THE ROLE OF TECHNOLOGICAL SYSTEMS IN MANAGING AND EVALUATING THE LANGUAGE TEACHING PROGRAM

Lalita Vistari[*1], Rudi Hartono[*2], Melfa Lamria Berliana Lumbantoruan[*3]
bodhirasmi@students.unnes.ac.id[*1], Rudi.hartono@mail.unnes.ac.id[*2],
melfa.neuro@gmail.com[*3]
English Language Faculty[*1,2], Medical Faculty[*3]
Semarang State University[*1,2], Diponegoro University[*3]

ABSTRACT

Innovative systems are changing modern language education from teaching and assessment to pedagogical strategies. This study explored the extent to which Learning Management Systems (LMS), Computer Assisted Language Learning (CALL) environments, and digital assessment tools impacted the organization and assessment of language programs. A qualitative research approach was utilized, and data was collected from forty participants (educators, learners, and administrators) through semi-structured interviews, anonymized surveys, and document analysis. Feedback from participants indicates that while organizational features of LMS platforms are one of the most utilized components, they are also highly effective (85%) for organizing course materials and communication. CALL tools provide interactive and personalized learning experiences (rated at 78%) but require better teacher training and technical know-how. Digital assessment tools are efficient (65%) for assessing language skills, but face challenges with evaluating nuanced language skills, such as fluency and creativity. The text emphasizes the importance of hybrid assessment methods that blend automated feedback with human input. Despite challenges like software issues, hardware access, and limited training, technology has enhanced learning and teaching. The study calls for thoughtful integration, continuous instructional design, and stronger teacher training, alongside improvements in infrastructure to support a more flexible, student-centred education system.

INTRODUCTION

The integration of technological tools into modern education systems has grown in importance, particularly in language instruction. This shift is not merely an enhancement of the current frameworks; it is a departure from the conventional approaches to instruction, assessment, and the overall learning continuum. Due to the rapid pace of technological advancement, there has been a swift transition to Learning Management Systems (LMS), Computer-Assisted Language Learning

(CALL) frameworks, and other forms of electronic assessment. Such tools have nowadays become an integral part of the teaching process, transitioning from auxiliary to core assets that sustain and enrich traditional teaching while bringing about captivating and innovative ways for learners to master language acquisition. The current study focuses on the systematic planning and evaluation of a language teaching curriculum utilizing technological systems, particularly Learning Management Systems in conjunction with CALL, examining accessibility, engagement, instructional effectiveness, and their interplay with learning outcomes.

The advent and ongoing use of Learning Management Systems (LMS) have undoubtedly made them pivotal components in contemporary educational settings. These sophisticated systems serve as centralized core infrastructures through which educators manage and disseminate course materials, facilitate communications with students, and systematically monitor and assess collective as well as individual academic progress (Adzharuddin, 2013; Annamalai et al., 2021a; Kasim & Khalid, 2016; Lonn & Teasley, 2009; Renzi & Klobas, 2011). In the more precise domain of language instruction, language teaching practitioners have the advantage of using the LMS platforms as they serve an important and unique purpose of organizing and managing a large volume and wide range of materials and resources, which include rich multimedia resources such as audio and video files, interactive self-assessment quizzes, collaborative discussion forums, and sophisticated systems for the submission of structured assignments. With the aid of LMS, instructors are able to foster and maintain a highly structured and meticulously organized learning environment that supports real-time (synchronous) and self-paced (asynchronous) learning. Such flexibility broadens the reach of education, making it accessible to a wider and more diverse student population, including those from different geographical locations.

Additionally, these systems provide educators with detailed, actionable information concerning student progress, which helps in determining the precise moments actionable instructional shifts or targeted assistance is required (Annamalai et al., 2021b). These advanced capabilities are very useful in offering the kind of personalized learning that is especially important in the teaching of languages, which depends on sustained, appropriately benchmarked engagement and exacting feedback that ensures the success and continued advancement of the learners.

Simultaneously with the emergence of Learning Management Systems (LMS), CALL (Computer-Assisted Language Learning) has become one of the vital elements in the sphere of contemporary language teaching. CALL applications are designed to enable learners to interact with different language skills using special computer software. Such software applications often encompasses rich audio-visual materials, video clips, and numerous other activities. These tools help to integrate the traditional teaching methods with the modern digitized methods of teaching. These tools enable learners to exercise language skills at their personal levels and in accordance with their individual preferences, even during non-conventional hours. A wealth of studies has shown that the proper use of CALL tools strengthens the active participation of learners and boosts their intrinsic motivation, which can result in markedly enhanced language learning in (Rahmati

et al., 2021; Soltani & Mohseni, 2023; Zhang & Wang, 2016). The adaptability in design of CALL platform is one of the factors that motivates learners of different levels and abilities and permits deeper learning.

These platforms provide a wide variety of language activities that aim to develop important language learning elements like authentic listening, speaking, reading, and writing at advanced levels. Through this focus, the language learning process becomes more personalized and efficient (Smith & Craig, 2013; Wang & Kabilan, 2024; Zhang & Wang, 2016). The great flexibility and wide availability of CALL tools enable learners to go far beyond the school setting, making additional practice of the language accessible and greatly enhancing the pace at which they achieve mastery. Within the systematic approaches to modern language teaching, the role of digital assessment is yet another must-have component. As with other aspects of language acquisition, these tools allow learners to be assessed in different and oftentimes more effective ways, making communication with learners more meaningful in relation to the feedback provided. For instance, numerous assessment methods are available. Portfolios that include artefacts of learners' work, as well as automated quizzes that provide instant feedback, deeply ingrain the importance of self and peer assessment. Automated feedback also builds evaluation and reflection. This feedback captures what's being assessed and the automated feedback provided is not only prompt but also actionable. Language learning, self and peer evaluation, along with course feedback, has shown considerable advantages with continuous assessment (Chen & Zhao, 2022; Darmawansah et al., 2025; Ghazinejad et al., 2021; Ljubojević et al., 2023; Mahmud & Wong, 2022; Memon et al., 2024; Veglianti et al., 2023). Digital tools that provide users with comprehensive feedback and evaluation have proven to enhance the assessment process. Enhanced assessment tools provide learners with diverse evaluation preferences that are interactive, thus, offering a more comprehensive and accurate assessment of their language skills (Fan, 2014; Qiao & Zhao, 2023; Rahmati et al., 2021). This shift is a considerable advancement toward agile evaluative and feedback frameworks. Evaluative and feedback frameworks that are automatic rely on digital structures, as opposed to the static frameworks that pre-digital assessment methods relied on.

It goes without saying that the integration of technology in Language Learning brings a host of advantages, yet there are still unresolved issues that require further consideration. Some of the more prominent and pertinent hurdles that come up with an information communication technology (ICT) integration would be digital attention span issues, the need for educator's professional development, and so on. The adoption of digital technologies, which is nowadays more widespread and partly ubiquitous, has the potential for diversions and distractions from the core educational objectives, which in this case is the language acquisition (Asad et al., 2021; Hwang et al., 2024; Wang & Xue, 2024). Moreover, for the effective utilization of these advanced digital technologies, instructors need to go through systematic professional development which train and equip them with the required pedagogical and technologic acumen to meaningfully integrate these devices into instruction (Soltani & Mohseni, 2023). The problems that have been identified emphasize the need for persistent engagement in the language technology

intersection problem, policy shift, and information system that truly enrich and improve language education and technology with continual and systematic plan of alternation instead of calling these devices unessential augment and blind additions.

The significance of this research stems from the dual lenses of academia and practice during a period of rapid technological development and the globalization of education. This study expands the growing body of literature in educational technology and second language acquisition. It focuses on the roles of learning management systems (LMS), computer-assisted language learning (CALL), and digital assessment technologies to investigate how educational technology enhances learning in order to refine theoretical frameworks regarding the technology learning interface. It has been said that research focuses on a broad range of issues from a macro perspective and quantifies "the impact" of technology on education and fails to explore the perceptions of the participants of this process. This research aims to tell the "macro" story of technology in education by embedding the "micro" experiences of the people involved in the process. The qualitative insights capture the realities and the theoretical models that explain the integration of technology in language learning. The research also has its own contribution by bringing to light discrepancies and debates within the literature, like the debate on the balance between efficiency and human need in the automated processes of evaluation. The study aims to detail all the controversies to set a path for future research within the scholarship.

This study has important practical implications for organizations, institutions, policymakers, and developers. Their understanding of the effectiveness and challenges posed by Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL) systems, and digital assessment tools can aid strategic funding decisions and targeted professional development for educators. For instance, the effectiveness of LMS for course organization and communication benefits strongly suggests continued investment. Meanwhile, digital assessment's limitation for nuanced skill evaluation suggests the need for technologically driven blended models that also incorporate human assessment. The study also addresses the gaps in teacher training and digital disparities that need to be addressed to fully realize benefits.

Azwar's & Jayanti's (2025) prior work, specifically the psychological dimensions of students' wellness vis-à-vis digital tools, demonstrates that interactive feedback aids anxiety relief and motivation enhancement among students. Nevertheless, his work raises the warning of digital fatigue and stress from constant online assessments, clearly indicating the need for human-centered technology in learning. In the same context, Sa'adah's et al. (2025) studies on AI-empowered tools for computer-assisted language learning, ChatGPT for example, confirms these tools' ability to provide instant, individualized feedback on students' writing and grammar in real time, albeit with other limitations, such as the absence of real-time pronunciation drills and the rise of learner dependency on instructional technology, advocating for the integration of AI with traditional pedagogical frameworks.

The present study aims to address some of the most critical gaps in the literature. It seeks to analyze more distinctly the numerous advantages and

disadvantages of sociotechnical systems, clarify the controversy concerning the automated systems versus human intervention in the assessment, and analyze what specific types of training are needed for the teachers concerning the use of technology. The main contribution of the study stems from the rich qualitative data gathered from different participants, which include teachers, students, and administrators, thus enabling a comprehensive understanding of the use of technology in language teaching. The central research issue is how to manage and evaluate a language program in a digital environment, with a focus on assessing perceived effectiveness, identifying gaps, and formulating strategies for more effective use of learning management systems, computer-assisted language learning, and digital assessment systems.

RESEARCH METHOD
Research Design
The role of technology systems in the administration and assessment of language teaching programs will be analysed in this study through the adoption of a qualitative research design. The qualitative approach was selected due to the perceptions and experiences that educators, learners, and administrators hold regarding the use of Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL), and modern evaluation techniques. The study seeks to help in understanding the dynamics between technology and language teaching and collecting information regarding its integration and evaluation.

Participants
This study will focus on the language teachers, learners, and school administrators who participate in teaching programs that incorporate technological systems such as LMS, CALL, and digital evaluation tools. This was a diverse sample, as the learners and the educators came from different schools that adopted the technology. A purposive sampling technique was applied, which is justified in the assumption that the subjects will be adequately informed about the technology, as they have sufficient experience with it, to be adequately informed to provide useful information. The sample consisted of 40 respondents, with a balanced distribution of the following: 15 educators, 20 learners, and 5 administrators. This diverse sample can provide different and multiple perspectives to guarantee a balanced understanding on the systems' technological impact.

Research Instruments
Data collection was done through the use of three principal research instruments: semi structured interviews, surveys, and document analysis. Qualitative data was collected through interviews with teachers, students, and administrators. The interviews aimed to understand the participants' perceptions and experiences regarding the benefits and problems of learning management systems, computer-assisted language learning (CALL) systems, and digital assessment tools. In addition to the interviews, questionnaires were administered to capture participants' views on the use of technology for teaching language, so that their responses could be analysed quantitatively. Furthermore, document analysis was used to evaluate the integration of technology in the teaching of languages

through the analysis of institutional reports, course materials, and logs of LMS activities.

Data Collection

The current research required the adoption of various techniques of data collection in relation to the impact of technological systems on language teaching and learning within institutional contexts. Several interviews were conducted with language teachers, learners, and educational administrators to evaluate the impact of Learning Management Systems (LMSs), Computer-Assisted Language Learning (CALL), and digital assessment tools. Such interviews aided in the sophisticated assessment of the widely recognized advantages and disadvantages of these technologies (Creswell, 2014). Also, interviews were supplemented with surveys in order to quantitatively capture the perceptions of educators and learners regarding the significance of digital tools in promoting language learning. Furthermore, I conducted a document analysis of institutional reports, coursework, and LMS logs to assess the implementation of these technologies across educational contexts (Shadiev & Wang, 2022; Soltani & Mohseni, 2023).

Data Analysis

This study employs thematic analysis to explore the impact and use of Learning Management Systems (LMS) with Computer-Assisted Language Learning (CALL) and digital assessments in language teaching. Semi-structured interview transcripts and other qualitative materials, such as institutional documents and member surveys, are coded to reflect the standardized faculty and student perspectives. The qualitative data is analyzed to understand the influence of educational technologies on teaching, engagement, and assessment (Creswell, John W.; Clark, 2018). It also looks into teacher obstacles such as digital distractors, the need for updated teaching strategies, professional training, and other pedagogy shifts (Shadiev & Wang, 2022; Soltani & Mohseni, 2023). These integrated aspects will allow the study to formulate conclusions about the utilization and implications of technological systems in teaching languages.

FINDING AND DISCUSSION

Finding

In the context of the study, subjects such as language teachers, students, and school administrators participated in interviews to express their perspectives on the value of learning management systems (LMS), Computer-Assisted Language Learning (CALL), and other digital assessment technologies. The study adopted a qualitative approach, utilizing semi-structured interviews, anonymized surveys, and documents from the curriculum and evaluation report.

Concerning the three studied technologies, the data suggests variability within the effectiveness of Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL) systems, and digital assessment tools, each having distinct benefits and drawbacks. From the data, it can be interpreted that the respondents evaluated the effectiveness of the tools as follows: LMS, CALL, and digital assessment tools, which exhibited a higher level of variability in user experience. Participants' ongoing assessment surfaced many issues as well as the

value these tools bring to language teaching and their educational implications and restrictive factors.

The research findings indicate that Learning Management Systems (LMS) are the most effective technological tools used in the teaching of languages with an effectiveness score of 85%. Most participants reported the effectiveness of LMS through improvement in the communication and the organization of course materials. These systems serve as an organizational hub where a plethora of resources, including multimedia materials and assignment submission portals, can be maintained in an organized manner. Asynchronous and synchronous teaching and learning are crucial for the greater inclusion of learners. The data indicates that learners value organization, and that structured systems facilitate the instructor in streamlining a documented course, essential when teaching and learning occurs in a structured manner. The research uncovered some persistent challenges that learners are likely to face. For instance, most participants reported experiencing system errors and bugs, and an overall declining learner engagement.

The current findings are consistent with other studies that highlight the importance of providing ongoing help and revisions aimed at the instructional optimization of instructional design within the LMS ecosystem. Comprehensive Learning Management Systems (CLMSs) are not only robust organizational facilities, but they can also become significantly more functional and scalable as a result of proactive assistance and practices intended to ensure enduring learner participation and retention.

Computer-Assisted Language Learning (CALL) tools received an effectiveness rating of 78%, pointing to a strong yet somewhat inconsistent positive effect on the learning experience. The findings constantly emphasize the interactivity and personalization that CALL offers as its primary advantage. Students and other participants valued the ability to interact with language skills through a multitude of multimedia exercises at their convenience and pace, which greatly motivated and benefited them. Teachers pointed out that CALL tools, when properly implemented, have the ability to merge traditional face to face teaching with the emerging digital teaching tools, providing an effective portal through which students can master listening, speaking, reading, and writing skills. On the other hand, the findings also highlighted some important concerns that, if not addressed, would hinder the complete realization of CALL's potential. A predominant worry among participants was the lack of familiarity with the platform, which caused various technical difficulties that, in turn, interrupted the learning experience.

Instructors voiced particular concerns regarding the necessity of refined training that would allow them to integrate advanced technologies into their teaching seamlessly and resolve any issues that may arise in real time. This highlights the idea that the mere presence of technology in the classroom is not sufficient; rather, how successful it is depends greatly on the readiness and technological ability of the instructor using it (Smith & Craig, 2013; Soltani & Mohseni, 2023). Therefore, the research claims that enhanced training for teachers, along with improvements in ease of use, would greatly increase the effectiveness and advantages of usefulness of CALL tools for teachers and students.

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When compared to LMS and CALL, digital assessment tools were rated the least effective with an effectiveness rating of 65%. Participants acknowledged the time-saving efficiency of these tools, especially how quickly evaluation and feedback were automated. Still, the findings indicate a shared perception among participants that the most critical limitation of these tools centres around their rigid frameworks and failure to accurately evaluate nuanced and subjective language skills. Concerns were raised regarding the automated evaluation of more sophisticated skills, such as fluency, pronunciation, and creativity. These are often poorly captured by automated grading systems. Both educators and students were most concerned with this limitation, as they believed such tools lacked the ability to provide a comprehensive and precise evaluation of language skills. The findings of this study bolster the reasoning from more recent literature that emphasizes the merits of computerized dynamic assessment while critiquing the inability to grasp the comprehensive breadth of language learning (Karimpour et al., 2024; Wang & Kabilan, 2024). Consequently, there was a strong appeal from the participants for a hybrid assessment model that effectively balances the rigor of automated feedback with human evaluative insight and subjectivity. As they argue, such a model would go beyond the limitations of purely digital tools, giving a student's abilities far more digital intelligence a more holistic tools account of their abilities.

A Proactive Approach to Overcoming Persistent Barriers as Noted by All Participants Through All Technologies

As noted by participants, there are a myriad of problems including software issues, unequal access to technology, and insufficient professional development opportunities for teachers. The results emphasize the gap between technology and instruction. In order for technology to be integrated successfully, there must be dependable digital infrastructure and comprehensive instructional training that builds teachers' pedagogical and technological skills. This study shows that technology can create opportunities for access and interaction, but its use must be managed in order to mitigate counterproductive digital distractions and frustrating technical issues. The results advance an integrated access vision for technology in education, where technology is not on the periphery but integrated as part of an ecosystem of education that is holistic and personalized. Achieving this vision requires upgrading the educational infrastructure, improving teachers' pedagogical and technological skills, and conducting longitudinal studies on the educational technology ecosystem. These synthesized findings point out to institutions the steps to be taken in advancing their integrated technology frameworks, ensuring digital resources are used to promote and not inhibit language learning.

Table 1. Effectiveness Scores of Technological Tools in Language Teaching

Technology	Effectiveness Score (%)	Key Benefits	Challenges
Learning Management Systems (LMS)	85%	Improves organization, enhances communication, provides structured course materials	Technical issues, maintaining engagement

Computer-Assisted Language Learning (CALL)	78%	Increases interactive learning, supports personalized practice, engages students	Platform familiarity, technical failures, need for teacher training
Digital Assessment Tools	65%	Speeds up evaluation, provides automated feedback	Rigid assessment, lacks accuracy for complex skills like pronunciation and creativity

Figure 1. Learning Management Systems (LMS) showed the highest median score, while CALL, as well as the digital assessment tools, scored lower but showed greater variability.
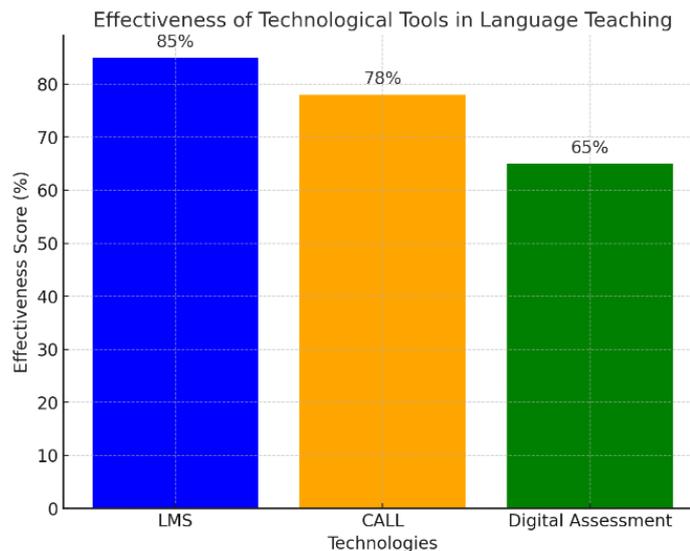
The effectiveness scores for Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL), and Digital Assessment tools, are presented in the bar graph above. The graph shows that LMS has the highest effectiveness score while CALL and Digital AD Assessment tools scores are more variable in nature. First, LMS as the Most Effective Tool (85 percent), primarily because of the ability to organize educational material and facilitate communication. Engagement and some technical issues, however, remain as barriers to optimal use (Annamalai et al., 2021b). Second, CALL Tools offer Strong Engagement but Require Training (78 percent). CALL received mixed reviews. Students found it helpful for interactive learning, but teachers found it difficult to use for instruction because of technical hurdles and unfamiliarity with the platform (Soltani & Mohseni, 2023). Third, Digital Assessments Show Weakness in Evaluating Complex Skills (65%). Efficiency in grading how a learner voices words can, however, negatively impact its evaluation of subjective elements such as fluency and pronunciation. This implies that at least a combination of technology and human evaluation is needed (Karimpour et al., 2024).

In conclusion, while addressing the grading framework, it can be said that the advantages of an LMS in comparison with other systems is its effective content organization alongside superior communication features. CALL fosters learner interactivity, however, course educators need deep instructional design training. Even while holding such a positive stance toward grading as a principle that it helps efficiency, the same can't be said about complex skills such as fluency and pronunciation which owe that to the need for hybrid models. To fully harness and enjoy the technology, training, and even the design of the evaluation perceives need optimization.

Discussion

The impact of technology on education, especially in teaching languages, is clear: it has changed the methods of teaching and the ways in which students learn. Language teaching has greatly benefited because of the structured content and interactive engagement provided through Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL), and assessment tools which also perform automated evaluation. Organizing course materials and aiding communication has made LMS platforms crucial (Shadiev & Wang, 2022). CALL tools promote personalized and interactive learning. However, they require that teachers receive training because of their unfamiliarity with the platforms (Soltani & Mohseni, 2023). On the other hand, digital assessments, while being able to grade tests automatically, lack the ability of accurately measuring fluency and pronunciation in complex languages (Wang & Kabilan, 2024).

These findings reflect the diverse experiences of educators, students, and administrators in the context of technology integration in language education, which reveals its multifaceted nature. The effectiveness score of 85% for learner management systems as the most suitable platform stems from its comprehensive organized course management in addition to its communication facilitation between instructors and students (Kasim & Khalid, 2016). This supports the existing literature which regards learner management systems as indispensable in the effective management of education and the dissemination of learning materials. As pointed out by participants, recurrent problems such as system errors and maintaining engagement over prolonged periods were noted as disengaging students everywhere. These findings underscore the importance of providing prompt technical assistance and regular maintenance to language instruction learners management systems (Annamalai et al., 2021b) so that they can be effectively utilized for instruction instead of merely as stagnant repositories of content.

The effectiveness of CALL systems was measured at 78%, which shows that the system is successful in providing interactive learning environments that enhance student engagement (Soltani & Mohseni, 2023). Scholars recognize these systems as valuable for personalization because learners can acquire language skills through self-paced multimedia exercises (Smith & Craig, 2013). CALL systems are often perceived to be effective because they can adapt to differing learning styles, provide instantaneous feedback, and support self-paced learning. While these systems are perceived to be effective, the study's findings indicated that lack of prior knowledge

to CALL frameworks and recurrent technical problems were the greatest obstacles to fully utilizing the systems. Educators are persistently undersupplied with adequate training and the platforms are not user-friendly, which emphasizes the need for professional development in order for these systems to be fully effective. This adds to the existing dialogue concerning the innovation of technology in education that emphasizes the gap between developed technological systems and the desired integration into teaching frameworks (Shadiev & Wang, 2022).

The evaluation of digital assessment tools yielded the lowest score of 65% effectiveness. This score was impacted by the inability of digital tools to evaluate fluency, pronunciation, and linguistic creativity (Karimpour et al., 2024). Automated grading systems, while beneficial for time and efficiency (Abbood, 2023), do not address the inflexible grading of subjective language components (Karimpour et al., 2024). This result indicates that the digital language assessment has an insufficient approach towards the language competency by measurement of language proficiency. The study strongly recommends the use of hybrid assessment systems that combines digital with human assessment to make measurement of language proficiency more accurate and reliable. This model seeks to use technology's efficiency for the identifiable criteria and complexity that require human assessment done by the technology for subjective criteria, responding complexity linguistic outputs.

A recent study published in WEJ outlines the considerations of digital learning tools and their effects on students learning and academic performance in relation to the educator's digital competency (Sa'adah et al., 2025). This is in line with the current study's findings with regard to the educator's prerequisites in teacher training for the use of CALL tools. In the same context, Sa'adah et al. (2025) analysed the use of gamification and flipped classrooms for the purpose of improving students' involvement and motivation as an example of an innovative digital tool that improves the learning outcomes. It is indeed possible to enhance the process of learning a particular language by integrating CALL and LMS with gamification, as the current research suggests. The findings of this study, together with other studies, reaffirm the increasing recognition of the need for educational technology and the need to shift from traditional teaching.

Research Question 1: How do Learning Management Systems (LMS), Computer-Assisted Language Learning (CALL) environments, and digital assessment tools contribute to the organization, communication, and interactive learning experiences within language teaching programs, as perceived by educators, learners, and administrators?

Learning Management Systems (LMS) enhance the organization of course materials by centralizing and systematically structuring the dissemination of content, submission of assignments, and the overall management of resources, as noted by its 85% effectiveness score. Participants lavished praise on the system's ability to reduce the administrative burden and deliver a well-organized educational framework. With respect to communication, the educator-learner interaction is conducted through discussion and announcement boards, thereby helping to improve clarity and accessibility; information flow through those channels is as

clear and as accessible as the interfaces make it. Computer-Assisted Language Learning (CALL) environments most contribute to interactive learning by giving learners self-paced practice through the use of rich multimedia resources. With a 78% effectiveness score, CALL tools are viewed as very engaging and motivating. Students are able to practice at their convenience, receive instant feedback, and thus, enjoy a personalized learning experience. Digital assessment tools lower the effectiveness score to 65% but the tools are still useful to the learning process by automating feedback, accelerating evaluation. In the context of interactive learning, rapid feedback on performance, though limited in nuanced skill evaluation, aids flexible skill development and adapts to many learning styles.

Research Question 2: What are the primary challenges and limitations encountered by educators, learners, and administrative personnel in the implementation and utilization of these technological systems, particularly concerning teacher training, digital access, and the evaluation of nuanced language skills?

Educators, learners, and administrative personnel in the implementation and utilization of these technological systems encounter multiple challenges when attempting to utilize these technological systems. For example, while structure improves with an LMS, participants reported persistent technical issues such as system errors, as well as problems with maintaining student engagement. For CALL tools, the lack of platform knowledge by both teachers and learners poses significant challenges, revealing an urgent need for specialized educator training (Smith & Craig, 2013; Soltani & Mohseni, 2023). This training gap hinders the utilization of CALL for meaningful instruction. As for the digital assessment tools, the most significant drawback is their rigid frameworks for evaluating language skills that require nuanced assessments, including fluency, pronunciation, and creativity (Karimpour et al., 2024; Wang & Kabilan, 2024). Participants disliked the automated grading systems due to the efficiency with which all subjective elements of language proficiency are graded, which creates a need for blended assessment. Moreover, concerning all technologies, the inequitable and ideal technology integration is fundamentally hampered by disparate digital access and the need for continuous professional development for teachers.

Research Question 3: To propose recommendations for improving the strategic deployment, iterative refinement, and educator preparedness necessary to leverage digital tools to their full potential in language education.

In regard to frameworks that promote fully leveraging technologies in language teaching and learning, I would recommend a few actionable approaches. First, initiatives aimed at digital infrastructure enhancement expect educational institutions to provide appropriate software as well as stable digital systems and internet connectivity to all users (Beckmann & Mahanty, 2016; Rahmati et al., 2021; Usama et al., 2024). This minimizes technical hassles and enhances accessibility. Second, there is a need to focus on refinement and improvement towards systems as they relate to the teaching and learning processes, particularly with regard to CALL and LMS tools. This requires responding to the identified technical problems as well as factors that disengage students and cause the drop in

their participation. This can be described as proactive design changes that come in response to users' concerns. Third, always the most crucial, the respondents stressed that the gaps existing in the training of education practitioners need to be solved and that they need to be provided with gap-filling and updating initiatives. Such initiatives provide teaching practitioners with the technical skills necessary to operate LMS, CALL, and digital assessment tools (Nst & Daulay, 2023; Rahmati et al., 2021; Ranjbaran et al., 2023; Smith & Craig, 2013; Soltani & Mohseni, 2023; Zhang & Wang, 2016). Moreover, the participants to these training programs must be well trained as to the common problems to these tools, online activity to be posed and the advantages and shortcomings of each of the mentioned systems and tools.

Lastly, regarding assessment, consideration Smith & Craig (2013) brought forward resonates, proposing a hybrid model that integrates automated grading and human assessment alongside evaluation automation. This model of assessment is important for capturing all the levels of a student's linguistic and automated grading, particularly for nuanced skills such as creativity and eloquence. This system balances the rigorous and acute precision needed for evaluating current language skills proficiency and ensures efficiency in grading.

CONCLUSION AND SUGGESTION

As noted, technology has changed the teaching of languages for the better by introducing more efficient methods of teaching and evaluating learners, although the learning and teaching of the languages has been disciplines that have utilized technology for years. Some scholars have noted that the effectiveness of Learning Management Systems (LMS) is remarkable, considering their potential for better organization of learning materials and for better interaction between the teachers and the learners (Kasim & Khalid, 2016). Still, the study demonstrated that the language teaching with computers (CALL) and the use of technology for exams, have many unresolved problems, like shifting computer infrastructure and the lack of schooling for the teachers. It is noted that the mixed reviews of CALL are the result of inadequate training that is conducted for the teachers (Kizilcec et al., 2024; Rahmati et al., 2021; Smith & Craig, 2013; Soltani & Mohseni, 2023; Wang & Kabilan, 2024; Yang et al., 2024). Also, these digital evaluation devices, although efficient and convenient, still require some advanced methods for assessing other language skills beyond evaluation of the basic historically concentrated skills that have been taught like spoke, read, and write (Smith & Craig, 2013).

Investing in workshop styled sessions for teachers ensures that they receive adequate training for the seamless application of the Implementation of Computer-Assisted Language Learning (CALL), Learning Management Systems (LMS), and digital assessment tools within their classrooms. Their participation in digital assessment tools work will be beneficial for their professional development alongside for the students learning outcome. Schools should prioritize the implementation of updated educational technology alongside reliable internet connection, and digital tools that are easy for students to use, (Beckmann & Mahanty, 2016; Rahmati et al., 2021; Usama et al., 2024; Wang & Kabilan, 2024). Additionally, a balanced approach to evaluation, combining machine scoring with human marking, is critical in reflecting the full range of the students' language

skills. In their study, Wang & Xue (2024) recommend focusing on the impact of technological tools on language education to help institutions hone their methodologies and ensure technology remains a powerful ally in the enhancement of language learning. Further research should focus on the evolution of digital technologies, addressing the need for enhanced automated assessment tools and preparing educators to confidently adopt cutting-edge digital technology in their classrooms. Optimum language learning will not be fully realized in a situation where these technologies are not systematically and continuously implemented.

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