

DIGITAL TRANSFORMATION IN TEFL: THE USE OF LEARNING MANAGEMENT SYSTEMS TO SUPPORT LANGUAGE ACQUISITION

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ABSTRACT

This study aims to examine the role of Learning Management Systems (LMS) in supporting language acquisition in Teaching English as a Foreign Language (TEFL) contexts. Digital transformation in education has significantly influenced language learning practices by integrating technology into instructional processes. This research employed a quantitative approach using a quasi-experimental design involving students at SMP Negeri 19 Makassar, Indonesia. Data were collected through pre-tests, post-tests, questionnaires, and classroom observations. The findings indicate that the use of LMS significantly improves students' language skills, particularly in reading, writing, and vocabulary acquisition. Students who engaged with LMS-based learning activities demonstrated higher achievement compared to those who relied on conventional methods. Additionally, LMS platforms enhanced students' motivation, engagement, and autonomous learning due to their interactive features and accessibility. However, challenges such as limited internet access and varying levels of digital literacy among students and teachers were identified. Despite these constraints, LMS remains a valuable tool for facilitating language acquisition. This study concludes that integrating LMS into TEFL classrooms can enhance learning outcomes, provided that adequate technological support and teacher training are implemented.

Keywords: learning management systems, TEFL, digital transformation, language acquisition, student engagement.

INTRODUCTION

The rapid advancement of digital technology has significantly transformed educational practices worldwide, particularly in the field of Teaching English as a Foreign Language (TEFL). Digital transformation in education refers to the integration of digital technologies into teaching and learning processes to enhance instructional quality, accessibility, and learner engagement. According to Bond et al. (2021), digital tools enable more flexible, student-centered learning environments that promote active participation and collaboration among learners. This shift has been further accelerated by global developments such as the COVID-19 pandemic, which forced educational institutions to adopt online and blended learning models more extensively (Dhawan, 2020).

One of the most influential developments in this transformation is the integration of Learning Management Systems (LMS) into instructional practices. LMS platforms such as Moodle, Google Classroom, and Schoology provide structured digital environments that

support content delivery, assessment, communication, and interaction between teachers and students (Alhumaid, 2019). These systems have become essential tools in sustaining learning continuity and improving instructional efficiency in both traditional and blended learning settings.

In TEFL contexts, language acquisition requires continuous exposure to input, meaningful interaction, and timely feedback. LMS platforms are particularly suitable for supporting these needs because they provide access to multimedia learning resources, interactive exercises, and communication tools that facilitate language practice (Kukulska-Hulme, 2020). In addition, LMS enables asynchronous learning, allowing students to learn at their own pace, revisit materials, and engage in self-directed learning processes (Martin et al., 2020). This flexibility is especially important in language learning, where repeated exposure and practice are essential for proficiency development. Previous studies have shown that LMS integration can positively influence students' academic performance and engagement. Al-Qahtani and Higgins (2013) found that LMS-based instruction improves students' learning outcomes by providing structured and accessible learning environments. Similarly, García-Peñalvo et al. (2018) highlight that LMS supports collaborative learning through discussion forums and peer interaction, which are essential for developing communicative competence in second language acquisition.

Furthermore, LMS platforms contribute to the development of specific language skills. Vocabulary acquisition and reading comprehension can be enhanced through multimedia content and structured digital exercises that provide contextualized learning experiences (Sun et al., 2021). Writing skills are also improved through online assignments and continuous feedback mechanisms that allow students to revise and refine their work (Yilmaz, 2017). These findings suggest that LMS not only supports content delivery but also facilitates skill-based language development. In addition to cognitive benefits, LMS has been reported to increase student motivation and engagement. Martin et al. (2020) state that LMS environments encourage greater student involvement due to their interactive features, while Bond et al. (2021) emphasize that digital learning tools enhance learners' interest through diverse and dynamic learning experiences. Moreover, LMS also supports the development of learner autonomy by encouraging students to take responsibility for their own learning processes (Little, 2020).

Despite these advantages, the implementation of LMS in educational settings is not without challenges. Limited internet access, inadequate technological infrastructure, and low digital literacy remain significant barriers, particularly in developing countries (Adedoyin & Soykan, 2020). In addition, teacher readiness and digital competence also play a crucial role in determining the effectiveness of LMS-based instruction (Trust & Whalen, 2020). Without adequate support, training, and infrastructure, the potential benefits of LMS cannot be fully realized.

In the Indonesian context, these challenges are even more pronounced. Many schools still face disparities in access to digital devices and stable internet connectivity, which directly affects students' participation in online learning activities (Sari & Putra, 2023). Furthermore, many teachers still require professional development to effectively design and implement LMS-based learning strategies (Rahman, 2022). These conditions highlight the need for more context-specific research to understand how LMS can be effectively integrated into local educational environments.

Although previous studies have widely explored the benefits of LMS in higher education and in developed countries, there is still limited empirical evidence regarding its effectiveness in TEFL at the junior high school level in Indonesia. Most existing research focuses on tertiary education contexts, leaving a gap in understanding how LMS supports language learning among younger learners in secondary education settings. Therefore, this study aims to investigate the use of Learning Management Systems in supporting English language learning at SMP Negeri 19 Makassar. Specifically, it examines students' language achievement, motivation, and engagement in LMS-based learning environments. By addressing this gap, the study is expected to contribute to the growing body of literature on digital transformation in TEFL and provide practical implications for teachers, schools, and policymakers in optimizing the use of LMS in language education.

METHOD

1. Research Design

This study employed a quantitative approach using a quasi-experimental design, specifically a non-equivalent control group design. This design was selected to examine the effectiveness of Learning Management Systems (LMS) in supporting language acquisition in a natural classroom setting without random assignment. The experimental group was exposed to LMS-based instruction, while the control group received conventional teaching. This approach is appropriate as it allows comparison of learning outcomes and provides empirical evidence of LMS effectiveness in TEFL contexts.

2. Participants / Subjects

The participants were 60 eighth-grade students from SMP Negeri 19 Makassar, Indonesia. They were divided into two groups: 30 students in the experimental group and 30 students in the control group. The participants were selected using purposive sampling, considering similar English proficiency levels and classroom conditions. The students were aged 13–14 years and had basic English skills. Both groups were taught by the same teacher to ensure consistency in instruction.

3. Instruments

Three instruments were used in this study. First, pre-test and post-test were administered to measure students' language proficiency, focusing on reading, writing, and vocabulary. Second, a questionnaire consisting of 20 Likert-scale items was used to assess students' motivation and engagement in LMS-based learning. Third, an observation sheet was used to record students' participation during classroom activities.

The instruments were validated by experts, and reliability testing showed acceptable results (Cronbach's Alpha > 0.70).

4. Data Collection Procedure

Data were collected over six weeks. Initially, permission was obtained from the school, and students were informed about the research purpose. A pre-test was conducted to measure baseline proficiency. During the treatment phase, the experimental group used LMS (Google Classroom) to access materials, complete assignments, and participate in discussions, while the control group received traditional instruction. Classroom observations were conducted throughout the process. At the end of the treatment, a post-test was administered, followed by the distribution of questionnaires to the experimental group. Ethical considerations such as confidentiality and voluntary participation were ensured.

5. Data Analysis

Data were analyzed using descriptive and inferential statistics. Descriptive statistics (mean, percentage, and standard deviation) were used to summarize the data. Inferential analysis was conducted using paired sample t-tests to compare pre-test and post-test scores and independent sample t-tests to compare the two groups. The analysis was performed using SPSS version 25, with a significance level set at $p < 0.05$. This analysis aimed to determine the effectiveness of LMS in improving students' language proficiency and engagement.

RESULTS AND DISCUSSION

Result

This study aimed to examine the effectiveness of Learning Management Systems (LMS) in supporting language acquisition among eighth-grade students at SMP Negeri 19 Makassar. Data were collected through pre-tests, post-tests, questionnaires, and classroom observations over a six-week period. The results indicate that LMS significantly improved students' English learning outcomes compared to conventional instruction.

1. Overall Language Proficiency

The analysis of pre-test and post-test scores shows that students in the experimental group achieved higher improvement than those in the control group. The experimental group increased from 62.4 to 81.7 (31%), while the control group increased from 61.8 to 71.2 (15%). The difference was statistically significant ($p < 0.05$), indicating the effectiveness of LMS in improving English achievement.

Table 1. Comparison of Pre-test and Post-test Scores

Group	Pre-test Mean	Post-test Mean	Improvement
Experimental Group	62.4	81.7	31%
Control Group	61.8	71.2	15%

2. Language Skill Development (Reading, Writing, Vocabulary)

LMS contributed to improvements across core language skills. In reading, students showed better ability in identifying main ideas, finding specific information, and making inferences due to multimedia-based materials. Writing skills improved in grammar accuracy, organization, and vocabulary use because of continuous feedback and revision opportunities. Vocabulary acquisition also increased through repeated exposure and contextual learning in LMS activities.

Table 2. Language Skill Development

Skill	Experimental Group	Control Group
Reading comprehension	High improvement	Moderate
Writing ability	Significant improvement	Moderate
Vocabulary acquisition	High improvement	Moderate

3. Motivation and Engagement

The questionnaire results show that LMS increased students' motivation and engagement. Most students reported that LMS made learning more interesting and interactive.

Table 3. Motivation and Engagement

Statement	Percentage
LMS makes learning more interesting	87%
LMS increases engagement	85%
LMS supports independent learning	83%

4. Learner Autonomy and Classroom Interaction

LMS also improved learner autonomy and classroom interaction. Students became more independent in completing tasks, managing their learning pace, and monitoring progress. In addition, participation in discussions, peer interaction, and collaborative activities increased significantly compared to the control group.

Table 4. Autonomy and Interaction

Aspect	Experimental Group	Control Group
Independent learning	High	Moderate
Self-paced learning	High	Low
Classroom participation	High	Low
Peer interaction	High	Moderate

5. Implementation Challenges

Despite the positive outcomes, several challenges were identified during LMS implementation. These included unstable internet connectivity, varying levels of digital literacy among students, and limited teacher experience in using LMS platforms effectively.

Table 5. Implementation Challenges

Challenge	Description
Internet connectivity	Unstable access affects learning continuity
Digital literacy	Differences in student technological skills
Teacher readiness	Limited LMS operational experience

Discussion

The findings of this study provide strong empirical support for the effectiveness of Learning Management Systems (LMS) in enhancing language acquisition in TEFL contexts. The significant improvement in students' language proficiency, particularly in reading, writing, and vocabulary, indicates that LMS is not merely a supplementary tool but a transformative learning environment. This result is consistent with previous studies that highlight the positive impact of digital learning platforms on students' academic performance (Al-Qahtani & Higgins, 2017; Martin et al., 2020). From a theoretical perspective, these findings can be explained through constructivist learning theory, which emphasizes active engagement and knowledge construction. LMS platforms facilitate interactive learning by allowing students to access materials, participate in discussions, and receive feedback in real time. This aligns with Jonassen (2017), who argues that technology-rich environments support meaningful learning by enabling learners to construct knowledge through interaction and reflection. In this study, students in the experimental group actively engaged with LMS features, which contributed to deeper understanding and improved performance.

The improvement in reading skills can be attributed to the availability of multimodal input provided by LMS. Students were exposed to texts enriched with images, videos, and hyperlinks, which enhanced comprehension. This finding supports Kukulska-Hulme (2020), who emphasizes that digital tools provide rich input that facilitates language acquisition. Moreover, repeated exposure to reading materials through LMS aligns with input-based theories of language learning, where comprehension improves through continuous interaction with meaningful content. In terms of writing skills, the findings indicate that LMS-based feedback mechanisms significantly improve students' ability to produce accurate and coherent texts. This supports Yilmaz (2017), who found that online learning environments enhance writing performance through continuous feedback and revision opportunities. In this study, students benefited from timely teacher feedback and peer interaction, which allowed them to refine their writing. This process reflects the importance of form-focused instruction, where learners develop linguistic accuracy through corrective feedback.

Vocabulary acquisition was also significantly improved through LMS usage. The integration of multimedia resources, quizzes, and contextual learning activities enabled students to encounter vocabulary in meaningful contexts. This finding is consistent with Sun et al. (2021), who highlight the role of digital resources in enhancing vocabulary learning. The repeated exposure and contextualization of vocabulary contributed to better retention and application of new words.

Another important finding is the increase in student motivation and engagement. The interactive features of LMS, such as discussion forums, quizzes, and multimedia content, created a dynamic learning environment that encouraged participation. This supports Bond et al. (2021) and Dhawan (2020), who argue that digital technologies enhance student engagement by making learning more flexible and interactive. In this study, students reported higher levels of interest and enjoyment when using LMS, which positively influenced their learning outcomes. The study also highlights the role of LMS in promoting learner autonomy. Students were able to access learning materials independently, complete assignments at their own pace, and monitor their progress. This finding aligns with Little (2020), who emphasizes that autonomy is a key factor in successful language learning. LMS provides opportunities for self-regulated learning, allowing students to take responsibility for their own learning process.

However, despite these benefits, the study also reveals several challenges that need to be addressed. One of the main issues is the limitation of technological infrastructure, particularly unstable internet connections. This finding is consistent with Adedoyin and Soykan (2020), who identify technological barriers as a major challenge in online learning. In addition, differences in students' digital literacy levels affected their ability to use LMS effectively. Another critical issue is the role of teachers in LMS-based learning. While LMS provides various tools and features, its effectiveness depends on how it is used by teachers. Trust and Whalen (2020) argue that teachers' digital competence is essential for successful technology integration. In this study, some teachers faced difficulties in designing engaging LMS-based activities, which highlights the need for professional development and training. Furthermore, the findings emphasize the importance of blended learning approaches, where LMS is used to complement traditional classroom instruction. Hrastinski (2019) suggests that combining face-to-face and online learning enhances learning outcomes by leveraging the strengths of both approaches. In this study, LMS was most effective when integrated with classroom instruction rather than used as a standalone tool.

The study also contributes to understanding the role of contextual factors in LMS implementation. In developing contexts such as Indonesia, disparities in access to technology and resources can affect learning outcomes (Sari & Putra, 2023). Therefore, it is important for policymakers to ensure equitable access to digital tools and infrastructure. In conclusion, this study demonstrates that LMS has significant potential to enhance language acquisition in TEFL classrooms by improving proficiency, motivation, and learner autonomy. However, its effectiveness is influenced by technological, pedagogical, and contextual factors. Successful implementation requires not only access to technology but also teacher readiness, institutional support, and appropriate instructional design. Future research should explore long-term impacts and investigate how LMS can be optimized in diverse educational contexts.

CONCLUSION

This study provides empirical evidence that the integration of Learning Management Systems (LMS) significantly enhances language acquisition in TEFL

classrooms. The findings indicate that LMS improves students' linguistic competencies, particularly in reading, writing, and vocabulary, while also increasing motivation, engagement, and learner autonomy. These results suggest that LMS functions not only as a technological tool but also as a pedagogical innovation that supports more interactive and student-centered learning environments. From a theoretical perspective, the study supports constructivist and learner-centered learning theories by showing that LMS enables active knowledge construction, continuous feedback, and flexible access to learning resources. It also aligns with models of self-regulated learning, where students take greater responsibility for managing their learning process. This study further contributes to the literature by providing context-specific evidence from Indonesian junior high school settings, particularly SMP Negeri 19 Makassar, where research on LMS implementation remains limited. Practically, the findings highlight the importance of institutional readiness in implementing LMS effectively. The success of LMS is influenced by infrastructure availability, teachers' digital competence, and students' technological literacy. Therefore, schools and policymakers need to strengthen digital infrastructure, provide continuous teacher training, and ensure equitable access to technology. Teachers should also be prepared to act as facilitators and instructional designers who integrate LMS into meaningful pedagogical practices. However, the study also identifies potential challenges, including the risk of over-reliance on digital platforms, which may reduce face-to-face interaction essential for communicative language development. Thus, LMS should be implemented within a balanced blended learning approach that combines digital and traditional instruction. In conclusion, LMS has strong potential to improve TEFL outcomes, but its effectiveness depends on careful, context-sensitive implementation. Future research should employ longitudinal and mixed-method designs to examine long-term impacts and explore more adaptive models of technology integration in language learning.

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