

Improving Linguistics Skill on EFL Students Using Learning Management System: A Critical Literature Review

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Abstract: This research aimed to present a systematic review of articles discussing the implementation of a Learning Management System (LMS) for English as a Foreign Language (EFL) students and providing recommendations for English Language Teaching (ELT) through LMS in higher education institutions. The approach used was a systematic literature review that applies selection criteria to articles published in reputable international journals indexed in Scopus. The articles were selected either from publications between 2020 and 2022 or during the transition period from the COVID-19 pandemic to the post-pandemic era. The findings of the study indicated that online learning based on LMS offered significant benefits to both students and lecturers. Nevertheless, the implementation of LMS also brought forth several challenges that need to be addressed by institutions, lecturers, and students. The implications of this research have an impact on students' learning experiences and the reinforcement of pedagogical competence among lecturers. Furthermore, these findings contribute to institutional proficiency in managing the learning process efficiently and responsibly, positioning it as an emerging trend in modern education.

Keywords: EFL students, Learning Management System, LMS, linguistics skill, pedagogical competence

The current advancement of technology significantly influences various aspects of human life. In higher education, the utilization of technology has also undergone rapid development, especially with the emergence of the COVID-19 pandemic (Shanableh et al., 2022; Thapaliya & Hrytsuk, 2023). In fact, this situation has even served as a catalyst for accelerating the adoption of technology in the post-pandemic era (Guppy et al., 2022; Walker & Voce, 2023). Universities worldwide, as educational service providers, have been compelled to innovate to ensure the continuity of learning activities (Makruf et al., 2022). The implementation of a Learning Management System (LMS) has emerged as one solution employed by universities to facilitate interactions between lecturers and students. The LMS also serves to monitor the progress of both faculty and students effectively (Al-Mamary, 2022). This implies that the impact of LMS usage on courses can influence student acceptance rates, highlighting the growing importance of digital learning platforms in shaping educational outcomes.

English language learning among EFL students is undergoing a similar trend. Based on empirical evidence, studies demonstrated that interactive and effective EFL instruction beyond the classroom, such as through the use of an LMS, yielded positive outcomes. EFL students were afforded a more flexible learning environment, enabling them to study at times that aligned with

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their schedules, thereby enhancing engagement and learning motivation (Yüzlü & Dikilitaş, 2022; Zulaiha & Triana, 2023). In this context, empirical facts indicated that EFL students possessing the ability to navigate online learning technology are better equipped to intensively enhance their language skills through LMS utilization. Thus, integrating LMS into English as a foreign language instruction stands as an effective solution to attain improved learning objectives for EFL students.

Learning through technological approaches such as LMS can be reliably believed to influence the linguistic developmental abilities of students. As Yang et al. (2023) explained, EFL students could comprehend information from lecturers and implement these abilities in various contexts as a learning process strategy. It was believed that the capacity to process information virtually is not distinct from offline methods. Lecturers could transmit written messages, similar to jotting down information on a whiteboard. Even in the online realm, both lecturers and students could engage in face-to-face conversations, disregarding limitations of place and time (Arbab et al., 2024; Triana & Zulaiha, 2022). Furthermore, the diverse features within an LMS offer a high level of flexibility to stimulate students' cognitive abilities. In EFL classes, features such as interactive, collaborative, administrative, informative, and evaluative elements can effectively motivate students to enhance their linguistic skills (Bailey et al., 2023). They could communicate with lecturers, access course-related information, work in groups, and easily review provided course materials. Similarly, the proficiency of lecturers in utilizing educational technology holds significant importance. This was believed to greatly enhance students' linguistic capabilities (Dias et al., 2015; Renandya et al., 2023). The creative utilization of instructional features and the structuring of course materials by lecturers play pivotal roles in improving linguistic abilities (Pardos et al., 2023; Rymanova et al., 2015). Especially in online language instruction, lecturers' pedagogical skills in delivering instructional content must be strategic, starting from comprehensive lesson planning, precise implementation of plans, and the ability to effectively evaluate both the learning process and student achievements.

Practitioners have been evaluating this instructional approach with the increasing popularity of utilizing Learning Management Systems (LMS) in English as a Foreign Language (EFL) classrooms. Previous research had predominantly focused on the development of students' linguistic skills (Annamalai et al., 2023), while others highlighted the positive impact of this approach on student learning motivation (An et al., 2023; Mulualem et al., 2022), self-directed learning (Zheng et al., 2023), students' positive perceptions of learning (Zulaiha & Triana, 2023). These findings underscore the effectiveness and potential of this approach, supporting broader engagement in learning to enhance English language instruction for EFL students.

Currently, various credible sources serve as the primary references widely employed in implementing Learning Management Systems (LMS) within the context of EFL. However, their widespread adoption remains limited. Richard (2021) argued that online language learning goes beyond merely delivering knowledge or digital content, it also necessitates careful consideration of affective, pedagogical, and cognitive aspects. Moreover, digital literacy is an essential component in this process (Lien, 2025). This complexity may partly explain the limited implementation of online language learning. This research provides recommendations to stakeholders by examining the challenges and opportunities inherent in the implementation of remote language learning, as previously conducted by the researcher. Therefore, the objective of this paper was to review previous studies on the utilization of LMS in EFL classrooms by conducting an in-depth investigation into the key elements that determine the effectiveness of this approach. The following questions were posed to encompass various relevant literature concerning the research topic and served as an outline for this review:

1. What strategies did lecturers employ when using LMS in EFL classrooms?
2. What were the implications for the development of students' linguistic skills through the use of LMS in EFL classrooms?
3. What were the obstacles to the implementation of LMS in EFL classrooms?

The Use of Learning Management Systems in Language Learning

The empirical exploration of distance language learning has led to a deeper understanding of the effectiveness and potential of Learning Management System (LMS). Through meticulous research and practical experiments, lecturers and researchers delved extensively into the effectiveness of distance language learning (Mardini & Mah'd, 2022; Vidergor, 2023). Besides, by analyzing various modes of instruction, digital platforms, and interaction models, some researchers unraveled the intricate dynamics that influence successful language acquisition from a distance (Tao & Gao, 2022; Wang, 2023). Other empirical researches not only reaffirmed the importance of interactive and personalized content delivery but also underscored the significance of maintaining consistent engagement (Almusharraf, 2024; Bergdahl, 2022) and providing ample opportunities to apply language in real-world contexts (Vilvanathan & Dey, 2024; Zheng et al., 2023). Thus, previous research has proven to be a clear guide to the opportunities for utilizing an LMS in language learning in the future.

In the digital era, technology plays a crucial role in transforming education, particularly in facilitating online language learning. The Learning Management System (LMS) is a specialized platform exclusively focused on remote educational activities (Furqon et al., 2023; Martins et al., 2023). This platform is designed to provide a structured and organized digital learning environment, enabling educational institutions to manage, distribute, and track learning materials (Cassels, 2024; Sanchez et al., 2024). Once this web-based application becomes accessible to the university domain affiliates, lecturers can play a role in creating, delivering, moderating, and facilitating academic content (Murad et al., 2022). Lecturers are presented with numerous learning media features tailored to their preferences. In its utilization, LMS provides a unique experience compared to other online learning methods, enhancing student engagement based on feedback (He & Wang, 2024). However, while empirical exploration has provided valuable insights, challenges also arise in the implementation of distance language learning using LMS (Makruf et al., 2022; Meirovitz et al., 2022). Aspects such as self-motivation, time management, and limitations in technology access often become hurdles that need to be overcome (Zhang et al., 2023). Therefore, this research has also spurred the development of strategies to maximize the potential of distance language learning, including approaches that enhance learner engagement and address practical constraints that may arise.

Numerous studies have emphasized the growing role of technology in education, particularly in enhancing student engagement and learning outcomes. Some research highlighted the significant impact of utilizing digital interaction in online language learning using LMS (Cabı, 2024; Pivkina et al., 2024; Tayebinik & Puteh, 2012). Besides, other researchers explored various ways in which digital platforms can be employed to facilitate interactions between lecturers and students, as well as among students (Setiana et al., 2022; Zain, 2022). Other studies not only emphasized that distance language learning goes beyond the mere transmission of information but also underscored the importance of active interaction, learning motivation (Almarashdeh et al., 2010), self-directed learning (Saleh et al., 2022), and collaboration as central elements in enhancing language proficiency (Ritonga et al., 2024). In other words, distance language learning involves

more than just content delivery; it also promotes active engagement and collaboration, which are crucial for language development.

Generally, challenges in the use of Learning Management Systems are highly diverse. This is particularly evident in developing countries. Several researchers compiled implementation outcomes of LMS, with institutions, lecturers, students, and its infrastructure being the most highlighted categories (Chasokela et al., 2024; Merwe et al., 2023). The aspects of the lack of pedagogical skills among lecturers and students, along with inadequate facilities, were frequently encountered issues (Allam et al., 2024; Allan et al., 2023). In the context of English language learning in Thailand, obstacles such as lecture instruction design and poor internet connectivity hindered online learning with LMS (Aroonsrimarakot et al., 2023). On the other hand, English language learning models still appeared to be a relatively new culture for many individuals (Hoppin et al., 2023). They felt hindered by the new learning model as it requires a lengthy adaptation period. Moreover, the interaction between lecturers and students is considered fundamental in language learning. In Indonesia, the low participation of students in the learning process posed a significant obstacle (Madyatmadja, 2023; Pratolo et al., 2024). Therefore, numerous aspects need to be mitigated to ensure the success of future English language learning using digital media.

In contemplating the challenges and opportunities in the era of technology, a thoughtful consideration is required to implement a Learning Management System in the future. Language learning, in reality, does not necessarily have to take place solely through face-to-face interactions in a classroom, but it can also be conducted online (Hung & Bao, 2023). This approach is essential because nearly all ecosystems that support our lives are intertwined with digital methodologies. Therefore, in its implementation, a critical analysis is needed to ensure that all aspects of language learning are fulfilled.

A Critical Analysis of Language Learning with Learning Management Systems

The implementation of remote language learning necessitates feedback on prior implementations. A critical analysis is required to serve as recommendations for future remote language learning endeavors (Hung & Bao, 2023). This analysis will have implications for lecturers, students, and even institutions. As conveyed by language theorist, Richards (2021) in his research reports, his findings served as a trigger for both lecturers and students to adapt the new era of distance-based language learning. On the other hand, institutions need understanding and awareness that professional development of lecturers plays a crucial role in delivering high-quality education, particularly in equipping lecturers with essential digital literacy skills (Konuralp & Topping, 2023; Zhang & Wu, 2025). This implies that an analysis is required to understand how lecturers, students, and institutions also play a significant role in maintaining the quality of online learning.

In an analysis, specific aspects of online learning need to be carefully considered. Davis (2015) said that a critical analysis of distance language learning involved a thorough examination and evaluation of the methods and approaches used in online language instruction. This type of analysis goes beyond surface observations and delves deeper into fundamental principles, effectiveness, challenges, and potential benefits of online language learning (Alhaider, 2023; Guo & Lee, 2023). The goal is to dissect various aspects that shape distance language education and assess their impact on language mastery by the students and their overall educational experience. Moreover, there are specific aspects that could significantly impact the sustainability of online language classes. Zain (2022) delved deeper into specific aspects in the utilization of digital

technology, instructional media, self-efficacy in language skill development, learning motivation, self-directed learning, and challenges in self-directed learning. He reported the significant impact of distance learning on each of these aspects. Moreover, Tao and Gao (2022) added that one critical aspect of distance language learning involves monitoring the tools and technological platforms used in this process. Similarly, the evaluation can be done by monitoring the user interface, accessibility, and interactive features of online language learning platforms (Hidalgo-Camacho et al., 2023; Lo, 2023). From the application perspective, there is a possibility of potential challenges emerging for users. Therefore, a critical perspective aims to identify whether these tools genuinely enhance the learning experience or unintentionally create barriers, especially for students who might not have the same level of technology access.

Furthermore, critical analysis of distance language learning considers pedagogical strategies employed in virtual classrooms. It questions whether traditional teaching methods are effectively translated to the digital space or if innovative approaches are needed to engage and motivate students (Jensen et al., 2021; Saurbayev et al., 2024; Torre et al., 2024). Additionally, this analysis examines the role of interaction between teachers and students in the virtual setting and how such interactions influence language comprehension, communication skills, and the formation of a supportive learning community (Salih & Omar, 2023). Ultimately, a critical analysis of distance language learning, such as using Learning Management Systems in language education, is crucial for refining the methodologies used and ensuring that students receive robust and effective language education regardless of the physical separation between them and their lecturers (Ovchinnikova et al., 2023). Based on the above literature review, the researcher adopts the previous studies by delving deeper into these aspects, including teaching strategies utilizing LMS, instructional media used in LMS, self-efficacy in language skill development, learning motivation using LMS, self-directed learning using LMS, and challenges in self-directed learning using LMS.

Method

This research employed a systematic literature review, which constituted a structured summary encompassing significant insights derived from specific literature (Carr, 2002). The researcher undertook a selection process for articles that met the inclusion criteria below and subsequently summarized them systematically. The table below outlines the selection criteria for articles based on inclusion and exclusion parameters.

Table 1
Selection Criteria

Criteria	Inclusion	Exclusion
Year of publication	2020-2022	Before 2020
Type of article	Peer-reviewed	Non-peer reviewed
Type of study	Empirical	Non-empirical
Context of study	EFL/ESL context	Non-EFL/ESL context
Research topic	Utilizing LMS	Other
Language	English	Other languages
Quality	Scopus Indexed in quartile 1 to 4	Other indexes and Scopus indexed (non-quartile)

All articles were sourced from fully accessible Scopus databases. These articles were collected by searching the search engine using specific keywords such as “EFL learning” or “EFL teaching,” or “ESL learning” or “ESL teaching,” and “Learning Management System,” which yielded a diverse array of articles from various research studies. Initially, 43 articles were identified in the preliminary search published between 2020–2022 during the transition period from the COVID-19 pandemic to the return to normalcy. Data for this study were collected in February 2023. Subsequently, these articles were screened based on the criteria of article type and study type, resulting in 36 remaining articles. Further selection was then conducted based on the criteria of study context and research topic through comprehensive reading. Out of these, 24 articles discussed the context of ESL or EFL learning/teaching involving the use of a Learning Management System. From 24 articles, a subsequent selection was made based on journal quality criteria within quartiles 1 to 4. In the end, 11 articles successfully passed through this selection process, indicating their alignment with all the established criteria. This ensured that the chosen articles have undergone rigorous review processes.

The following table provides a list of reputable reference journals used as sources for reviewing the articles. Upon compilation of the articles, the researcher describes the findings using several categories such as types of learning media employed, benefits of utilizing LMS, and challenges in LMS adoption. Below is a table that describes the journals ranked according to Scopus quartiles.

Table 2

Distribution of Journal References

Journal's name	Author	Scopus Rank
Education and Information Technologies	(Alotumi, 2022)	Q1
Studies in English Language and Education	(Amin & Sundari, 2020)	Q1
The Electronic Journal of e-Learning	(Alharbi & Khalil, 2022)	Q2
International Journal of Education and Practice	(Vo, 2022)	Q2
International Journal of Education and Practice	(Mostafa & Alghamdi, 2022)	Q3
Theory and Practice in Language Studies	(Mujiono & Fatimah, 2022)	Q3
Explorations in English Language and Linguistics	(Kapranov, 2020)	Q3
Universal Journal of Educational Research	(Irawan et al., 2020)	Q4
International Journal of Early Childhood Special Education	(Awabdeh, 2021)	Q4
Pegem Journal of Education and Instruction	(Al-Sofi, 2021)	Q4
Journal of Language Teaching and Research	(Milad, 2022)	Q4

Findings

The matrix table illustrates the analysis outcomes of the selected articles. The analysis of these articles is determined based on the following criteria: practical benefits, pedagogical implications, and the employed media.

Table 3
Matrix of the Previous Research Studies

Author	Research Title	Participant	Research Topic	Instructional Media
(Alotumi, 2022)	Examining factors influencing graduate students' behavioral intention to utilize the GC platform	23 EFL graduate students	Applying blended learning	Google Classroom
(Amin & Sundari, 2020)	Comparing the use of Video Conference, LMS, or Messenger Application	140 EFL students	Applying a virtual real-time video	Cisco WebEx Meeting, Google Classroom, and WhatsApp
(Alharbi & Khalil, 2022)	Examining the features of three e-learning platforms: Blackboard (BB), Google Classroom, and Zoom.	101 EFL teachers	Applying LMS to enhance language skill	Blackboard (BB), Google Classroom, and Zoom
(Vo, 2022)	Enhancing the learning process and to the development of the learner's communicative competences	47 ESP students	Providing evidence that online well-designed educational tasks	Moodle
(Mostafa & Alghamdi, 2022)	Developing essay writing skills using LMS	31 female undergraduate students	Applying essay skills as a form of creative writing	the Blackboard online platform
(Mujiono & Fatimah, 2022)	Examining the effect of Moodle as a learning management system based on academic flow on EFL learners' writing skills	69 EFL students	Applying an easy writing test and study Work-Related Flow Inventory (WOLF-S)	Moodle
(Kapranov, 2020)	Discussing an empirical investigation that aimed to establish how pre-service teachers of English framed their perceptions of LMS	15 pre-service EFL teachers	Experimenting with essay writing using Canvas	Canvas
(Irawan et al., 2020)	Exploring the obstacles to using LMS-Edmodo on EFL speaking tasks based on the students' perceptions.	10 ESP students	Applying communication game, discussion and the incorporation of role-plays in the language classrooms	Edmodo
(Awabdeh, 2021)	Examine the factors affecting instructors' integration of Moodle into their English classrooms	25 lecturers and 150 students	Applying student-centered learning engagement,	Moodle

Author	Research Title	Participant	Research Topic	Instructional Media
(Al-Sofi, 2021)	Exploring Saudi EFL learners' satisfaction toward LMS	538 EFL students	Applying fully online learning using LMS	the Blackboard online platform
(Milad, 2022)	Applying Computer-Assisted Language Learning (CALL) on learning management system by following the Intended Learning Outcomes (ILOs) of the course.	22 female students and 5 males for the experimental group and 19 females and 3 males for the control group	the Construct active Model using LMS	PowerPoint/Prezi presentations, open-source video/audio links and some software programs (such as Kahoot, Quizlet, and Grammarly), regalia, role plays, banners/poster, charts, notes, cards, mind maps, etc.

Based on the table above, various research topics pertaining to the enhancement of English language skills are explored, with participant numbers ranging from 10 to 538 persons, including both lecturers and students. The following is a descriptive overview of research on LMS in language learning, aligned with the specific topics relevant to the research objectives.

Learning Media Used in LMS

During COVID-19, most researchers focused on studying the usage of Google Classroom-based Learning Management Systems (LMS) (Alharbi & Khalil, 2022; Alotumi, 2022; Amin & Sundari, 2020). Google Classroom was an easily accessible and free instructional medium. By possessing a Google account, users typically gained access to numerous free service features, ranging from email to Google Classroom. Other studies also explored the utilization of Moodle as an LMS. Moodle aided lecturers in implementing foreign language instruction (Awabdeh, 2021; Mujiono & Fatimah, 2022; Vo, 2022). Three studies employed the implementation of the Blackboard application (Al-Sofi, 2021; Alharbi & Khalil, 2022; Mostafa & Alghamdi, 2022), while one researcher assessed the use of the Edmodo application (Irawan et al., 2020).

Furthermore, there were also researchers who discussed the use of the Canvas application (Kapranov, 2020). Additionally, some researchers employed supplementary features to enhance LMS applications. Cisco WebEx Meeting and WhatsApp were utilized to substitute for in-class direct conversations (Amin & Sundari, 2020). The central role of LMS in the teaching of English as a foreign language held immense significance. With its comprehensive collaboration features, LMS enabled students and lecturers to share ideas, experiences, and materials in real time, enriching the learning process. These studies also reported that students could easily engage in online discussions, collaborate on group projects, and access feedback from their lecturers. Furthermore, LMS provided tools for tracking individual student learning progress, allowing

lecturers to offer more targeted and personalized guidance to each student. Consequently, LMS not only facilitated learning but also strengthened overall collaboration and student comprehension.

Strategies for Teaching using LMS

Many teaching methods were implemented by lecturers when utilizing a Learning Management System. The advancement of information technology encouraged LMS users to think creatively. Their creativity was manifested in how they employed LMS for teaching. Lecturers could engage in blended learning while teaching EFL (Alotumi, 2022). It was reported that blended learning was believed to influence students' behavioral intentions. The research also mentioned that various factors influenced this, including habits, performance expectancy, effort expectancy, social influence, facilitating conditions, and hedonic motivation.

The COVID-19 crisis in Indonesia compelled lecturers to experiment with various LMS platforms. Virtual real-time methods were utilized by lecturers for full teaching sessions (Amin & Sundari, 2020). This synchronous approach was employed by lecturers to deliver lecture material in real-time. They engaged in direct interaction to provide tutorials. In their study, researchers attempted to compare the preference levels for different LMS usages.

Furthermore, the COVID-19 crisis also impacted English language instruction in Middle East. In Saudi Arabia, the global crisis compelled lecturers to adopt various e-learning applications (Alharbi & Khalil, 2022). A study conducted across 27 campuses aimed to investigate instructors' perspectives on using e-learning and assess the efficiency of e-learning applications. The study evaluated aspects such as accessibility and usability, efficiency and convenience, communication and interaction, teacher attitude and satisfaction, and the e-learning experience during the COVID-19 pandemic. However, this study did not delve into the teaching methods employed when using e-learning.

Research during the COVID-19 spread was also conducted in Vietnam. Researchers experimented with a specific teaching method for ESP (English for Specific Purposes) students focusing on business English. Well-designed educational tasks were provided to enhance English language skills (Vo, 2022). This approach aimed to equip ESP students with the ability to engage in interactive workplace conversations. Lecturers conducted communication simulations based on workplace scenarios, delivering context-appropriate responses. Through this method, students were expected to become adept at building communicative interactions, both orally and in writing.

Self-Efficacy in Language Skill Development

Research conducted by these scholars revealed varying findings. While some studies showed positive and significant outcomes, others produced less significant results, highlighting inconsistencies in the research. For instance, Amin and Sundari (2020) found that an LMS with supporting tools could help students learn English effectively. However, its utilization did not yield a maximal impact. Similarly, Alotumi (2022) found that the use of an LMS was primarily driven by habit, while factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions had no significant influence.

On the other hand, another research yielded different results. Alharbi and Khalil (2022) stated that learning English through the use of LMS had a significant impact in certain countries. Google Classroom-based LMS was effective in developing nations, while Blackboard-based LMS had a positive effect in advanced economies. These findings contrast with the research conducted

by (Vo, 2022), who conducted their study at the University of Economics in Ho Chi Minh City. Vo stated that Moodle-based LMS greatly assisted ESP students in enhancing their English language skills. Students were supported through interactive activities aimed at improving communication skills within workplace contexts.

A study involving the utilization of LMS at a higher education institution in Saudi Arabia yielded significant results. An experiment involving the construction of digital content in literary essays was conducted and shown to enhance students' writing creativity (Mostafa & Alghamdi, 2022). Another experimental study produced similar outcomes. Mujiono and Fatimah (2022) reported that students felt capable of improving their language learning skills, developing metacognitive awareness, and fostering autonomy in their learning endeavors. Furthermore, Moodle-based LMS proved to be effective in enhancing writing skills.

The perspective of lecturers using LMS could mirror the effectiveness of student learning. Kapranov (2020) explained that lecturers exhibited a more positive framing when employing LMS in English language instruction compared to those using conventional methods. The lecturer's voice also reflected something specific about students' self-efficacy. Students felt more confident in their ability to navigate learning tasks independently. Moreover, Awabdeh (2021) emphasized that Moodle promoted student-centered learning engagement. Interactive tools such as discussion forums and quizzes were reported to enhance student participation. The use of LMS also provided lecturers with the opportunity to track students' progress and participation in greater detail, thereby aiding in understanding individual learning needs. Therefore, the integration of LMS in English language instruction not only enhances student engagement and self-efficacy but also empowers lecturers with valuable insights into learners' progress.

However, perspectives on LMS usage in higher education also revealed negative results. Studies found that LMS required stable internet connectivity for language classes, emphasizing speaking skill improvement to function effectively (Irawan et al., 2020). Similarly, other research observed that, in addition to technical support, LMS-based English language learning relied on university-provided facilities and services (Al-Sofi, 2021). This highlighted the presence of several variables influencing students' self-efficacy in EFL learning. Although LMS offered many advantages, technical challenges and infrastructure impacted students' learning experiences. Therefore, educational institutions needed to ensure the availability of adequate resources to support online English language instruction.

Learning Motivation Using LMS

Research outcomes on learning motivation using LMS vary widely. Alotumi (2022) stated that behavioral intention in using LMS could increase when students were stimulated with habits. This was characterized by their positive perspective when using the LMS platform, such as interacting with lecturers and reading feedback. Furthermore, lecturers' feedback was believed to enhance student motivation in learning (Vo, 2022). On the other hand, learning through conferencing tools could prompt students to be more responsive to learning (Amin & Sundari, 2020). Students perceived these sessions as resembling offline classes, which encourages their prompt participation in the online sessions.

An intriguing aspect emerges from studies utilizing multiple platforms. Among various applications like Blackboard, Zoom, and Google Classroom, only Google Classroom was found to boost student motivation (Alharbi & Khalil, 2022). Google Classroom was a highly familiar platform for students. They found this application to be effective in improving language skills

despite its limited features. In contrast, in the research conducted by Mostafa and Alghamdi (2022), EFL learning with the Blackboard application increased students' motivation to express ideas and thoughts with peers and instructors. The study by Mujiono and Fatimah (2022), presented a different finding. The Zoom application managed to motivate students to enhance both their English language skills and metacognitive abilities. Students were reported to effectively engage in self-directed learning outside of the classroom. Studies involving other applications like Canvas, as carried out by Kapranov (2020), also provided positive perspectives. Although not showing a direct increase in learning motivation, this perspective implicitly indicated that the application significantly aided students in learning English.

Research involving the implementation of the Edmodo application by Irawan et al. (2020) yielded different results. Students were less motivated to learn English due to the heavy load of assignments. Moreover, poor internet connectivity greatly affected students' performance. Using the Moodle application could promote student-centered development. Research conducted in Jordan indicated that LMS platforms like Moodle contribute to more positive perceptions of learning English, enhancing student engagement and motivation (Awabdeh, 2021). The implementation of Moodle-based learning worked well because lecturers allow students to learn wherever and whenever without limitations. This was done to accommodate students facing internet challenges, allowing them to adjust their time and expenses.

Another study investigating student satisfaction using the Blackboard application revealed surprising results. The use of Blackboard could increase students' learning motivation (Al-Sofi, 2021). Considering success, effectiveness, and acceptability, EFL learning with Blackboard can smoothly transitioned from face-to-face to online learning. In this EFL learning, the role of lecturers was significant. As observed in research conducted in Kuwait, lecturers combined LMS with other applications using specific strategies to enhance student learning motivation (Milad, 2022). LMS, when equipped with Computer-Assisted Language Learning (CALL) methods proved that no students failed in the writing exam. This demonstrates the significant role of lecturers in enhancing motivation and English language skills as a Foreign Language at universities.

Self-Directed Learning Using LMS

Self-directed learning of English as a foreign language has become an increasingly popular approach within modern Learning Management Systems. This method offered individuals the opportunity to take control of their learning process without being bound by spatial and temporal constraints (Alotumi, 2022). One major advantage of self-directed learning was its flexibility, allowing students to tailor their study schedules according to their convenience and needs. By utilizing various online resources such as interactive learning platforms, videos, applications, and structured educational content, students gained a profound understanding of the English language and enhance their language skills rapidly (Amin & Sundari, 2020).

In addition to providing flexibility in learning, Alharbi and Khalil (2022) reported that the self-directed learning approach also stimulated the development of self-reliance and self-responsibility in the learning process. This meant that students had to be capable of self-regulation, setting detailed learning objectives, regularly monitoring their progress, and diligently seeking solutions when faced with obstacles. In this manner, self-directed learning not only fostered flexibility but also strengthened valuable self-development skills (Alharbi & Khalil, 2022). Within the Learning Management System, lecturers acted as facilitators, offering guidance, advice, and support when needed (Alharbi & Khalil, 2022; Vo, 2022). However, students' ability to actively

manage their own study time allowed them to develop valuable organizational skills that proved beneficial in various aspects of life.

While self-directed learning in English as a foreign language offered numerous advantages, challenges also arose. Some students struggled to stay motivated and consistent in their studies without stringent external prompting (Kapranov, 2020). Hence, it was crucial for the Learning Management System to provide appropriate support and guidance, such as online discussion forums, virtual tutoring sessions, or individual progress monitoring. Moreover, well-structured curricula and engaging learning materials were necessary to keep students engaged and enthusiastic on their learning journey. Studies showed that LMS in English learning succeeded when focused on enhancing specific language skills. LMS was reported to effectively improve writing skills (Mostafa & Alghamdi, 2022; Mujiono & Fatimah, 2022). Furthermore, collaborative learning also enhanced participation, engagement with lectures, and discipline (Awabdeh, 2021). This approach worked optimally when instructional methods combined both synchronous and asynchronous modes (Irawan et al., 2020). This indicated that the lecturer's role significantly influences self-directed learning, as their guidance in structuring LMS activities fosters student autonomy and motivation. Overall, self-directed learning in English as a foreign language offered manifold benefits to students within the LMS. Flexibility, independence, and self-responsibility were key points enabling students to achieve optimal outcomes in language learning (Al-Sofi, 2021). With the right support and guidance, this system fostered more effective and enjoyable language learning, ultimately aiding students in attaining higher language proficiency and enhancing opportunities in an increasingly interconnected global world.

Problem of Self-directed Learning Using LMS

The utilization of Learning Management Systems (LMS) in English as a foreign language (EFL) learning encountered various obstacles, particularly concerning the aspect of self-directed learning. Firstly, participants lacked the inclination to engage in technology-based learning (Alotumi, 2022). Not all students possessed the ability and willingness to effectively discipline themselves for self-directed learning. Self-directed English learning in EFL classes demanded a higher level of motivation and self-reliance compared to other academic programs, as EFL students were required to actively drive language skills through two-way interaction. Studies showed that the satisfaction levels of EFL students tended to be lower compared to other academic programs (Al-Sofi, 2021). Furthermore, digital literacy among both lecturers and students, technological facilities, and support significantly impacted this satisfaction level.

Secondly, the lack of guidance and support hindered self-directed English learning through LMS (Awabdeh, 2021). While LMS provided access to diverse learning resources, some students required further direction or instructor support to grasp the material effectively. Additionally, in the absence of structured design from lecturers and inadequate guidance, students struggled to overcome the barriers in their self-directed learning efforts (Vo, 2022). Even with excellent methodologies, without meticulous planning, the quality of online learning implementation was compromised.

The lack of intrinsic motivation or feeling pressured in self-directed learning posed significant obstacles (Alharbi & Khalil, 2022). When students lacked enthusiasm for self-directed learning or felt overwhelmed by the demands of education, they tended to experience decreased engagement or neglect opportunities for self-directed learning through LMS. In this context, enhancing motivation and creating a positive learning environment for students was crucial for

lecturers and higher education institutions to implement effective strategies. Moreover, most students perceived LMS as distinct from face-to-face learning and considered this technology to be a challenging platform (Irawan et al., 2020; Kapranov, 2020). This posed a considerable challenge in self-directed learning, as they may felt burdened by online lectures.

Interactions involving feedback, content delivery, assignments, and evaluations were ways in which lecturers enhance learning self-reliance (Mostafa & Alghamdi, 2022). If lecturers engaged infrequently, it impeded self-directed learning. Even studies suggested that in the use of LMS, lecturers tended to adopt a teacher-centered approach, leading to passiveness among students in the learning process (Mujiono & Fatimah, 2022). Self-directed learning could not be separated from students' confidence in mastering the course material. Lecturers played a role in fostering such self-reliance, necessitating interventions within LMS-based learning to enhance self-determination in learning.

Technical Problems Using LMS

The utilization of Learning Management Systems in English language learning as a foreign language encountered several obstacles in terms of technical issues. Firstly, problems related to unstable or slow internet connections disrupted the learning process (Al-Sofi, 2021; Awabdeh, 2021). Students facing this issue struggled to access learning materials, attend virtual classes, and participate in online interactions with lecturers and classmates (Irawan et al., 2020). This hindered their ability to effectively acquire and practice English language skills.

Secondly, technical constraints associated with devices and LMS platforms presented barriers. Not all students had access to adequate devices, such as computers or tablets, to access LMS (Irawan et al., 2020). Some LMS applications were not well-supported by older devices or mobile devices, causing difficulties in accessing learning resources (Alharbi & Khalil, 2022). Furthermore, incompatible software and LMS platforms also posed challenges for students and lecturers in utilizing specific features.

Furthermore, technical glitches or system disruptions in the LMS led to discomfort in English language learning. Issues related to limited accessibility and flexibility impacted learning through LMS (Amin & Sundari, 2020). Some students had limitations in internet access or adequate devices, which hindered their ability to access and participate in online learning (Irawan et al., 2020). Technical disruptions like crashes or platform failures disturbed the learning process and impeded students' access to learning materials. Additionally, technical errors in assignments or exams resulted in confusion or unfair assessment of students' learning outcomes.

Lastly, challenges in effectively integrating LMS technology into English language learning also served as a barrier. Lecturers lacked sufficient technical understanding and skills to optimally use LMS platforms to deliver engaging and interactive learning materials (Awabdeh, 2021). Untrained or technologically uncertain lecturers reduced the effectiveness of teaching and learning through LMS, leading students to prefer face-to-face classes over online instruction. Meanwhile, two other researchers, Kapranov (2020) and Vo (2022), did not report any technical issues related to the use of LMS.

Discussion

Research findings indicated both opportunities and challenges in the implementation of Learning Management Systems within the context of English language education. As stated by

Richards (2021), a profound understanding of the positive aspects and emerging obstacles serves as a crucial foundation for designing strategies that can enhance the efficiency and effectiveness of English language learning in the future. Besides, A critical analysis of English language learning based on a Learning Management System is pivotal in formulating effective recommendations (Hung & Bao, 2023; Jensen et al., 2021). Therefore, in this analysis, the researcher addresses three research questions regarding the utilization of Learning Management Systems (LMS) in language education. Consequently, the resulting recommendations can serve as valuable guidelines for the development of a more advanced English language learning system in the future.

The first research question is related to the strategies employed by EFL/ESL lecturers in utilizing a Learning Management System. Previous research has identified various LMS platforms, such as Edmodo, Moodle, Blackboard, Google Classroom, and Canvas, supported by instructional tools outside the native LMS features as demonstrated in studies by (Alharbi & Khalil, 2022; Alotumi, 2022; Amin & Sundari, 2020; Awabdeh, 2021; Vo, 2022). In delivering direct instruction, lecturers utilized various communication media such as Cisco Webex, Zoom, Google Meet, or even WhatsApp, enabling students to engage more interactively with instructional content, whether through listening or reading. This indicates that previous researchers have predominantly prioritized interaction and collaboration. As other researchers emphasized, interaction or communication served as the core foundation of foreign language learning (Arbab et al., 2024; Salih & Omar, 2023; Yüzlü & Dikilitaş, 2022). This means that active engagement between students and lecturer, as well as peer-to-peer communication, played a crucial role in the learning process. Besides, the use of Open Educational Resources (OER) has also proven beneficial in presenting tangible evidence, allowing students to access resources from online platforms like YouTube, blogs, or journals, as well as offline platforms like PDF files, videos, or others. As Zulaiha and Triana (2023) stated, online meetings enable lecturers to continue providing accurate and valid information through Open Educational Resources (OER). Menzli et al. (2022) also stated that OER can provide real-time data while remaining effective for use. Displaying OER indicated a commitment to accessibility and flexibility in learning, allowing students and lecturers to engage with up-to-date materials without financial constraints. Furthermore, in the assessment process, it can be reported that lecturers could leverage built-in LMS applications, Google Forms, or safe exam browsers to conduct tests, creating a more structured and measurable online learning experience. As Cassels (2024) and Torre et al. (2024) stated, there was no significant difference in conducting assessments online, as lecturers can still administer formative assessments just as they do in traditional learning settings. LMS provides flexibility in the assessment process, allowing lecturers to administer essay or multiple-choice tests more easily. In terms of evaluation, this method offers lecturers the opportunity to measure students' understanding and application of concepts more comprehensively (Nugroho et al., 2021; Zulaiha & Triana, 2023). Thus, empirical analysis indicates that the integration of instructional media within LMS plays a key role in enhancing the effectiveness of online EFL learning, particularly in terms of interaction, material sharing, and student performance assessment (Alfalah, 2023). This application offers various features that enable users to learn interactively and enjoyably. Additionally, users can access its content anytime and anywhere, allowing for flexible learning according to individual schedules. This proves that the Learning Management System can create a positive experience for both lecturers and students (Almusharraf, 2024). With an intuitive interface, even beginners can quickly grasp the functionality of this application. All learning materials are systematically organized, ranging from basic to advanced levels, making it suitable for all skill levels. As Cassels (2024) stated, the Learning Management System is an application that emphasizes a structured design,

making it easy for users to navigate and follow. Besides, through its interactive learning features, users can directly apply acquired knowledge in everyday situations, enhancing their practical language skills. The application not only focuses on the formal aspects of learning but also introduces entertaining elements, making the learning process more engaging and enjoyable (Ferreira et al., 2023; Triana & Nugroho, 2021). Thus, this application serves as a comprehensive solution for the development of language skills for anyone seeking to enhance their abilities easily and effectively. Moreover, using the LMS for evaluation is not burdensome for either lecturers or students.

On the other hand, in the teaching methodology using the Learning Management System (LMS), as revealed in previous research, a variety of strategies adopted by lecturers have been identified to create an effective online learning experience. One such strategy was the blended learning approach, considered a teaching method capable of fostering engagement between lecturers and students (Alotumi, 2022). There were also several lessons utilizing essay writing strategies (Mostafa & Alghamdi, 2022), role play (Irawan et al., 2020), and project-based learning (Milad, 2022) that centered around student engagement. These methods were deemed effective in English as a Foreign Language (EFL) learning, where it could control the level of student engagement, enabling them to learn more actively. On the flip side, the implementation of technologies like real-time virtual video as recommended by Amin and Sundari (2020) allowed students to receive direct instruction, creating a more authentic and immersive learning experience. Lecturers easily delivered evidence-based learning, connecting concepts to real-world situations relevant to the learning theme. These findings align with recent studies indicating that online language learning requires at least interactive discussions (Vilvanathan & Dey, 2024), multimedia integration (Martins et al., 2023), and collaborative projects (Villarreal & Lázaro-Ibarrola, 2022), all of which enhance student engagement and learning outcomes. The similar research findings indicate that the implementation of these strategies has a positive impact on both lecturers and students (Alhasnawi, 2021; Marie, 2021). It was reported that lecturers enhanced the effectiveness of their teaching while students gained a more interactive and engaging learning experience. Thus, the utilization of LMS and blended learning strategies or other strategies not only improves the efficiency of online learning process but also contributes to the enhancement of educational quality in the context of EFL learning.

The second research question is related to the implications for the development of students' linguistic skills through the utilization of a Learning Management System (LMS). It was reported that lecturers could design learning activities that support various aspects of linguistic skills, such as listening activity (Al-Sofi, 2021), speaking activity (Irawan et al., 2020), reading activity (Milad, 2022), and writing activity (Mostafa & Alghamdi, 2022), enabling students to develop their language abilities in a holistic manner. This indicates that the use of a Learning Management System can be adapted to align with language learning objectives (Suriaman et al., 2023). Additionally, the Learning Management System also facilitates the monitoring of individual student progress, allowing for the customization of teaching methods based on each student's needs, thereby further enhancing the effectiveness of language learning. Moreover, self-efficacy in language development through the use of the Learning Management System (LMS) can be reflected in an individual's ability to independently organize, interact, manage, and evaluate their progress. It has been reported that with the presence of LMS, students can access structured learning resources and leverage various instructional materials (Furqon et al., 2023). This confidence can be enhanced through the achievement of small steps in language development, as well as the ability to efficiently utilize LMS features such as discussion forums, online assessments,

and interactive content. Furthermore, feedback has emerged as a crucial element in enhancing self-efficacy in language development through the LMS. Through the feedback mechanism, participants can gain a profound understanding of their progress, identify strengths to enhance and pinpoint areas that still require attention (Jensen et al., 2021; Morrison & Jacobsen, 2023). Constructive responses from lecturers or fellow students can provide valuable guidance to rectify errors, expand vocabulary, or deepen understanding of grammar. Furthermore, the presence of positive feedback can also reinforce participants' confidence and motivation, providing impetus to continually develop their language abilities (Yang et al., 2023). Thus, high self-efficacy can serve as a motivator, accelerate learning, and offer personal satisfaction in language skill development through technological platforms such as LMS.

Regarding the aspect of self-directed learning, the analysis identifies how each platform of Learning Management Systems supports self-directed learning. The findings revealed that LMS could present both benefits and challenges. Suriaman et al. (2023) said that the motivation and strategies of lecturers could enhance self-directed learning. Furthermore, Apridayani et al. (2023) also explained that self-directed learning can occur when students are motivated and have the desire to participate actively in the activity. This ability can impact how effectively students can harness the potential of the platforms to enhance their language skills. On the other side, it was reported that the lack of engagement between lecturers and students significantly affects this aspect. Engagement between lecturers and students cannot be formed without interaction between them. As Makruf et al. (2022) said that communication is the key factor that can impact the ability for self-directed learning. Meanwhile, some students also experienced limitations in access. This also serves as a crucial note that access is another prerequisite for the organized implementation of online learning. As Morrison and Jacobsen (2023) said that the accessibility of learning materials, online tutoring support, and mechanisms for tracking learning progress also influenced self-directed learning. Thus, self-directed learning requires easy access to LMS applications and also two-way communication in the form of feedback or discussion.

The third research question is related to the challenges of teaching language using a Learning Management System. Online English language learning as a foreign language (EFL) through LMS reveals a range of empirical challenges. In the context of self-directed learning, students often faced challenges in self-motivation and effective time management, as the lack of face-to-face interaction with lecturers and classmates can diminished personal responsibility (Al-Khresheh, 2022) and the burden of assignments (Peng et al., 2023). Additionally, difficulties in comprehending complex materials without direct assistance can impede the learning process. In terms of technical constraints, limitations in accessibility and stability of internet networks (Apridayani et al., 2023), digital literacy (Irawan et al., 2020), inadequate hardware (Al-Sofi, 2021), as well as limited technology skills among both students and teachers impacted the quality of language learning. Technical issues like audio or video problems, platform disruptions, and limitations of technology-based interactions also disrupted effective online learning experiences. Therefore, in the endeavor to enhance online EFL/ESL learning, it is crucial to address these challenges through an approach that balances the development of self-directed learning skills with adequate technical support.

Based on the empirical findings above, recommendations can be formulated for users of the Learning Management System to enhance the linguistic skills of EFL or ESL students in higher education. At the institutional level, it is crucial to consider the following recommendations:

- Establishing regulations for the implementation of language learning as the primary choice of the Learning Management System with a student-centered approach.

- Providing pedagogical reinforcement to lecturers regarding the use of the Learning Management System.
- Developing the Learning Management System tailored to the needs of both lecturers and students.
- Exercising control over activities conducted by lecturers and students as a means to ensure the quality of online learning.

Meanwhile, at the instructor level, it is necessary to consider the following considerations:

- Enhancing independent development of pedagogy for technology-based learning.
- Utilizing LMS features that support interaction and collaboration, such as discussion forums and group projects, to encourage speaking and writing practices.
- Providing diverse learning resources, including audiovisual materials, engaging assignments, and context-based activities, can stimulate student interest and participation.
- Offering regular structured feedback can help students understand their strengths and weaknesses in language usage. In addition, lecturers can create formative assessments using LMS features, enabling real-time progress monitoring.

Finally, students need to pay attention to the following recommendations:

- Being actively engaged in discussion forums and collaborative activities provided by the LMS. This opens opportunities for speaking and writing, as well as interacting with classmates.
- Utilizing existing learning resources, including interactive open educational resources, grammar exercises, and online exams, to measure their progress.
- Taking additional courses or modules offered through the LMS, which can focus on specific language aspects, can also be an effective way to enhance linguistic skills.
- Taking the initiative to seek feedback from lecturers or fellow students to continuously improve and refine their language skills.

There are numerous opportunities and challenges in the utilization of LMS to enhance linguistic skills for EFL/ESL students. These opportunities should be capitalized upon, but on the other hand, we must identify potential challenges (Irawan et al., 2020). Teaching with this learning mode should be approached wisely, as it represents a new trend in modern education. In terms of accessibility, language learning through LMS can offer various conveniences for institutions, lecturers, and students. However, all of this requires preliminary requirements, including (1) adequate e-learning facilities, (2) e-learning technical staff, and (3) formal regulations related to online learning (Rifa'i, 2023). This indicates that institutional readiness plays a primary and foundational role in the successful implementation of online lectures using LMS. To address this, a holistic top-down approach can be undertaken by the institution (Merwe et al., 2023). If universities intend to implement this for the first time, it is also necessary to assess the readiness of both lecturers and students. If the majority already feels prepared, it is highly advantageous. However, if only a portion is ready, the institution can consider offering two teaching models. For those who are not ready, they can attend offline classes, while for those who are prepared, they can participate in online classes.

From the students' perspective, the continuity of language learning through the use of LMS requires motivation from the students. Motivation will trigger a conducive and interactive learning environment. This serves as the primary asset in the implementation of online learning. Researchers measured the motivation among students in studying English through online learning. As Zhang et al. (2023) reported that students' learning motivation was determined by factors, such as goal clarity, learning environment, and social interaction. This indicates that the role of the lecturer in creating an enjoyable learning atmosphere is significant in increasing student motivation. Moreover, a study also indicated that there was a correlation between learning motivation and English language proficiency. Students who were more motivated demonstrate better performance in language learning within the classroom setting (Villarreal & Lázaro-Ibarrola, 2022). Further understanding of these researches can offer a fresh perspective that motivated students can enhance interactive learning and also facilitate the achievement of their learning objectives. This implies that it is crucial to prioritize students' learning motivation in the implementation of A Learning Management System to enhance language skills.

Conclusion

The use of LMS also presents opportunities for the language learning and teaching processes. LMS enables English language learning to be accessed from anywhere and at any time, enabling students to study more flexibly. Additionally, this technology-based learning approach can provide diverse interactive learning resources and content, assisting in comprehensive English language mastery. Meanwhile, LMS also provides the challenges. Self-directed English language learning requires motivation to enhance active language skills, which might not reach their optimal level through online learning. Furthermore, motivation sometimes is influenced by the pedagogy of the lecturer. Not all lecturers possess effective pedagogical skills. Furthermore, technical challenges such as unstable internet connections, system errors, or limited device access can also impact the learning experience and active participation of students.

Recommendations regarding the opportunities and challenges of using a Learning Management System (LMS) in teaching English encompass several crucial aspects. Firstly, it is essential to identify and leverage the opportunities offered by LMS, such as increased accessibility to language learning, enhanced social interaction, and efficiency in delivering instructional content. However, alongside these benefits, there is a need to identify and address potential challenges, such as limited access, faculty training in technology utilization, and the necessity for formal rules related to online learning. Secondly, the primary concern is the institutional readiness to conduct online lectures. Recommendations include improving e-learning facilities, providing technical training for teaching staff, and developing policies that support the effective implementation of LMS. Furthermore, students need to cultivate new habits in adopting the use of LMS. By addressing these aspects, it is expected that the implementation of LMS in English language teaching can provide maximum benefits for students and ensure a quality learning experience.

This study has limitations regarding its sources, as only articles from Scopus indexing were considered. The researcher believes that many articles may be available from other popular indexing services such as Web of Science or others. Therefore, future research is expected to review a more extensive range of high-quality articles and also explore learning management systems from other fields of study.

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