Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

Exploring Teachers' and Students' Perceptions of Deep Learning: Integrating Meaningful, Mindful, and Joyful Learning in ELT Classrooms

Dea Amanda Ricita[1], Abdul Halim[2], Sunarti[3]
Universitas Muhammadiyah Kalimantan Timur, Indonesia
2111102421057@umkt.ac.id[1], ah918@umkt.ac.id[2], sun377@umkt.ac.id[3]
Correspondence author Email: 2111102421057@umkt.ac.id

Paper received: May-2025; Accepted: June-2025; Publish: Auguts-2025

Abstract

This study investigates teachers' and students' perceptions of deep learning within English Language Teaching (ELT) classrooms at SMK Negeri 15 Samarinda, focusing on the integration of meaningful, mindful, and joyful learning strategies. Employing a mixed-methods design, the research collected quantitative data through Likert-scale questionnaires from 66 students and 5 teachers, and qualitative data through semi-structured interviews with the same group of teachers. Quantitative results showed generally positive perceptions, with students reporting an average score of 3.17 on deep learning indicators. Notably, 86.3% strongly agreed that games and storytelling increased motivation, highlighting the value of joyful learning. Qualitative findings revealed key challenges, including limited infrastructure, inconsistent digital literacy, and curriculum constraints. However, teachers demonstrated adaptability through real-world projects, collaborative strategies, and reflective discipline. Despite minimal formal training, many educators intuitively applied deep learning principles. The study underscores the need for systemic support such as professional development and equitable resource allocation to ensure the effective and sustainable integration of deep learning in ELT practices.

Keywords: Deep learning; ELT; Perception; Meaningful; Mindful; Joyful learning.

1. Introduction

According to the World Bank (2018) in the book titled The World Development Report 2018 (WDR 2018) LEARNING to Realize Education's Promise, Indonesia has made significant progress in expanding access to education, with literacy rates rising dramatically from only 5 percent in 1945 to about 95 percent by 2015 (p. 58). Despite these improvements in admissions, however, learning outcomes remain a serious concern. Indonesian students demonstrate modest gains in international assessments such as PISA, and with current improvement rates, Indonesia needs to reach the Economic Co-operation and Development

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

(OECD) average of 48 years in mathematics and 73 years in reading (World Bank, 2018, p. 7). Furthermore, Indonesian students in the 75th percentile perform slightly better than students in the 25th percentile in the OECD countries (World Bank, 2018, p. 6). These patterns emphasize the phenomenon of "school without learning", where access to education does not necessarily mean the acquisition of basic skills required for personal and national development.

In the field of English Language Teaching (ELT), teachers continue to explore innovative methods to enhance student engagement and optimize learning outcomes (Peng, 2024). One such approach is deep learning, which emphasizes meaningful, mindful, and joyful learning experiences (Jiang, 2022). Unlike traditional rote memorization, deep learning encourages students to engage critically with content, reflect on their learning process, and derive genuine satisfaction from their academic progress (Kovač, 2023). Understanding how teachers perceive and implement deep learning principles in ELT classrooms is crucial for fostering more effective and engaging learning environments (Kunnikoff, 2021). This study examines teachers' perspectives on deep learning, identifying both challenges and opportunities in integrating meaningful, mindful, and joyful learning strategies into English instruction (Machost & Stains, 2023). The findings are expected to provide valuable insights for curriculum developers, educators, and policymakers seeking to enhance the depth and effectiveness of ELT practices (Dündar & Merç, 2017).

Recent studies highlight the potential of deep learning in English education. Shamim et al. (2023) explored both the benefits and challenges of integrating deep learning approaches, while Wang (2024) developed a model that improved student engagement and writing performance through experiential learning. Voreopoulou et al. (2024) introduced an augmented reality escape classroom game, demonstrating its effectiveness in fostering deep learning, cultural awareness, and skill development through interactive and playful elements. Similarly, Gandhi et al. (2024) investigated how individualized deep-learning training could optimize English learning outcomes. These studies collectively underscore the transformative potential of deep learning strategies in ELT.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

The emphasis on deep learning in ELT aligns with broader educational reforms that prioritize critical thinking, creativity, and problem-solving. Recognizing the limitations of rote memorization, Indonesia's Ministry of Primary and Secondary Education advocates for a conceptual shift known as deep learning, which emphasizes understanding and practical application supported by digital technologies (BKMH, 2025a). This reform underscores the role of technology-enhanced learning environments in fostering adaptable and engaged learners, reflecting global efforts to integrate deep learning principles into language education. By embedding technology-supported active learning within the curriculum, Indonesia aims to cultivate a more dynamic, future-ready education system that meets international standards (BKMH, 2025b).

This research is important as ELT transitions from memorization rote to the context of meaningful, mindful, and joyful learning of deep learning. Teachers' perceptions are significant, as they influence the effectiveness of classroom improvements. The research explores the challenges and opportunities in deep learning to help curriculum developers, the government, and teachers. This helps to create interactive ELT classrooms that encourage creativity, critical thinking, and flexibility, preparing students for complex, dynamic environments.

The study is based on three central research questions that explore the concept of deep learning in the context of English Language Teaching (ELT). First, it aims to understand how ELT teachers see deep learning, especially from the perspective of meaningful, mindful and joyful learning experiences. Secondly, researcher study how ELT students perceive deep learning from the same perspectives. Finally, the aim of this study is to identify specific challenges and opportunities faced by teachers when they seek to promote deep learning in classrooms. These questions are used together to provide a comprehensive understanding of the perceptions and practical realities of deep learning strategies in the ELT environment.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

1.1 Significant of the Study

The study provides a significant addition to the subject of pedagogy by including deep learning concepts into the discussion of successful teaching methods. While conventional teaching methods generally focus on memorization and assessments, this study changes the point of view to promoting deeper comprehension, critical thinking, and emotions in learning. This study aids teachers in developing deep learning strategies such as project-based learning, reflective practices, and technology integration to foster meaningful, engaging, and joyful learning while focusing on challenges such as time limits, limited resources, and obstacles to change through professional development and collaborative methods. For students, it highlights how deep learning improves critical thinking, real-world English application, and emotions while reducing stress and promoting creativity, flexibility, and self-management skills that are necessary for professional and academic achievement. For researchers, it provides opportunities in deep learning, ELT, and pedagogy providing frameworks for exploring diverse educational contexts, methodological insights into efficiency, and evidence-based contributions to inform global teaching strategies and curriculum, eventually addressing theory, practice, and innovative teaching and learning.

1.2 Deep learning and English Language Teaching

Deep learning strategies have been effectively utilized to improve English translation skills among college students. Research by Liu et al. (2024) highlights how these strategies enhance students' ability to comprehend and translate complex texts, leading to improved language proficiency and deeper understanding. The integration of deep learning into smart classroom models has been shown to foster a more engaging and effective learning environment. In one study, the implementation of a smart classroom teaching model led to a 14.49-point increase in post-test scores and improved affective engagement by 38.81% (Jin, 2024). Additionally, personalized learning approaches utilizing deep learning have been

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

developed to cater to individual student needs, thereby reducing teacher workload and enhancing student learning experiences (Huang, 2022).

Deep learning has also been applied to develop multimodal teaching models that focus on improving higher-order thinking skills and the quality of English classroom teaching (Han, 2022). Online teaching models based on deep learning have demonstrated the ability to stimulate student motivation and improve academic performance by leveraging technologies such as neural networks and clustering algorithms (Ding et al., 2021). In practical teaching contexts, deep learning technologies like Stacked Logistic Deep Learning (SLDL) have been used to enhance student proficiency and engagement, resulting in a 20% increase in English language assessment scores (Yang, 2024). Furthermore, deep learning has been employed to develop informative teaching strategies that utilize artificial intelligence to create dynamic and personalized learning experiences (Guo, 2021).

While these studies emphasize the potential of deep learning to improve language education, they frequently neglect the increased workload and emotional demands placed on teachers. Chang (2009) notes that without systematic support, using new approaches such as deep learning might lead to burnout and job-related stress. This shows that institutional support, sufficient training, and collaborative professional development are critical for sustainability (Darling-Hammond et al., 2017).

Furthermore, implementing deep learning into under-resourced institutions brings certain challenges. Kay et al. (2017) found that limited access to digital tools and internet infrastructure may delay meaningful deployment. These challenges force teachers to improvise with limited resources, frequently depending on mobile data and informal approaches to engage students.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

1.3 Meaningful Learning

Meaningful learning appears when it aligns with students' interests and needs, supported by a flexible curriculum that allows them to explore subjects they are naturally curious about (Lestari et al., 2023). This process is deeply rooted in Ausubel's assimilation theory, which emphasizes the integration of new knowledge with existing cognitive structures (Novak, 2002; Agra et al., 2019). The theory hypothesizes that meaningful learning occurs when learners actively engage with new information, leading to the construction and reconstruction of complex cognitive frameworks (Paul, 2012). In educational contexts, meaningful learning is seen as a way to enhance student motivation and engagement. For instance, in mathematics education, meaningful learning is achieved by connecting mathematical concepts to students' daily experiences and prior knowledge, thereby making the learning process more relevant and engaging (Polman et al., 2020). Polman et al. (2020) further emphasize that teachers employ various pedagogical practices, such as goal setting, creating future-oriented contexts, and fostering collaboration, to support meaningful learning. The integration of digital technologies in education has been shown to enhance meaningful learning by providing authentic learning experiences. Student teachers, for example, have reported that meaningful learning activities improve their digital pedagogy skills, enabling them to effectively incorporate Web 2.0 tools into their teaching practices (Sailin & Mahmor, 2018). In addition, this combination not only boosts their confidence but also prepares them for future teaching challenges.

A popular technique for promoting meaningful learning is concept mapping, which shows information and its connections graphically (Vallori, 2014). Vallori found that this method helps learners organize and integrate new information with existing knowledge, promoting deeper understanding and memorization. Additionally, collaborative group learning and the use of educational resources are effective strategies for fostering meaningful learning, as they encourage active participation and knowledge development (Novak, 2002; Vallori, 2014). Despite its benefits, meaningful learning faces challenges, such as the practical

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

application of digital tools in educational settings and the need for systemic reform in educational methodologies Paul (2012). The potential for meaningful learning to remodel teaching by enhancing learners' cognitive abilities remains significant (Paul (2012); Mystakidis (2021); furthermore, research shows that student reflection is crucial for developing this meaning. Specifically, Andrade & Valtcheva (2009) claim that self-assessment methods considerably increase student involvement, enabling higher cognitive engagement a component frequently undervalued in ELT despite its established advantages.

1.4 Mindful Learning

Mindful learning involves drawing novel distinctions and being sensitive to context and perspective, which helps avoid rigid mindsets that limit learning potential (Langer, 2000). It is rooted in the idea that many beliefs about learning are mindlessly accepted, and mindful reconsideration can lead to more effective learning strategies (Langer, 2000). This approach is characterized by increased awareness of the surrounding context and reflection on personal experiences, which enhances intrinsic motivation and attentiveness (Bordunos et al., 2024). Mindful learning has been applied in various learning environments, from elementary schools to higher education. For instance, a study on elementary students demonstrated that a 10-minute daily mindful awareness program significantly improved quarterly grades in reading and science without disrupting teaching operations (Bakosh et al., 2015). In higher education, mindful learning has been integrated into courses to create supportive environments that reduce student stress and enhance engagement with academic materials (Holyoke et al., 2022).

Research indicates that mindful learning can improve learning abilities by enhancing self-regulation, metacognition, and emotional control (Corti & Gelati, 2020). It also positively impacts students' subjective and psychological well-being, suggesting that mindful learning can be a protective factor against stress and anxiety (Wang et al., 2023). The integration of mindful learning practices in education has been shown to support both learning outcomes and the psychological well-being of students and teachers (Bordunos et al., 2024). Beyond

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

academic performance, mindful learning also influences behaviors such as pro-environmental actions. Studies have shown that mindful learning can increase pro-environmental behavioral intentions, although the effects can vary depending on the focus of the learning materials (Tang et al., 2017).

While the benefits of mindful learning are evident, challenges remain in its implementation, such as overcoming barriers to organizational learning in crisis management (Veil, 2010). Future research is needed to explore the long-term effects of mindful learning and its potential to foster creativity and innovation in educational settings (Henriksen et al., 2020). In addition to classroom practice, mindful learning requires teachers to actively observe and respond to student understanding, as noted by Chang (2009) and Pekrun et al. (2002), who emphasize the importance of emotions and teacher responsiveness in academic achievement and engagement.

1.5 Joyful Learning

Recent research investigates joyful learning in a variety of educational environments. In higher education, joyful learning can promote multidisciplinary interaction while also increasing creativity and knowledge-building (Holflod, 2022). Teacher innovation, a pleasant environment, and the utilization of technology all contribute to engaging classroom experiences (Taufiqurohman et al., 2022). Few studies exist on the relationship between playful learning environments and materiality in teacher education, with materials typically being inconspicuous components (Jørgensen et al., 2022). In language learning, self-regulation is associated with optimism and joy, which may increase learners' enthusiasm, life satisfaction, and problem-solving abilities (Huang, 2022). These emotional characteristics have a good correlation with mental health and general well-being. According to the findings, teachers should focus on providing engaging, entertaining learning environments while also considering the importance of emotions in encouraging self-regulation and academic performance at various educational levels.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

However, the relationship between joyful learning and long-term retention requires further research. Pekrun et al. (2002) discovered that positive academic emotions, such as enjoyment and curiosity, are strongly related to memory formation and student achievement, implying that enjoyable activities like games and storytelling may have higher cognitive value than previously concept.

2. Review Method

This study employs a mixed-methods research design, integrating quantitative and qualitative approaches to examine perceptions of deep learning within English Language Teaching (ELT) contexts. Mixed methods research combines qualitative and quantitative approaches to provide a more complete understanding of complex phenomena (Turner et al., 2017). The study investigates how ELT teachers and students perceive deep learning through the lens of meaningful, mindful, and joyful learning experiences and explores the challenges and opportunities teachers face in fostering deep learning in ELT classrooms.

The quantitative phase of the study follows a descriptive survey design, utilizing Likert-scale questionnaires to collect data from ELT teachers and students. These questionnaires aim to measure perceptions of deep learning by capturing responses on engagement, cognitive processing, emotional involvement, and the perceived effectiveness of learning experiences. The qualitative phase involves semi-structured interviews with ELT teachers to explore their experiences, challenges, and opportunities in promoting deep learning. This phase adopts a thematic analysis approach to identify recurring patterns and deeper insights into how teachers facilitate meaningful, mindful, and joyful learning.

2.1. Samples/Participants

Participants in this study were students from SMK Negeri 15 Samarinda during the 2025/2026 academic year. A cross-sectional approach is utilized for each of the educational differences in teaching focus and goals. The study used quantitative random sampling for 66

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

students (Grades 10 and 11) and 5 ELT teachers, which increased its probability of obtaining a significantly varied sample. The same 5 ELT teachers were selected for the qualitative using purposive sampling. Purposive sampling selects participants based on their expertise or qualities, ensuring that the data collected is relevant and thorough. However, this study's small sample of five teachers limits the generalizability of the findings. Future research should expand the sample to include varied contexts and experience levels for more comprehensive insights Tarnoki & Puentes (2019).

2.2. Instruments

To address the first two research questions, Likert-scale questionnaires will be administered separately to the teachers (RQ1) and students (RQ2). The questionnaires are adapted from Alzahrani & Alnufaie (2024) to match the related research questions. These questionnaires aim to assess their perceptions of deep learning within the context of meaningful, mindful, and joyful learning experiences. The structured format of the questionnaires will allow for a systematic analysis of participants' views on how deep learning is facilitated in ELT classrooms.

Each questionnaire will consist of five sections. The first section, Demographic Information, will gather data on participants' age, teaching or learning experience, and educational background to provide contextual information for the analysis. The second section, Meaningful Learning, will include items measuring students' and teachers' engagement in authentic, relevant, and inquiry-based learning experiences. The third section, Mindful Learning, will focus on assessing participants' self-awareness, metacognitive strategies, and reflective learning practices. The fourth section, Joyful Learning, will explore elements related to student motivation, emotional well-being, and enthusiasm in ELT classrooms. Finally, the fifth section, Overall Perceptions of Deep Learning, will collect participants' general attitudes toward the effectiveness of deep learning strategies in ELT. Responses will be rated on a five-point Likert scale (1 = strongly disagree, 4 = strongly agree). The questionnaire will undergo a

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

pilot study to ensure reliability and validity before full implementation. The data collected will provide quantitative insights into how both teachers and students perceive deep learning in ELT.

To explore the specific challenges and opportunities ELT teachers encounter in promoting deep learning (RQ3), semi-structured interviews will be conducted. The question adaptation from Neghavati (2016). These interviews will offer qualitative insights into teachers' perspectives, allowing for a more in-depth understanding of their experiences in implementing meaningful, mindful, and joyful learning strategies. The interview questions will cover several key areas. First, teachers will be asked about the strategies they use to implement deep learning in their classrooms. Next, the discussion will explore the difficulties they face in fostering meaningful, mindful, and joyful learning experiences. The interviews will also address institutional and pedagogical support available to teachers, as well as their perceptions of student engagement and responses to deep learning approaches. Lastly, teachers will be invited to share recommendations for improving deep learning practices in ELT. The interviews will be audio-recorded, transcribed, and analyzed using thematic analysis (Braun & Clarke, 2006) to identify recurring themes and patterns.

2.3. Data Analysis

The results from the Likert-scale questionnaire will be analyzed quantitatively using IBM SPSS Statistics, with mean scores, standard deviations, and frequency distributions used to summarize participants' impressions. Demographic data will be examined using frequencies and percentages, whereas descriptive statistics will be used to measure meaningful, mindful, and joyful learning. Qualitative data from semi-structured interviews will be thematically analyzed to uncover significant themes on challenges and opportunities faced by the teacher. Integrating the mix method will provide a more complete picture of participants' perceptions with meaningful, mindful, and joyful learning in ELT classes.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

3. Findings and Discussion

In this part of the study, the research questions outlined above are explored through three main sections. The first section presents ELT teachers' perceptions of deep learning within the context of meaningful, mindful, and joyful learning experiences. The second section examines ELT students' perceptions of deep learning and includes questionnaires from their experiences to highlight their perceptions on deep learning in language education. The third section addresses the specific challenges and opportunities that teachers encounter in promoting deep learning within ELT classrooms, based on qualitative data to analyze practical implications for classroom practice.

3.1. Teachers' Perceptions of Deep Learning

Table 1 Descriptive Analysis of Teachers' Perceptions

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	5	2	4	3.00	.707
Q2	5	3	4	3.40	.548
Q3	5	2	4	3.00	.707
Q4	5	3	4	3.20	.447
Q5	5	2	4	3.20	.837
Q6	5	2	4	3.00	.707
Q7	5	3	4	3.20	.447
Q8	5	2	4	3.00	1.000
Q9	5	3	4	3.20	.447
Q10	5	3	4	3.40	.548
Valid N (listwise)	5				

*(Scale: 1 = Strongly Disagree, 2 = Disagree, 3= Agree, 4 = Strongly Agree)

The data show teachers' perceptions of deep, conscious and joyful learning in English language learning. The sample size was small (N = 5), but the answers provided meaningful

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

insights. Overall, the average score for the ten items was 3.00 to 3.40, indicating a consistently positive perception. The Q2 and Q10 items received the highest average points (3.40), showing that teachers strongly agreed on the importance of real-life connections and a joyful learning strategy for improving students' participation and motivation. Most responses for all points were in the categories of agreement or strong agreement, with minimal contradictions. For example, in Q4, Q7, and Q9 each, 80 percent of teachers agreed and 20 percent strongly agreed, highlighting a common belief in the effectiveness of deep, thoughtful teaching practices. However, some variations were observed. In the 8th quarter, with the highest standard deviation (1,000), 40% of teachers disagreed and suggested a different view of the issue. Despite these changes, the consistency of the average and mode values (mostly 3) further strengthens the general alignment of the positive perception of teachers. Minor differences of opinion on questions Q1, Q3, Q5, Q6 and Q8 (each with at least one "disagreement" response) suggest areas that can benefit from further professional development or discussion. In summary, the findings indicate that teachers generally support the integration of deep, conscious and happy learning approaches in English courses. Their responses reflect a belief in the value of promoting critical thinking, emotional engagement, and relevance to the real world the core principles of effective and student-focused language education.

In the field of English teaching, deep learning is increasingly recognized as an approach to integrating meaningful, mindful and joyful learning experiences and influencing teacher design and teaching methods. The questionnaire's responses showed that teachers generally recognized and supported the integration of deep-learning principles into ELT classrooms. Most teachers agree that meaningful, conscious and happy strategies are essential to improve students' language skills. This is consistent with Jiang's (2022) view that language education deep learning promotes critical involvement, emotional involvement, and higher-order thinking. Teachers reported using strategies to link English lessons to real contexts (a meaningful learning), such as content design based on students' professional interests. This reflects Lestari et al. (2023), which emphasizes the importance of curriculum flexibility and

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

relevance in the real world to promote the participation of students. Likewise, mindfulness activities such as reflection and attention-oriented tasks (Bakosh et al., 2015) and joyful strategies such as games and storytelling (Taufiqurohman et al., 2022) are common among respondents. However, the variations in responses, in particular in terms of adequate training and institutional support, suggest inconsistencies in teacher preparation and system support. This is consistent with the conclusions of Hanriksen et al. (2020) emphasized the need for continuous professional development to support conscious and innovative learning practices.

3.2. Students' Perceptions of Deep Learning

Table 2 Descriptive Analysis of Students' Perceptions

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Q1	66	1	4	2.92	.535
Q2	66	1	4	2.86	.579
Q3	66	2	4	3.00	.496
Q4	66	1	4	3.17	.776
Q5	66	1	4	3.03	.723
Valid N (listwise)	66				

*(Scale: 1 = Strongly Disagree, 2 = Disagree, 3= Agree, 4 = Strongly Agree)

The analysis of the student's responses reveals a generally positive perception of the deep, mindful and joyful learning of English courses. In the first quarter, the majority of students (74.8 percent) agreed that English classes helped them understand deeper concepts rather than relying on memory. This indicates that students recognize the cognitive value of the lessons, but a small minority (15.1%) does not agree with it, indicating that improvement can be made in promoting conceptual understanding. In the second quarter, 69.7% of students agreed to activities that connect English with the context of real life, with an average of 2.86.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

Although most of the responses were positive, a significant 21.2% opposed, suggesting a need for more relevant context learning experiences. Q3 shows that mindful activity supports focus and calm, with 75.8% agreement and an average of 3.0. This shows that such practices are well received and have a positive impact on the learning environment. The joy-learning activity (Q4) was the highest level of agreement, with an average of 3.17. 86.3% of students strongly agreed that games and storytelling improve motivation, highlighting the strong impact of joyful strategies on student engagement. In the fifth question (Q5), 81.8 percent of students agreed that deep learning supports critical thinking and problem solving (media= 3.03). However, 18.2% of those who opposed it suggested that deeper cognitive engagement could not be fully accessible to all learners. Overall, the results show that students prefer a way of learning that integrates meaningful, mindful and joyful learning experiences.

As a result, students recognized that deep learning was more effective when new knowledge was linked to real experiences, promotes focus, and includes joyous elements such as games and stories. These aspects not only promote motivation and enjoyment, but also support the development of critical thinking and problem-solving skills. Most students found that learning was more effective when it was linked to the real context, which supported Lestari et al. (2023) and Ausubel's theory that meaningful learning occurs when new knowledge is linked to previous experiences. However, a minority of people still feel that lessons are disconnected and suggest the need for more context-sensitive instruction. Mindfulness activities such as reflection and focus are well received. This is consistent with the conclusions of Bakosh et al. (2015) and Wang et al. (2023) reported that mindful learning improves focus, well-being, and metacognitive awareness. Joyful learning especially through games and stories was rated by students as the best, as indicated by Taufiqurohman et al. (2022) and Huang (2022), who emphasize that enjoyment increases motivation, creativity and emotional engagement. Finally, students realized that deep learning improves critical thinking and problem-solving skills, strengthening the value of deeper engagement, as discussed by Mystikidis (2021).

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

3.3. Challenges and Opportunities

Table 3 Thematic Analysis of the Data

Theme	T1	T2	T3	T4	T5
Time Management (Q1)	Uses cross-major themes like AI	Blends textbooks with projects	Adapts based in student level	Integrates video tasks by major	Aligns lesson flow with comprehension goals (e.g., skimming, scanning)
Tech Tools (Q2)	No official tools, uses WhatsApp	Limited Wi-Fi, students rely on mobile data	Uses Visual Communication Design laboratory with initiative	Uses Quizizz; tools limited and competitive	Use Google Forms, WhatsApp; lacks Wi-Fi and has limited device access
Student Resistance (Q3)	Students adapt well; peer support helps	AI misuse is the concern	Grade 10 students are tech-shy	Students lack confidence in speaking rely on reading	Uses light consequences (e.g., answering questions); encourages reflections not punishment
Collaborative Practice (Q4)	Not addressed	Group tasks help build engagement	Uses “coin” incentive to encourage speaking	Multimodal video builds oral skills	Backward design through peer-led discussion; builds class agreements
Professional Readiness (Q5)	Self-initiated; explores new tools	Practicing deep learning unknowingly	Accommodate to students’ level capability	Keeps innovating and aligning with curriculum	Attends Professional Development webinars; acknowledge lack of deep

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

	learning exposure; generational gap noted

* Q = Questions; T = Teacher

The results show that teachers at SMK Negeri 15 Samarinda use various time management strategies that match the goals of deep learning. These strategies included aligning lessons with the students' careers, teaching reading strategies such as skimming and scanning, and maintaining the flow of the structured classroom. This indicates that many aspects of deep learning are already embedded in teaching practices, although the term "deep learning" is not explicitly used. Teachers have also demonstrated adaptability by integrating project-based learning and selecting subjects that apply to the majors, highlighting a practical understanding of context-specific teaching. However, deep learning implementations are often limited by technological barriers. Due to the lack of internet access and the limited digital infrastructure provided by schools, most teachers relied on basic tools such as WhatsApp and Google forms. This situation highlights the important digital divide that directly affects educational innovation.

Students' resistance is generally minimal, although there are behavioral challenges such as over-reliance on AI tools such as ChatGPT and a lack of confidence in speaking or presenting. Teachers have addressed these issues through supportive measures such as peer collaboration and reflective discipline, which have contributed to maintaining an environment conducive to deep learning. The methods of collaborative learning were particularly effective in promoting engagement. Teachers encouraged participation through group projects, classroom discussions and jointly developed learning agreements. These strategies supported the communication, critical thinking and reflection of students, the core components of deep learning. In addition, the teachers demonstrated high levels of professional knowledge and growth, despite not all receiving formal training. Many have already intuitively implemented

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

deep learning principles, especially by making lessons relevant to students' vocational paths. This proactive mindset shows the potential for a stronger implementation with appropriate support and guidance.

The qualitative findings reveal both challenges and opportunities in implementing deep learning within ELT classrooms at SMK Negeri 15 Samarinda. Although teachers show strong support for meaningful, mindful, and joyful learning, several systemic and practical limitations hinder full integration. Technological constraints emerged as a major issue. Teachers identified the lack of school infrastructure, such as internet access, digital tools, and classroom facilities. Teacher 1 noted, "*I've just been creating my own PDFs and sending them via WhatsApp.*" These limitations coincide with previous studies showing that limited access to technology restrains educational innovation (Ding et al., 2021; BKHM, 2025a). Jin (2024) and Liu et al. (2024) emphasized that smart and digital classrooms improve student performance and engagement, but such resources remain unevenly distributed. Interactive platforms such as Quizizz and Kahoot are rarely used due to internet data and device problems (Taufiqurohman et al., 2022).

Similarly, Sailin and Mahmor (2018) stressed that meaningful learning is best supported when digital tools are integrated effectively, a condition often unmet in under resourced schools. Digital inequalities and growing dependence on AI were also reported. Not all students have the same digital abilities. As Teacher 3 observed, "*Some don't even know how to use Canva unless they're in a group.*" In addition, the increasing reliance on AI tools such as ChatGPT to complete tasks has raised concerns about reduced student initiative and critical thinking. This supports Gandhi et al. (2024), who warned of passive learning habits formed by overuse of AI. Huang (2022) also noted that while technology can support language learning, it must be balanced with mindful and self-regulated learning strategies to prevent cognitive disengagement.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

Curricular limitations further hinder implementation. Teachers struggle to balance deep learning strategies with an examination-oriented curriculum. Teacher 1 shared, "*I pick one theme that's relevant to everyone... to manage time and make it meaningful.*" This reflects the broader challenge of integrating reflective, project-based learning within rigid curriculum structures (Kovač et al., 2023). These pressures are echoed in Machost and Stains (2023), who argue that meaningful pedagogical shifts require systemic curriculum reform. Despite these issues, teachers demonstrated pedagogical adaptability. They integrated real-world contexts and collaborative projects, such as video-based tasks and group discussions. Teacher 4 mentioned, "*I asked students to make videos related to their field,*" which supports Wang (2024), who highlights the benefits of experiential learning for student participation and skill development.

Additionally, teachers expressed interest in professional growth and collaboration. While some reported a lack of formal training in deep learning, many have intuitively adopted its principles. As Teacher 5 noted, "*We're already doing it—just in different terms.*" This observation aligns with Jiang (2022), who found that deep learning is often practiced without formal recognition, especially when tied to student-centered activities. Collaborative approaches such as peer observation, student agreements, and discussions helped strengthen these practices, consistent with Henriksen et al. (2020), who emphasize the role of professional learning communities in fostering innovation. Moreover, Dündar and Merç (2017) emphasize that sustainable changes in ELT practices depend on teacher agency, continuous reflection, and institutional support factors that were clearly reflected in the proactive strategies employed by teachers in this study.

3.4. Classroom Management and Student Engagement

In addition to infrastructural limititations, classroom management presented ongoing challenges. Teachers frequently cited student distractions particularly from mobile phones as major obstacles. Teacher 1 observed, "*Student focus is the biggest challenge. Even when we*

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

ask them to turn off notifications, they might not. Supervision is important." This, supports findings from Kay et al. (2017), who documented how mobile device distractions significantly affect classroom dynamics and learning outcomes. Disciplinary strategies varied among teachers but tended toward reflective rather than punishing approaches. Teacher 5 explained, "*If students come late, I might have them stand and answer some questions—not physical punishment. I want them to reflect.*" Such approaches are consistent with student-centered discipline frameworks that promote accountability while supporting emotional engagement (Pekrun et al., 2002).

4. Conclusion

This study found that teachers and students at SMK Negeri 15 Samarinda view deep learning, which consists of meaningful, mindful, and joyful learning, as advantageous to English language teaching (ELT). Teachers emphasize approaches that connect teachings to the real-life world, encourage student reflection, and boost engagement through pleasant activities. Similarly, students conveyed increased motivation, interest, and critical thinking when these methods were applied. However, problems such as insufficient infrastructure for technology, time limitations, and gaps in digital literacy make effective implementation difficult to navigate. Despite these challenges, teachers show adaptability and a passion to innovate. These findings underscore the importance of systemic support, such as professional development and resource allocation, in successfully implementing deep learning into the ELT classroom and improving outcomes for students.

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

References

A.K. Bordunos, Miletich, M. P., & Volkova, N. V. (2024). Mindful Learning: Principles and Prospect of Use in Higher Education. *Psychological Science and Education*, *29*(4), 16–30. https://doi.org/10.17759/pse.2024290402

Agra, G., Formiga, N. S., Oliveira, P. S. de, Costa, M. M. L., Fernandes, M. das G. M., & Nóbrega, M. M. L. da. (2019). Analysis of the concept of Meaningful Learning in light of the Ausubel's Theory. *Revista Brasileira de Enfermagem*, *72*(1), 248–255. https://doi.org/10.1590/0034-7167-2017-0691

Alzahrani, I., & Alnufaie, M. (2024). Deep Learning Self-Regulation Strategies in the Learning of English as a Foreign Language Among Arab College Students. *Teaching English as a Second or Foreign Language--TESL-EJ*, *28*(2). https://doi.org/10.55593/ej.28110a3

Andrade, H., & Valtcheva, A. (2009). Promoting learning and achievement through self-assessment. Theory Into Practice, 48(1), 12–19. https://doi.org/10.1080/00405840802577544

Bakosh, L. S., Snow, R. M., Tobias, J. M., Houlihan, J. L., & Barbosa-Leiker, C. (2015). Maximizing Mindful Learning: Mindful Awareness Intervention Improves Elementary School Students' Quarterly Grades. *Mindfulness*, *7*(1), 59–67. https://doi.org/10.1007/s12671-015-0387-6

BKHM. (2025a, February 18). Mendikdasmen Tekankan Peran Deep Learning dalam Meningkatkan Kualitas Pendidikan Indonesia. Direktorat Sekolah Menengah Kejuruan. Direktorat Jenderal Pendidikan Vokasi. Kementerian Pendidikan Dan Kebudayaan Republik Indonesia. Retrieved March 4, 2025, from https://smk.kemdikbud.go.id/konten/123/mendikdasmen-tekankan-peran-deep-learning-dalam-meningkatkan-kualitas-pendidikan-indonesia.

BKHM. (2025b, February 17). Membangun Pendidikan Masa Depan: Wamendikdasmen Tekankan Pentingnya Deep Learning di Era Digital [Press release]. Kementrian Pendidikan Kebudayaan Riset dan Teknologi. Retrieved March 4, 2025, from https://www.dikdasmen.go.id/siaran-pers/Membangun%20Pendidikan%20Masa%20Depan:%20Wamendikdasmen%20Tekankan%20Pentingnya%20Deep%20Learning%20di%20Era%20Digital.

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

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

Chang, M. L. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. Educational Psychology Review, 21(3), 193–218. https://doi.org/10.1007/s10648-009-9106-y

Corti, L., & Gelati, C. (2020). Mindfulness and Coaching to Improve Learning Abilities in University Students: A Pilot Study. *International Journal of Environmental Research and Public Health*, *17*(6), 1935. https://doi.org/10.3390/ijerph17061935

Darling-Hammond, L., Hyler, M. E., Gardner, M. (2017). Effective Teacher Professional Development. Palo Alto, CA: Learning Policy Institute. https://doi.org/10.54300/122.311

Ding, H., Chen, Y., & Wang, L. (2021). College English Online Teaching Model Based on Deep Learning. *Security and Communication Networks*, *2021*, 1–11. https://doi.org/10.1155/2021/8919320

Dündar, E., & Merç, A. (2017). A CRITICAL REVIEW OF RESEARCH ON CURRICULUM DEVELOPMENT AND EVALUATION IN ELT. *European Journal of Foreign Language Teaching*, *2*(1). https://doi.org/10.5281/zenodo.437574

Gandhi, N. R., P Pandiammal, C Mary Lowrencia, & Martin, N. (2024). Deep Learning in Streamlining Students by English Proficiency to Optimize Language Learning. *3*, *4*(3), 1–7. https://doi.org/10.46632/daai/4/3/1

Han, X. (2022). Investigation on Deep Learning Model of College English Based on Multimodal Learning Method. *Computational Intelligence and Neuroscience*, *2022*, 1–10. https://doi.org/10.1155/2022/7001392

Henriksen, D., Richardson, C., & Shack, K. (2020). Mindfulness and creativity: Implications for thinking and learning. *Thinking Skills and Creativity*, *37*(37), 100689. https://doi.org/10.1016/j.tsc.2020.100689

Holflod, K. (2022). Playful learning and boundary-crossing collaboration in higher education: a narrative and synthesising review. *Journal of Further and Higher Education*, 1–16. https://doi.org/10.1080/0309877x.2022.2142101

Holyoke, L. B., Schiffelbein, K., Bryant, E., & Derrick, J. (2022). Exploring the transforming nature of a mindfulness course. *Journal of Further and Higher Education*, 1–14. https://doi.org/10.1080/0309877x.2021.2020221

Huang, C. (2022). Self-Regulation of Learning and EFL Learners' Hope and Joy: A Review of Literature. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.833279

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

Huang, J. (2022). Personalized College English Learning Based on Deep Learning under the Background of Big Data. *Computational Intelligence and Neuroscience*, *2022*, 1–9. https://doi.org/10.1155/2022/7361746

Jiang, R. (2022). Understanding, Investigating, and promoting deep learning in language education: A survey on chinese college students' deep learning in the online EFL teaching context. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.955565

Jin, Y. (2024). Construction and Application of University English Smart Classroom Teaching Model Based on Deep Learning. *Applied Mathematics and Nonlinear Sciences*, *9*(1). https://doi.org/10.2478/amns-2024-1291

Jørgensen, H. H., Schrøder, V., & Skovbjerg, H. M. (2022). Playful Learning, Space and Materiality: An Integrative Literature Review. *Scandinavian Journal of Educational Research*, 1–14. https://doi.org/10.1080/00313831.2021.2021443

Kay, R., Benzimra, D., & Li, J. (2017). Exploring Factors That Influence Technology-Based Distractions in Bring Your Own Device Classrooms. Journal of Educational Computing Research, 55(7), 974-995. https://doi.org/10.1177/0735633117690004

Kovač, V. B., Nome, D. Ø., Jensen, A. R., & Skreland, L. Lj. (2023). The why, what and how of deep learning: critical analysis and additional concerns. *Education Inquiry*, 1–17. https://doi.org/10.1080/20004508.2023.2194502

Langer, E. J. (2000). Mindful Learning. *Current Directions in Psychological Science*, *9*(6), 220–223. https://doi.org/10.1111/1467-8721.00099

Lestari, N., Winarsih, M., & Kusumawardani, D. (2023). Research trends in meaningful learning in distance education environments: A review of articles published in Q1 to Q3 indexed journal from 2012 to 2022. *Jurnal Inovasi Teknologi Pendidikan*, *10*(2), 189–202. https://doi.org/10.21831/jitp.v10i2.56029

Liu, J., Li, Z., & Huang, Q. (2024). Research on the Construction of Translation Path of College English Teaching Based on Deep Learning Strategy. *Applied Mathematics and Nonlinear Sciences*, *9*(1). https://doi.org/10.2478/amns-2024-0918

Machost, H., & Stains, M. (2023). Reflective practices in education: A primer for practitioners. *CBE—Life Sciences Education*, *22*(2). https://doi.org/10.1187/cbe.22-07-0148

Mystakidis, S. (2021). Deep Meaningful Learning. *Encyclopedia*, *1*(3), 988–997. https://doi.org/10.3390/encyclopedia1030075

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

Neghavati, A. (2016). Core Skills Training in a Teacher Training Programme. *Procedia - Social and Behavioral Sciences*, *232*, 617–622. https://doi.org/10.1016/j.sbspro.2016.10.085

Novak, J. D. (2002). Meaningful learning: The essential factor for conceptual change in limited or inappropriate propositional hierarchies leading to empowerment of learners. *Science Education*, *86*(4), 548–571. https://doi.org/10.1002/sce.10032

Paul, R. S. (2012). A Review of "Learning, Creating, and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporation." *The Information Society*, *28*(1), 57–59. https://doi.org/10.1080/01972243.2012.632283

Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. Educational Psychologist, 37(2), 91–105. https://doi.org/10.1207/S15326985EP3702_4

Peng, J. (2024). English Language Teaching Methods: Exploring the Impact of Various Approaches on Students' Language Learning Outcomes. *SHS Web of Conferences*, *187*, 01008–01008. https://doi.org/10.1051/shsconf/202418701008

Polman, J., Hornstra, L., & Volman, M. (2020). The meaning of meaningful learning in mathematics in upper-primary education. *Learning Environments Research*, *24*(1). https://doi.org/10.1007/s10984-020-09337-8

Sailin, Siti Nazuar & Mahmor, Noor. (2018). Improving Student Teachers' Digital Pedagogy through Meaningful Learning Activities. Malaysian Journal of Learning and Instruction. 15. 143-173. http://dx.doi.org/10.32890/mjli2018.15.2.6

Shamim, M., Choudhury, S., None Joyirsiram, Suresh, N., Frederick, N., Akshay Ashok Bannatti, & L. Rahunathan. (2023). English Language and Linguistic Teaching Strategies Based on Deep Learning. *2023 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS).* https://doi.org/10.1109/ictacs59847.2023.10390042

Tang, Y., Geng, L., Schultz, P. W., Zhou, K., & Xiang, P. (2017). The effects of mindful learning on pro-environmental behavior: A self-expansion perspective. *Consciousness and Cognition*, *51*, 140–148. https://doi.org/10.1016/j.concog.2017.03.005

Tarnoki, C., & Puentes, K. (2019). Something for Everyone: A Review of Qualitative Inquiry and Research Design: Choosing among Five Approaches. The Qualitative Report, 24(12), 3122-3124. https://doi.org/10.46743/2160-3715/2019.4294

Borneo Educational Journal (Borju)
https://jurnal.fkip-uwgm.ac.id/index.php/Borju
Volume 7, Issues 2, Auguts,2025
EISSN : 2655-9323
Section : Article
Page : 323-347
DOI : 10.24903/bej.v7i2.2078

==========

Taufiqurohman, T., Nurihsan, J., & Rachmawati, Y. (2022). Analysis of Factors that Influence Students' Enjoyable Learning in Class: A Literature Review. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, *14*(1), 513–528. https://doi.org/10.37680/qalamuna.v14i1.4360

Turner, S. F., Cardinal, L. B., & Burton, R. M. (2017). Research Design for Mixed Methods. *Organizational Research Methods*, *20*(2), 243–267. https://doi.org/10.1177/1094428115610808

Vallori, A. B. (2014). Meaningful Learning in Practice. *Journal of Education and Human Development*, *3*(4). https://doi.org/10.15640/jehd.v3n4a18

Veil, S. R. (2010). Mindful Learning in Crisis Management. *Journal of Business Communication*, *48*(2), 116–147. https://doi.org/10.1177/0021943610382294

Wang, J. (2024). A Strategic Study of Using Deep Learning to Improve the Effectiveness of English Education in Colleges and Universities. *Applied Mathematics and Nonlinear Sciences*, *9*(1). https://doi.org/10.2478/amns-2024-1776

Wang, Q., Zhang, Y., Zhang, Y., & Chen, T. (2023). The Impact of Mindful Learning on Subjective and Psychological Well-Being in Postgraduate Students. *Behavioral Sciences*, *13*(12), 1009–1009. https://doi.org/10.3390/bs13121009

World Bank. (2018). *World Development Report 2018: Learning to Realize Education's Promise*. World Bank. https://dx.doi.org/10.1596/978-1-4648-1096-1

Yang, Y. (2024). Application of Deep Learning Technology in English Practical Teaching. *Deleted Journal*, *20*(3s), 1897–1906. https://doi.org/10.52783/jes.1729