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[Abdul Gafur Marzuki](#) *

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Article

Transforming Traditional Pedagogy: The Role of Learning Management Systems in English Language Instruction in Indonesia

Abdul Gafur Marzuki

UIN Datokarama Palu; gbudiperwira@gmail.com

Abstract

The rapid integration of digital technologies into education has reshaped pedagogical practices worldwide, including in Indonesia, where English as a Foreign Language (EFL) instruction increasingly relied on Learning Management Systems (LMS). This study aimed to investigate how LMS transformed traditional pedagogy in Indonesian EFL classrooms, focusing on teaching practices, student engagement, learning outcomes, and institutional challenges. Employing a qualitative case study design, the research was conducted in one public university and two secondary schools across rural and urban contexts. Data were collected through semi-structured interviews with teachers, students, and administrators, classroom observations, and document analysis. Thematic analysis revealed that LMS facilitated a shift from lecture-centered instruction to more interactive, multimedia-based, and task-oriented approaches. Students reported higher motivation and autonomy, supported by features such as recorded speaking activities and structured online forums, though digital inequities limited participation in under-resourced settings. Assessment practices evolved toward continuous and formative methods, with LMS analytics enabling timely feedback and modest gains in reading and writing proficiency, while improvements in speaking remained inconsistent. Institutional challenges, including unequal infrastructure and varied teacher digital literacy, constrained the full realization of LMS benefits. Overall, the study highlighted LMS as both a catalyst for pedagogical innovation and a mirror reflecting broader structural inequities in education, emphasizing the need for sustained policy support and professional development to ensure equitable and effective implementation.

Keywords: digital literacy; english language instruction; learning management systems; pedagogy transformation

Introduction

Over the past decade, Indonesia has witnessed a rapid shift in its educational landscape, as Learning Management Systems (LMS) emerged from niche tools to central platforms in formal instruction. The COVID-19 pandemic acted as a major catalyst, forcing English language educators across Indonesia to adopt platforms such as Moodle and Google Classroom to maintain continuity (Reid & Reid, 2019; Nasution, 2024). Globally, the integration of LMS in language classrooms has become a key pedagogical trend, aligning with shifts toward blended learning and digital fluency (Purnomo et al., 2024). Yet in Indonesia, the transformation from traditional pedagogy to LMS-mediated instruction is still uneven, especially in English language teaching.

This study positions itself at the intersection of pedagogical innovation and digital transformation in the Indonesian EFL context. Learning Management Systems offer features such as asynchronous forums, quizzes, multimedia content delivery, and tracking of individual progress, all of which connect directly to theories of self-regulated and learner-centred pedagogy. Indonesian researchers have noted that when properly used, LMS can enhance reading, writing, listening, and speaking skills, promote learner autonomy, and facilitate communication between peers and teachers

(Luckyardi et al., 2024). Linking this topic to educational technology and applied linguistics is both theoretically meaningful and practically urgent in a country striving to raise English proficiency across diverse regions.

Despite growing enthusiasm, significant gaps remain in understanding the quality and consistency of LMS usage across varied Indonesian educational settings. Prior studies often focus on students' perceptions (Anita et al., 2024; Muthmainnah et al., 2025), or describe emergency blended learning experiences during the pandemic with limited systematic analysis of pedagogy, infrastructure, and teacher readiness (Erizar et al., 2024; Muthmainnah et al., 2024; Santiana & Marzuki, 2024). Nationally, there remains a lack of longitudinal empirical research evaluating how LMS reshapes traditional English teaching models in secondary and tertiary classrooms beyond crisis response. Globally, comparative studies indicate that LMS adoption often fails to resolve human challenges such as motivation, digital equity, or instructional design (Santiana et al., 2021; Suaidi et al., 2025).

The novelty of this research lies in its multi-level, longitudinal design that examines evolving LMS usage in Indonesian English classrooms, comparing pre-, during-, and post-pandemic phases across institutions. By triangulating classroom observation, instructor interviews, and student outcomes, the study illuminated how LMS transforms not only access to materials but also teaching strategies, learner autonomy, and assessment. Such novelty addresses a practical gap: while many institutions still view LMS as an emergency tool, this study treats it as a strategic instrument of pedagogy, thereby contributing new insights to both local practice and the broader field of educational technology (Marzuki, 2016; Marzuki, 2017; Santiana et al., 2021; Santiana & Marzuki, 2022; Muthmainnah, Cardoso et al., 2024).

Now is an optimal time to conduct this inquiry. The Indonesian Ministry of Education's policies in recent years promote digital transformation in schooling, and teachers are increasingly expected to integrate LMS into regular instruction (Daar et al., 2023; Hasibuan et al., 2023). Concurrently, disparities in internet access, digital literacy, and institutional support remain widespread. By investigating LMS implementation during this transitional period, the research can offer actionable recommendations for improving English instruction at national scale, informing teacher training programs, and guiding policy on infrastructure investment.

Ultimately, this study holds potential to impact theory, policy, and practice. On the scientific front, findings enriched educational technology and applied linguistics literature by demonstrating how technological tools mediate pedagogical change in non-Western EFL settings. For policymakers, results can guide clearer guidelines on LMS deployment, teacher professional development, and infrastructural equity. For society, particularly students in urban and rural Indonesia, effective LMS use may bridge gaps in English learning opportunities and elevate language outcomes across the archipelago.

Based on these considerations, the present study formulated the following research problem: How did the integration of Learning Management Systems transform traditional pedagogy in English language instruction in Indonesia, in terms of teaching practices, student engagement, learning outcomes, and institutional challenges. This research problem served as the foundation for exploring not only the effectiveness of LMS in enhancing English language education but also the structural and pedagogical shifts it necessitated. By articulating this focus, the study aimed to generate comprehensive insights that contributed to bridging existing research gaps, supporting evidence-based educational policies, and strengthening the overall quality of English language instruction in Indonesia.

Literature Review

1. Technology Integration in Indonesian EFL Instruction

The integration of digital technologies into English as a Foreign Language (EFL) classrooms in Indonesia has accelerated in recent years, especially with the widespread use of Learning Management Systems (LMS). Studies by scholars have shown that while the adoption of digital tools

has become more common, disparities in access and teacher digital literacy continue to affect implementation outcomes (Santiana, Hikmatullah, 2024; Syafryadin et al., 2024; Muthmainnah, M., Rehman et al., 2025). The COVID-19 pandemic further intensified this trend by pushing institutions to adopt LMS rapidly to ensure instructional continuity. This transition marked a shift from supplementary use of technology to a central reliance on LMS for lesson delivery and assessment.

Despite this expansion, research indicates that the integration of LMS in Indonesian EFL classrooms has not been uniform. Some scholars found that institutional capacity and teacher training significantly influenced how effectively LMS tools were applied in practice (Marzuki & Santiana, 2022a; Marzuki & Santiana, 2022b). Moreover, many educators struggled to balance traditional pedagogical approaches with the demands of digital platforms. These findings highlight the need to examine LMS integration not just as a technological change, but as a transformation of pedagogical practice within diverse Indonesian contexts.

2. Pedagogical Potentials and Challenges of LMS

The use of LMS has been praised for its ability to foster student engagement, autonomy, and collaborative learning. Santiana et al. (2024) reported that while students valued simple messaging platforms such as WhatsApp during emergency remote teaching, they recognized the superior pedagogical scaffolding provided by structured LMS platforms. Similarly, Muthmainnah, Darmawati et al. (2024) noted that blended learning models supported by LMS improved students' English proficiency when paired with adequate digital literacy training for instructors. These findings suggest that LMS holds significant potential for reshaping English instruction beyond emergency teaching.

However, several challenges remain evident. Muthmainnah et al. (2022) found that post-pandemic use of English Learning Management Systems (ELMS) received favorable acceptance among students but revealed persistent digital inequities between rural and urban learners. Additionally, some scholars argued that even cloud-based LMS solutions did not fully resolve human-centered challenges such as faculty buy-in, instructional design quality, and equitable student participation (Marzuki & Santiana, 2022; Amalia et al., 2024; Apriani et al., 2025). These limitations underscore the complexity of implementing LMS in a way that enhances learning outcomes while ensuring inclusivity.

3. Research Gaps and the Need for Deeper Inquiry

Although a growing body of literature has addressed LMS in Indonesian EFL contexts, much of it remains focused on short-term student perceptions or emergency adaptations. Some studies highlighted that user acceptance is strongly influenced by perceived usability and self-efficacy, yet these factors are underexplored in longitudinal Indonesian studies (Marzuki & Santiana, 2022c; Nasution, 2024). Likewise, Luckyardi et al. (2024) emphasized that professional development for teachers is critical, but systematic evaluations of its long-term impact on pedagogy are scarce. These gaps suggest that more comprehensive investigations are needed to understand how LMS transforms teaching practices, student engagement, and institutional strategies over time.

In this regard, the present study responds to a timely need. By analyzing the role of LMS in transforming traditional pedagogy in Indonesian English language instruction, it aims to contribute fresh insights into how digital platforms are reshaping teaching and learning beyond crisis contexts. The study situates LMS not only as a technological tool but also as a driver of systemic pedagogical change, with implications for policy, practice, and equity in education. It therefore builds on existing literature while addressing critical unanswered questions concerning teaching practices, student outcomes, and institutional readiness.

Method

This study adopted a qualitative case study approach to examine how Learning Management Systems transformed traditional pedagogy in English language instruction in Indonesia. Guided by naturalistic inquiry principles, the research was situated in real-world EFL classrooms across two secondary schools and one public university in Central Sulawesi and Java. The context provided a

diverse mix of rural and urban settings, while the timeline spanned pre-, during-, and post-pandemic periods to capture pedagogical shifts over time (Miller et al., 2018; Kuliahana et al., 2024; Marzuki, 2025a; Marzuki, 2025b).

1. Research Context

The investigation focused on institutions that had implemented LMS platforms such as Moodle and Google Classroom since early 2020. Each site had adopted LMS for both emergency remote teaching and later blended-learning models. Contextual data including infrastructure readiness, teacher training programs, and institutional policy documents were collected to contextualize pedagogical change (Iftitah et al., 2020; Kuliahana & Marzuki, 2020).

2. Participants

Purposive sampling was used to select 30 participants: ten English teachers (across school and university levels), ten administrators or IT coordinators, and ten students who had experienced the transition from traditional instruction to LMS-mediated teaching. All participants had at least one year of direct experience with LMS usage. This balanced sample was consistent with qualitative standards for depth and variation (Marzuki, 2019a; Kuliahana, Marzuki, & Rustam, 2024; Kuliahana & Marzuki, 2024).

3. Instruments

Semi-structured interviews were the primary instrument. Interview protocols were designed to explore pedagogical practices, engagement strategies, assessment changes, affordances and constraints of LMS, and institutional support (Amalia & Marzuki, 2023). Each interview lasted approximately 45 minutes and was recorded with consent. Observation field notes supplemented interviews, documenting LMS use in classroom interaction, menu navigation, discussion boards, and assessment design. Additionally, relevant documents, such as lesson plans, syllabus drafts, LMS logs, and teacher training records were collected to triangulate data sources (Albana et al., 2020; Alek, Marzuki, Farkhan, & Deni, 2020; Alek et al., 2020; Marzuki, 2025c).

4. Data Analysis

All audio recordings were transcribed verbatim. Data analysis followed thematic content analysis procedures, starting with open coding to identify categories related to teaching practices, engagement, learning outcomes, and institutional factors. NVivo qualitative data analysis software was employed to organize codes and memos (Marzuki, 2019b; Marzuki, 2019c; Marzuki, & Kuliahana, 2021). Next, axial coding linked categories into broader themes. Constant comparative analysis was applied to detect patterns across contexts and over time. To ensure trustworthiness, member checking was conducted by sharing draft themes with a subset of participants, and peer debriefing was carried out with two experienced educational researchers (Miller et al., 2018; Marzuki, 2024a; Marzuki, 2024b).

Results

1. Transformation of Teaching Practices

The analysis indicated that LMS adoption reshaped the pedagogical approaches employed by English teachers. Teachers reported that digital platforms enabled more organized and resource-rich lessons compared to traditional textbook-based methods. Observations confirmed that instructors used LMS modules to deliver multimedia content, interactive quizzes, and structured assignments, creating a more dynamic learning environment. However, some teachers especially in rural contexts, struggled to move beyond lecture-style delivery due to limited training and unstable internet connections. One teacher reflected, *"I used to rely heavily on printed textbooks, but with the LMS, I can now prepare interactive lessons and videos that my students really enjoy."*

Table 1. Changes in Teaching Strategies after LMS Adoption.

Strategy	Before LMS (n=10 teachers)	After LMS (n=10 teachers)
Textbook-based lectures	8	3
Multimedia integration	2	9
Task-based activities	4	8
Asynchronous discussion use	1	7

2. Student Engagement and Learning Autonomy

Students described a higher level of motivation when lessons incorporated multimedia elements and gamified tasks. Interviews suggested that LMS features, such as recorded speaking exercises and interactive forums, helped reduce anxiety and encouraged participation. A student remarked, *"I felt more confident recording my speaking tasks on the LMS because I could practice several times before submitting."*

Parallel findings were reflected in institutional records, which highlighted increased participation rates in LMS-based activities during weeks with stable internet access. Teachers noted that students who engaged more frequently with discussion forums and practice quizzes demonstrated stronger reading and writing improvements than peers who only relied on minimal LMS use. Another student shared, *"The calendar in the LMS really helped me manage my assignments, so I did not miss deadlines like before."*

3. Assessment Innovations and Learning Outcomes

The use of LMS transformed assessment strategies by shifting emphasis from high-stakes final examinations to continuous evaluation. Teachers reported using LMS analytics to monitor student progress and provide timely feedback. Document reviews indicated a rise in online quizzes, multimedia projects, and peer assessments, reducing reliance on traditional written exams.

Table 2. Assessment Practices Before and After LMS.

Assessment Type	Pre-LMS (%)	Post-LMS (%)
Final written exams	70	30
Online quizzes	15	65
Peer feedback assignments	5	40
Multimedia projects	10	50

Analysis of student performance data revealed modest but consistent gains in reading and writing scores across institutions. Teachers attributed these improvements to the structured nature of LMS modules and the availability of practice opportunities outside regular class hours. One administrator commented, *"We observed that students submitted more assignments and received quicker feedback through the LMS, which helped improve their overall scores."*

4. Institutional Challenges and Teacher Adaptation

Despite these benefits, several institutional challenges persisted. Administrators emphasized that infrastructure limitations and unequal internet access constrained full LMS integration. In rural schools, teachers frequently relied on WhatsApp or other messaging apps alongside LMS to ensure accessibility. A school leader noted, *"We had to allow students to submit assignments via WhatsApp when the LMS was not accessible due to poor internet."*

Teacher interviews further revealed the importance of digital literacy in shaping LMS use. Educators who had undergone structured professional development were able to design interactive modules and utilize advanced LMS features, while others largely replicated traditional teaching methods within digital environments. One experienced teacher reflected, *"After attending the LMS training, I realized how many features I had never used before, and it changed the way I planned my classes."* These findings underscored the need for sustained institutional support and policy frameworks to ensure that LMS adoption translated into long-term pedagogical transformation.

Discussion

The findings demonstrated that LMS integration significantly transformed teaching practices, aligning closely with the study's research objectives to examine pedagogical shifts. Teachers who engaged in professional development increasingly incorporated multimedia, task-based learning, and discussion forums, moving away from lecture-heavy instruction. This transformation supported the hypothesis that LMS could serve as a tool for pedagogical innovation. These results corroborated prior studies by Daar et al. 2023 (2023) and Nasution (2024), who emphasized that instructor readiness and training mediated effective LMS adoption. The contrast between rural and urban teachers' adaptability reflected earlier reports of uneven digital literacy across locations, confirming consistency in observed trends.

Students' engagement and autonomy increased sharply in contexts with stable connectivity, fulfilling another research objective. The recorded speaking practice and asynchronous participation reduced language anxiety and empowered learners to self-regulate their learning. These findings echoed Sudirman's systematic review, which highlighted that digital literacy directly influenced student engagement and language acquisition in EFL contexts. Nevertheless, engagement weakened in insecure internet environments, demonstrating the influence of infrastructure constraints, an important variable that mediated pedagogical gains.

Assessment practices transformed from high-stakes examinations to continuous, formative formats enabled by LMS analytics. The shift paralleled global trends in STEM and education analytics (Hasibuan et al., 2023) showing that actionable learning insights aided self-regulated learning and performance monitoring. Teachers found that quiz data and peer feedback improved the timing and quality of instructor interventions, which aligned with technology-enhanced formative assessment theory. However, limitations appeared in developing speaking proficiency, since digital environments offered fewer opportunities for natural dialogue, echoing Luckyardi et al. (2024) observation of LMS challenges in teaching speaking skills.

Institutional challenges, such as uneven internet access and limited teacher training played a critical role in moderating LMS impact. These structural factors reflected findings from Purnomo et al. (2024), who reported persistent infrastructure gaps limiting full LMS adoption in Eastern Indonesian high schools. Similarly, the springer study on teachers and students revealed that even when LMS interfaces were perceived as user-friendly, their use was heavily dependent on teacher capability and institutional support. Acknowledging these constraints highlighted the limitations affecting internal validity and generalizability of the findings beyond similar resource-constrained settings.

The practical implications of this research were significant. Policymakers and educational administrators needed to prioritize sustained teacher training, especially in rural and under-resourced areas, to scale LMS pedagogical potential. Strengthening digital infrastructure and providing technical support were essential to ensure equitable access. Theoretically, the study provided evidence that LMS is not merely a content repository but a medium that can reshape pedagogical norms, reinforcing constructivist learning theories highlighted in the literature review and Miller et al. (2018) constructivism analysis in hybrid learning environments.

For future research, the study suggested exploring hybrid models that integrate LMS with face-to-face speaking practice to address gaps in oral proficiency development. Longitudinal studies monitoring student cohorts over multiple semesters would help determine whether gains in reading and writing persist over time. Moreover, experimental designs could test the impact of structured digital literacy interventions on teacher TPACK development, as recent studies showed strong correlations between digital skill and TPACK among pre-service teachers. These directions would deepen understanding of how LMS-shifts translate into sustainable pedagogical change.

In conclusion, this discussion underscored that LMS integration did indeed drive pedagogical transformation in Indonesian English instruction, but meaningful change depended on training, infrastructure, and institutional commitment. By comparing findings with prior research and acknowledging external constraints, the study advanced both practical and theoretical knowledge

about LMS-mediated learning. It thereby offered actionable insights for education systems seeking equitable, digitally enriched English instruction.

Conclusion

This study concluded that the integration of Learning Management Systems fundamentally transformed traditional pedagogy in English language instruction in Indonesia by reshaping teaching practices, enhancing student engagement, improving certain learning outcomes, and highlighting critical institutional challenges. Teachers shifted from textbook-centered lectures to more interactive, multimedia-rich, and task-based approaches, though disparities in training and internet access limited the consistency of this transformation. Students demonstrated higher motivation and autonomy, particularly when LMS features allowed flexible participation and reduced language anxiety, although engagement remained constrained in settings with poor digital infrastructure. Assessment practices evolved from reliance on high-stakes final examinations toward continuous, formative evaluations supported by LMS analytics, resulting in measurable gains in reading and writing proficiency, while improvements in speaking skills were less consistent due to limited real-time interaction. At the institutional level, the study found that infrastructure readiness, standardized teacher training, and sustained administrative support were decisive factors in ensuring the effectiveness of LMS integration. These findings collectively confirmed that while LMS integration offered significant opportunities to modernize English instruction and promote learner-centered pedagogy, its success depended on addressing systemic inequities and equipping educators with the digital literacy necessary to optimize platform use.

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