additional language practice outside regular classroom hours. T1 explained*: "Kami menambahkan jam khusus vocabulary pada sore hari untuk mendukung pembelajaran utama di kelas."* (T1 Interview) Observation data showed that teachers regularly introduced vocabulary activities before discussion and presentation sessions. Lesson plans also included vocabulary lists and contextual language exercises.

2. **Project-Based Learning**

Teachers utilized project-based learning to provide students with meaningful and contextual learning experiences. T1 stated: *"Untuk narrative text, siswa membuat video telling story dan mengunggahnya melalui Google Drive."* (T1 Interview) Document analysis confirmed that project assignments such as storytelling videos, advertisements, and report presentations were integrated into classroom assessment activities. Observation findings also showed increased student participation during collaborative project work.

3. **Peer Teaching and Collaborative Learning**

Peer teaching strategies were implemented to support students with lower English proficiency. T1 explained: *"Kami menunjuk beberapa siswa menjadi tutor sebaya untuk membantu teman-temannya memahami materi."* (T1 Interview) Observation notes demonstrated that peer tutoring encouraged more active interaction among students, particularly during grammar and speaking activities.

4. **Technology Integration**

Teachers integrated technology and digital platforms into learning activities to increase student engagement. T1 stated: *"Siswa diperbolehkan menggunakan aplikasi AI dan media digital untuk membuat proyek pembelajaran."* (T1 Interview) Document analysis showed that teachers incorporated Google Drive, multimedia presentations, and AI-supported activities into lesson planning. Observation findings further revealed that students demonstrated higher engagement during technology-assisted learning activities.

5. **HOTS-Based and Contextual Learning Activities**

Teachers also developed HOTS-oriented activities connected to students' real-life experiences. T1 explained: *"Kami menggunakan topik yang dekat dengan kehidupan siswa, seperti banjir, media sosial, atau promosi usaha."* (T1 Interview) T2 similarly stated*: "Students become more interested when learning activities are related to their*

daily experiences." (T2 Interview) Observation data indicated that students participated more actively during contextual discussions involving real social issues and practical problem-solving activities.

6. **Extracurricular Programs**

Extracurricular activities were utilized to strengthen students' communication skills and confidence. T1 explained*: "Kami mengadakan English camp, storytelling competition, speech, role play, dan news casting untuk melatih kemampuan komunikasi siswa."* (T1 Interview) Observation findings from extracurricular activities showed that students demonstrated greater confidence and fluency in less formal learning environments. This table is a summary all the research question:

Research Question	Main Themes	Evidence Sources
RQ 1: Teachers Challenges	Limited vocabulary, limited time, curriculum changes, inadequate facilities, low motivation, diverse abilities, weak communication skills	Interviews, observations, documents
RQ 2: Teachers Strategies	Vocabulary programs, project-based learning, peer teaching, technology integration, HOTS activities, extracurricular programs	Interviews, observations, lesson plans

DISCUSSION

The findings of this study demonstrate that the implementation of pedagogical deep learning (Pembelajaran Mendalam) in English as a Foreign Language (EFL) classrooms at MTSN 2 Surakarta is influenced by interconnected pedagogical, institutional, and contextual factors. The discussion below interprets each finding theoretically, compares it with previous studies, and explains how the madrasah context shapes the implementation of deep learning practices.

Limited Vocabulary Mastery and Student Participation

One of the most significant challenges identified in this study was students' limited English vocabulary mastery. This issue occurred because deep learning activities require students to actively communicate ideas, participate in discussions, express opinions, and engage in collaborative problem-solving tasks. However, many students lacked sufficient vocabulary to express their thoughts confidently in English. Consequently, students often shifted to Indonesian during classroom discussions or became passive participants in collaborative activities. From a sociocultural perspective, Vygotsky (1978) emphasized that language functions as a primary tool for cognitive development and social interaction. In deep learning environments, students are expected to construct knowledge collaboratively through communication and interaction. Therefore, inadequate vocabulary mastery restricts students' ability to participate meaningfully in knowledge construction processes. Similarly, constructivist theory argues that learners develop understanding actively through discussion, reflection, and interaction with others. Without adequate linguistic competence, students experience difficulties engaging in these higher-order learning processes. This finding is consistent with previous studies conducted by Benu et al. (2025), Mukhoyaroh et al. (2025), and

Riani and Sujarwati (2025), which reported that language proficiency limitations hinder the implementation of meaningful and student-centered EFL learning activities. However, this study extends previous findings by demonstrating that vocabulary limitations in the madrasah context are further intensified by limited English exposure outside the classroom and the prioritization of multiple curricular subjects, including religious studies.

Limited Instructional Time and Curriculum Demands

Limited instructional time emerged as another major challenge in implementing pedagogical deep learning. Teachers explained that deep learning activities such as discussions, project-based learning, presentations, reflection, and HOTS-based tasks require extended classroom interaction. However, the current curriculum structure allocates only three hours of English instruction per week, making it difficult for teachers to complete meaningful learning cycles effectively. This finding can be explained through constructivist learning theory, which emphasizes that meaningful learning occurs through exploration, reflection, and active engagement over time. Deep learning activities cannot be implemented effectively through short and fragmented instructional sessions because students require opportunities to process information, interact with peers, and develop conceptual understanding gradually. The findings align with Arianti et al. (2025), Prihantini et al. (2025), and Selwyn and Heffernan (2021), who found that limited instructional time and curriculum pressure frequently reduce opportunities for implementing student-centered learning approaches. Nevertheless, the present study reveals a contextual difference within the madrasah setting. In addition to general academic demands, madrasah institutions also allocate substantial instructional time for religious subjects and institutional activities. As a result, English learning receives more limited classroom allocation compared to general secondary schools. Furthermore, limited instructional time interacted with other challenges, particularly diverse student abilities. Teachers reported difficulties providing individualized scaffolding because classroom activities needed to be completed quickly. This condition reduced opportunities for differentiated instruction and meaningful reflection, which are essential components of pedagogical deep learning.

Curriculum Changes and Limited Teacher Readiness

The findings also indicate that frequent curriculum reform and insufficient teacher preparation contributed significantly to implementation difficulties. Teachers experienced uncertainty regarding how pedagogical deep learning should be translated into classroom instruction, assessment design, and learning activities. Although the Merdeka Curriculum promotes student-centered and meaningful learning, many teachers reported receiving limited practical training regarding implementation procedures. This finding is supported by educational change theory, which argues that teachers often experience confusion and resistance when educational reforms are introduced without adequate institutional support and professional development opportunities (Lomba-Portela et al., 2022). Teachers require sustained guidance, modeling, and collaborative learning opportunities to adapt successfully to curriculum changes. The findings are consistent with studies conducted by Fitrah et al. (2025), Riani and Sujarwati (2025), and Sudirman et al. (2025), which found that many teachers in Indonesia were not fully prepared to implement deep learning pedagogy. However, this study contributes additional contextual insight by demonstrating that teachers in madrasah institutions often rely on self-directed interpretation because training

opportunities are unevenly distributed and practical implementation examples remain limited. Theoretically, this issue can also be explained through constructivist principles. Teachers themselves function as learners who need opportunities to construct pedagogical understanding through experience, collaboration, and reflection. Without adequate professional scaffolding, teachers may revert to traditional teacher-centered instructional practices despite curriculum expectations emphasizing student-centered learning.

Inadequate Facilities and Learning Resources

Inadequate facilities and limited technological resources also influenced the implementation of pedagogical deep learning. Teachers explained that language laboratories, multimedia equipment, internet access, and digital learning tools were not fully available or optimally utilized. Consequently, several interactive learning activities, particularly listening and collaborative multimedia projects, could not be implemented effectively. This finding corresponds with Arianti et al. (2025), Selwyn and Heffernan (2021), and Hermita et al. (2025), who argued that technological infrastructure significantly affects teachers' ability to implement innovative pedagogical approaches. Deep learning approaches often rely on digital technologies to facilitate collaboration, independent learning, and contextual exploration. Therefore, insufficient facilities restrict students' opportunities to engage in authentic and technology-supported learning experiences. The findings additionally reveal the interrelationship between infrastructure limitations and student motivation. Teachers reported that students became more engaged when multimedia resources and digital platforms were used in learning activities. However, inadequate facilities reduced the variety and attractiveness of classroom activities, contributing indirectly to students' passive learning behavior.

Low Student Motivation and Passive Learning Culture

Low student motivation and passive classroom participation emerged as important barriers to implementing pedagogical deep learning. Many students initially hesitated to participate in discussions, answer questions, or present ideas because they feared making mistakes in English. Observation findings further demonstrated that students were accustomed to waiting for teacher instructions rather than independently exploring information. This finding can be interpreted through sociocultural theory, which emphasizes that learning behavior is shaped by social and cultural practices. In many Indonesian classrooms, including madrasah contexts, traditional teacher-centered learning remains dominant. Students are often positioned as passive recipients of knowledge rather than active participants in collaborative inquiry. Consequently, transitioning toward pedagogical deep learning requires significant cultural adjustment for both teachers and students. This result supports findings from Sari (2025), Weng et al. (2022), and Prihantoro et al. (2025), which reported that students frequently experience difficulties adapting to reflective and collaborative learning environments. However, the current study highlights that passive learning culture in madrasah institutions may be reinforced by hierarchical educational norms emphasizing obedience, discipline, and teacher authority. While these values contribute positively to classroom order, they may simultaneously limit opportunities for student autonomy and exploratory learning.

Diverse Student Abilities and Collaborative Learning Difficulties

Differences in students' English proficiency levels further complicated classroom management and collaborative learning implementation. Teachers explained that higher-achieving students tended to dominate discussions, while lower-achieving students remained passive or dependent on peers. This finding strongly reflects Vygotsky's concept of the Zone of Proximal Development (ZPD). According to sociocultural theory, students learn effectively when appropriate scaffolding is provided within their developmental range. However, in mixed-ability classrooms, teachers face difficulties balancing instructional support for students with significantly different proficiency levels. As a result, some students receive insufficient support while others are not adequately challenged. The findings align with Prihantini et al. (2025), Benu et al. (2025), and Joyce and Calhoun (2024), who emphasized the importance of differentiated instruction in deep learning environments. However, this study demonstrates that differentiated instruction becomes more difficult when combined with limited instructional time and large classroom sizes. Thus, challenges in deep learning implementation should not be viewed independently because they continuously interact and reinforce one another.

Weak Communication Skills and Student Dependence

Students' limited communication skills and dependence on teachers also emerged as significant findings. Teachers observed that students often relied heavily on written notes during presentations and struggled to communicate ideas spontaneously. Many students waited for direct teacher explanations instead of independently exploring learning materials. This phenomenon reflects the long-term influence of traditional instructional practices that prioritize cognitive achievement and memorization over communication and critical thinking skills. From a constructivist perspective, meaningful learning requires active participation, reflection, and authentic interaction. However, students who have been socialized within teacher-centered educational environments may experience difficulty adapting to collaborative and inquiry-based learning approaches. The findings are consistent with Sudarmono (2025), Weng et al. (2022), and Benu et al. (2025), which found that communication skills remain a major challenge in implementing higher-order learning approaches in EFL contexts. Nevertheless, this study adds contextual depth by showing how communication difficulties are shaped not only by linguistic limitations but also by institutional learning culture and prior educational experiences.

Contextual Factors of the Madrasah Setting

One important contribution of this study concerns the influence of the madrasah institutional context on pedagogical deep learning implementation. Unlike general secondary schools, madrasah institutions integrate religious and general academic subjects simultaneously. This institutional structure affects classroom scheduling, instructional priorities, and curriculum implementation practices. The madrasah context also emphasizes discipline, respect for authority, and moral education. While these institutional values contribute positively to character formation and classroom order, they may also shape students' learning behavior toward greater dependence on teacher guidance. Consequently, implementing student-centered and inquiry-based learning approaches requires both pedagogical and cultural adaptation. In addition, extracurricular religious and institutional activities frequently reduce available classroom time for English instruction. This contextual factor distinguishes the findings

of the present study from previous research conducted primarily in general school settings.

Novelty of the Study

This study extends existing literature on pedagogical deep learning implementation in several important ways. First, while previous studies have mainly focused on teacher readiness, curriculum implementation, or technology integration in general educational contexts, this study specifically examines pedagogical deep learning within Islamic secondary school (madrasah) settings, which remain underexplored in EFL research. Second, this study demonstrates that challenges in implementing pedagogical deep learning are not isolated issues but interconnected phenomena shaped by institutional culture, curriculum reform, classroom realities, and sociocultural learning practices. The findings refine existing understanding by showing how limited instructional time, mixed student abilities, inadequate facilities, and passive learning culture interact simultaneously to influence classroom implementation.

Finally, this study contributes theoretically by operationalizing constructivist and sociocultural perspectives in explaining EFL deep learning implementation within the Indonesian madrasah context. The findings highlight the importance of contextualized pedagogical strategies, institutional support, and culturally responsive curriculum implementation for strengthening meaningful learning practices in Islamic secondary schools**.**

CONCLUSION

This study investigated the challenges experienced by English teachers in implementing pedagogical deep learning (Pembelajaran Mendalam) in EFL classrooms at MTSN 2 Surakarta under the Merdeka Curriculum. The findings revealed several interconnected challenges affecting the implementation of meaningful and student-centered learning practices, including limited student vocabulary mastery, low learning motivation, diverse learner abilities, insufficient instructional time, inadequate educational facilities, curriculum changes, and limited teacher readiness. Additional issues such as students' dependence on teachers and weak communication skills further complicated the implementation of collaborative and reflective learning activities.

To address these challenges, teachers implemented various adaptive instructional strategies, including vocabulary enrichment programs, project-based learning, peer teaching, contextual learning activities, technology integration, HOTS-based instruction, extracurricular English programs, and differentiated learning approaches. These strategies demonstrate teachers' efforts to create more meaningful, collaborative, and contextualized learning experiences despite institutional and pedagogical constraints. Theoretically, this study contributes to the growing body of literature on pedagogical deep learning implementation by extending constructivist and sociocultural perspectives within the context of Indonesian Islamic secondary schools (madrasah). The findings demonstrate that deep learning implementation is not solely determined by instructional techniques but is also shaped by institutional culture, curriculum structure, student learning habits, and sociocultural classroom interaction patterns. Furthermore, the study refines existing understanding by showing how interconnected challenges such as limited time, mixed student abilities, and passive learning culture simultaneously influence teachers' capacity to facilitate meaningful learning experiences.

Practically, the findings provide several implications for teachers, school administrators, and policymakers. For teachers, the study highlights the importance of flexible instructional strategies, differentiated instruction, collaborative learning, and contextualized language activities to support pedagogical deep learning implementation. For school administrators, the findings emphasize the need to strengthen educational facilities, technological infrastructure, and professional development opportunities for teachers. Meanwhile, policymakers should consider providing more consistent curriculum guidance, continuous teacher training programs, and sufficient instructional time allocation to support meaningful EFL learning under the Merdeka Curriculum.

Despite its contributions, this study has several limitations. First, the study was conducted in a single madrasah setting, which limits the generalizability of the findings to broader educational contexts. Second, the participant sample size was relatively small, involving only two English teachers. Third, as a qualitative case study, the findings were influenced by contextual interpretation and potential researcher subjectivity during data analysis and interpretation. Therefore, the findings should be understood within the specific institutional and cultural context of the study.

Future research is recommended to expand the scope of investigation by conducting multi-site comparative studies involving different types of schools and educational regions. Longitudinal studies are also needed to examine the long-term impact of pedagogical deep learning implementation on students' language development and critical thinking skills. In addition, future researchers may explore students' perspectives regarding deep learning experiences and employ quantitative or mixed-method approaches to measure the effectiveness of pedagogical deep learning strategies more systematically.

References

Arianti, C. A. L. E., Sama', S., & Dewi, I. Y. M. (2025). Navigating deep learning pedagogy in rural classrooms: A qualitative study on teacher readiness and innovation in Indonesian elementary schools. *Journal Evaluation in Education (JEE)*, *6*(3), 725–736. https://doi.org/10.37251/jee.v6i3.1775

Benu, N. N., Beeh, N., & Nenotek, S. A. (2025). Implementing deep learning in the EFL classroom: Strategies for fostering mindful, meaningful, and joyful language learning. *LedTure: Journal on Language, Education, Literature and Culture*, *3*(1), 70–85. https://doi.org/10.33323/l.v3i1.64

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Chosya, J. A., & Takiddin, T. (2025). Developing deep learning-based worksheets to improve Higher-Order Thinking Skills in elementary Social Studies. *Journal of Deep Learning*, *1*(1), 37–46. https://doi.org/10.23917/jdl.v1i1.11156

Feri, M., Ismiati, N., Al-nur, W. R., & Akbar, F. N. (2025). Implementing deep learning approaches in primary education: A literature review. *Jurnal Varidika*, *37*(1), 178–194. https://doi.org/10.23917/varidika.v37i2.12151

Fitrah, M., Sofroniou, A., Yarmanetti, N., Ismail, I. H., Anggraini, H., Nissa, I. C., Widyaningrum, B., Khotijah, I., Kurniawan, P. D., & Setiawan, D. (2025). Are teachers ready to adopt deep learning pedagogy? The role of technology and 21st-century competencies amid educational policy reform. *Education Sciences*, *15*(10), Article 1344, 1–19. https://doi.org/10.3390/educsci15101344

Fullan, M., Quinn, J., & McEachen, J. J. (2018). *Deep learning: Engage the world*

change the world. Corwin Press.

Hermita, N., Barokah, R. G. S., Putra, M. J. A., Suroyo, S., & Asiah, N. (2025). Deep learning pedagogy through STEM coding for elementary teachers: Strengthening computational thinking and curriculum implementation readiness. *Kreasi: Jurnal Inovasi Dan Pengabdian Kepada Masyarakat*, *5*(3), 868–886. https://doi.org/10.58218/kreasi.v5i3.2004

Hidayani, E. F., Prayitno, H. J., & Handayani, T. (2025). Deep learning: Implementation and impact in Islamic junior high schools. *Journal of Deep Learning*, *1*(1), 25–35.

Joyce, B., & Calhoun, E. (2024). *Models of teaching* (10th ed.). Routledge. https://doi.org/10.4324/9781003455370

Kasi, Y. F., Bai, D. V., Novia, N., Deporos, S. R. C., & Mababaya, A. D. (2025). Implementation of deep learning in school curriculum: Perspectives of teachers in Nagekeo Regency. *Paedagogia: Jurnal Penelitian Pendidikan*, *28*(2), 320–328. https://doi.org/10.20961/paedagogia.v28i2.103377

Kemendikbudristek. (2024). *Kebijakan Pembelajaran Deep Learning dalam Kurikulum Merdeka.* Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* SAGE Publications.

Lomba-Portela, L., Domínguez-Lloria, S., & Pino-Juste, M. R. (2022). Resistances to educational change: Teachers' perceptions. *Education Sciences*, *12*(5), Article 359, 1–12. https://doi.org/10.3390/educsci12050359

Lubis, S. I. A., Nisya, Z., & Lubis, Y. (2024). Learning environment and early childhood character development in Bronfenbrenner's ecological systems theory. *International Journal of Educational Research*, *1*(4), 44–56. https://doi.org/10.62951/ijer.v1i4.93

Marton, F., & Säljö, R. (1976). On qualitative differences in learning: I—outcome and process. *The British Journal of Educational Psychology*, *46*(1), 4–11. https://doi.org/10.1111/j.2044-8279.1976.tb02980.x

Mukhoyaroh, M., Sodikin, A., & Waluyo, W. (2025). Implementation of deep learning approaches: Challenges and solutions for teachers. *Radiant*, *6*(2), 134–146. https://doi.org/10.52187/rdt.v6i2.335

O'Donovan, M. (2020). *A review of research in new pedagogies for deep learning.* Centre of Teaching Development and Digital Media, Aarhus University. https://pure.au.dk/portal/en/publications/a-review-of-research-in-new-pedagogies-for-deep-learning/

Prihantini, P., Sutarto, S., Apriliyani, E. S., Stavinibelia, S., Arsyad, M., & Mukhtar, D. (2025). Deep learning approaches in education: A literature review on their role in addressing future challenge. *TOFEDU: The Future of Education Journal*, *4*(5), 1213–1220. https://doi.org/10.61445/tofedu.v4i5.532

Prihantoro, P., Prayitno, H. J., Indri, I., & Kusumaningtyas, D. A. (2025). Deep learning: Policies, concepts, and implementation in senior high schools in Indonesia. *Journal of Deep Learning*, *1*(1), 11–24. https://doi.org/10.23917/jdl.v1i1.10964

Riani, A., & Sujarwati, I. (2025). The preparedness of English teachers to implement deep learning in middle school. *EDUCASIA: Jurnal Pendidikan, Pengajaran, Dan Pembelajaran*, *10*(2), 229–244. https://doi.org/10.21462/educasia.v10i2.359

Säljö, R. (2021). The challenges of capturing learning: Units of analysis in the study of human growth. *Learning, Culture and Social Interaction*, *31*, Article 100428.

https://doi.org/10.1016/j.lcsi.2020.100428

Saputra, R. F. A., Ridha, M., & Sulaimon, J. T. (2025). Deep learning applications in primary education: A systematic literature review of emerging trends, challenges, and opportunities. *Jurnal Pendidikan Progresif*, *15*(3), 1785–1810. https://doi.org/10.23960/jpp.v15i3.pp1785-1810

Sari, W. D. (2025). Exploring teacher perceptions of deep learning for professional development: A technology acceptance model approach. *Jurnal Ilmu Pendidikan*, *31*(1), 115–124. https://doi.org/10.17977/um048v31i12025p115-124

Selwyn, N., & Heffernan, A. (2021). Teachers' work with digital technologies. In K.-A. Allen, A. Reupert, & L. Oades (Eds.), *Building Better Schools with Evidence-based Policy: Adaptable Policy for Teachers and School Leaders* (pp. 131–138). Routledge.

Simon, J. (2020). Three case studies. *Education and Training in Solution-Focused Brief Therapy*, 149–154. https://doi.org/10.7208/chicago/9780226983592.003.0001

Stake, R. E. (1995). *The art of case study research.* SAGE Publications.

Sudarmono, M. A., Hasan, H., & Halima, H. (2025). Deep learning approach in improving critical thinking skills of elementary school students. *Jurnal Penelitian Pendidikan IPA*, *11*(8), 60–70. https://doi.org/10.29303/jppipa.v11i8.11708

Sudirman, S., Firdaus, F., Mujahidah, M., & Jafar, M. I. (2025). Implementation of deep learning-based curriculum: Readiness of elementary school teachers. *Jurnal Eduscience*, *12*(6), 1614–1626. https://doi.org/10.36987/jes.v12i6.8082

Susanto, A., Yudianto, P., Rahmah, F., Pusvariauwaty, Putri, A. H., Suyito, & Yana, D. (2025). The role of deep learning in enhancing educational processes: Opportunities and applications. *eScience Humanity Journal*, *5*(2), 463–473.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Weng, C., Chen, C., & Ai, X. (2022). A pedagogical study on promoting students' deep learning through design-based learning. *International Journal of Technology and Design Education*, *33*(4), 1653–1674. https://doi.org/10.1007/s10798-022-09789-4

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.