Journal of Language, Literature, and English Teaching (JULIET), 6(2) (2025)

p-ISSN 2746-0312
e-ISSN 2745-522x
https://ojs.umrah.ac.id/index.php/juliet

"Integrating Mobile Assisted Language Learning (MALL) in English Courses for Vocational Students at Politeknik Negeri Bengkalis: Insights into Benefits and Barriers"

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Received August 27, 2025; Revised September 17, 2025; Published September 30, 2025
https://doi.org/10.31629/juliet.v6i2.7612

Abstract

This study examines vocational students' perceptions of Mobile Assisted Language Learning (MALL) in English courses using a mixed-methods design. Data were collected through questionnaires from 48 students and semi-structured interviews with 12 students and 3 lecturers. Quantitative results indicated overall positive attitudes, with perceived usefulness achieving the highest mean score (M = 4.21, SD = 0.54); 85% of students agreed that MALL made English learning more practical and relevant to professional contexts. Motivation was also highly rated (M = 4.05, SD = 0.61), with 78% reporting greater engagement, while learning outcomes (M = 4.08, SD = 0.59) highlighted gains in vocabulary, pronunciation, and communication. Accessibility received moderately favorable ratings (M = 3.92, SD = 0.73), reflecting both flexible learning opportunities and challenges such as unstable internet and limited device storage. Qualitative findings reinforced these insights, revealing five themes: increased engagement and autonomy through interactive features, enhanced communication via authentic practices, technological constraints, variations in digital literacy requiring training, and the need for institutional and pedagogical support. Overall, MALL is perceived as an effective and relevant approach to vocational English learning, promoting autonomy, motivation, and skill development. However, its full potential requires addressing technological barriers, strengthening digital competence, and ensuring sustainable institutional support..

Keywords: Mobile Assisted Language Learning (MALL); vocational students; English Learners

I INTRODUCTION

The rapid advancement of mobile technologies has significantly transformed the way language learning is facilitated in higher education. One of the emerging approaches within this development is Mobile Assisted Language Learning (MALL), which refers to the use of mobile devices—such as smartphones, tablets, and mobile applications—to support and enhance language acquisition (Kukulska-Hulme & Shield, 2008). MALL enables learners to access learning materials flexibly, practice language skills independently, and engage in interactive tasks beyond the boundaries of traditional classrooms. Unlike Computer-Assisted Language Learning (CALL), which is often confined to desktop-based learning environments, MALL emphasizes portability, immediacy, and contextual learning opportunities, thereby offering learners greater autonomy and mobility (Burston, 2015).

For vocational students, whose learning orientation is typically practical and skill-based, the use of MALL holds particular promise. English proficiency in vocational contexts often requires not only grammatical knowledge but also the ability to use language effectively in real-life, job-related scenarios. Mobile learning tools, such as interactive applications, online platforms, and instant communication channels, provide authentic opportunities for practicing these skills in dynamic ways. In line with constructivist learning theory, MALL supports active, learner-centered engagement where students can construct meaning through interaction, collaboration, and real-time feedback (Hes & Reider, 1985). Recent studies further confirm this perspective: Cavus and Ibrahim (Cavus & Ibrahim, 2017) found that mobile learning significantly improved vocabulary retention among higher education students, highlighted the role of mobile technologies in promoting informal and lifelong language learning (Godwin-Jones, 2017).

At Politeknik Negeri Bengkalis, the integration of MALL into English courses has been introduced as part of an innovative teaching strategy aimed at improving students' language proficiency. The use of mobile platforms not only complements classroom instruction but also extends learning beyond scheduled class hours, supporting ubiquitous learning (u-learning) in which students can access materials and practice anytime, anywhere.

However, despite the evident benefits of MALL in terms of flexibility, engagement, and accessibility, several challenges remain. Issues such as technological readiness, student motivation, and digital literacy often hinder the full effectiveness of mobile-based learning. Previous studies highlight that not all students possess equal access to reliable devices and internet connectivity, which creates disparities in learning outcomes (Kearney et al., 2012) 2012). Moreover, while mobile technologies encourage autonomy, they also demand a higher degree of learner responsibility and time management, which may be difficult for students with limited motivation or digital learning skills.

Therefore, this study aims to examine both the benefits and barriers experienced by vocational students in using MALL in their English courses. By identifying the opportunities that MALL provides as well as the obstacles it presents, the study seeks to contribute to the understanding of how mobile technologies can be optimally utilized in vocational English education. Furthermore, the findings are expected to provide practical insights for educators and policymakers in designing effective mobile-based strategies that enhance language learning in higher education settings.

II METHOD

This study employed a mixed-method research design that combined both quantitative and qualitative approaches to gain a comprehensive understanding of the integration of Mobile Assisted Language Learning (MALL) in English courses. The mixed-method approach was chosen to provide not only measurable data on students' perceptions but also deeper insights into their lived experiences and the contextual

factors influencing MALL implementation. The participants of the study were 48 vocational students enrolled in English courses at *Politeknik Negeri Bengkalis* during the 2024/2025 academic year. These students were selected purposively to represent the vocational education context where English proficiency is essential for workplace communication and professional development.

For the quantitative phase, data were collected through a structured questionnaire consisting of Likert-scale items designed to measure students' perceptions of MALL in four key dimensions: perceived usefulness, motivation, accessibility, and learning outcomes. The questionnaire aimed to capture general trends and patterns in students' attitudes toward mobile-assisted learning and to identify how they perceived the effectiveness of MALL in enhancing their English language competence. Responses were then analyzed using descriptive statistics, including mean scores, percentages, and standard deviations, to provide a clear overview of students' perspectives across the targeted variables.

In addition to the survey, the qualitative phase involved semi-structured interviews with a purposive sample of 12 students and 3 English lecturers. This phase was intended to explore participants' experiences more deeply, uncover nuanced perceptions, and identify both the perceived benefits and challenges in implementing MALL. The interview protocol focused on themes such as learning engagement, technological barriers, digital literacy, and the practical application of English skills in vocational contexts. The inclusion of lecturers' perspectives was crucial to obtain complementary insights into teaching practices, instructional design, and the institutional support required for successful MALL integration.

The qualitative data were analyzed using thematic analysis, which allowed the researchers to identify recurring patterns, categorize responses into themes, and interpret the underlying meanings behind participants' accounts. Triangulation of quantitative and qualitative findings enhanced the validity of the study, ensuring that the results provided a balanced and holistic understanding of MALL implementation in vocational English courses. By combining numerical data with rich narrative accounts, the methodology ensured that both the breadth and depth of students' and lecturers' experiences were captured, thereby offering a robust foundation for the subsequent analysis and discussion.

III RESULT

3.1 Quantitative Findings

The questionnaire responses from 48 vocational students provided valuable insights into their perceptions of Mobile Assisted Language Learning (MALL) in English courses. Overall, the descriptive analysis revealed that students held favorable attitudes toward the integration of mobile technologies as a support tool for language learning. The majority of respondents recognized that mobile applications and platforms not only made learning more engaging and interactive but also offered flexibility by allowing them to access materials anytime and anywhere. Such findings indicate that MALL is perceived as both practical and relevant, particularly in vocational contexts where students often prioritize skill-based, flexible, and workplace-oriented learning approaches.

In addition, students' positive responses highlight that MALL contributes to key aspects of language learning, such as improving vocabulary, pronunciation, and communication skills, while also fostering learner autonomy and motivation. These perceptions align with previous

research emphasizing that mobile technologies enhance self-directed learning and provide authentic opportunities for language practice beyond the classroom. At the same time, students also acknowledged the role of MALL in bridging the gap between academic learning and professional demands, as it allows them to practice communicative skills directly applicable in real-world vocational settings.

Taken together, the descriptive results affirm that vocational students are receptive to the integration of mobile technologies in their English courses. However, these favorable perceptions should be viewed not only as an endorsement of MALL but also as an invitation for educators and institutions to further explore its pedagogical potential. By systematically integrating mobile learning into curricula and addressing technological barriers, MALL can move beyond being a supplementary aid to becoming an essential component of effective language education in vocational programs.

3.1.1. Perceived Usefulness

The findings showed strong agreement regarding the usefulness of MALL in enhancing English competence. This dimension achieved a mean score of 4.21 (SD = 0.54), with 85% of participants acknowledging that mobile-based learning made English lessons more practical and relevant to professional contexts.

3.1.2. Motivation

Students also reported positive levels of motivation, with a mean score of 4.05 (SD = 0.61). Approximately 78% agreed that the use of mobile applications and platforms increased their interest and engagement, as the tools offered interactive and enjoyable learning experiences.

3.1.3. Accessibility

In terms of accessibility, the mean score was 3.92 (SD = 0.73), reflecting moderately favorable perceptions. While 70% of students highlighted the advantage of being able to learn anytime and anywhere through mobile devices, some expressed concerns about unstable internet connectivity and limited device storage.

3.1.4. Learning Outcomes

The results further indicated that MALL contributed positively to learning outcomes, with a mean score of 4.08 (SD = 0.59). Around 80% of respondents believed that MALL supported the development of key skills, including vocabulary building, pronunciation practice, and communication through online interactions.

In summary, the quantitative findings demonstrated that students largely perceived MALL as an effective tool for improving their English learning experiences. Nonetheless, issues of accessibility and digital readiness continued to present challenges in its implementation.

3.2 Qualitative Results

The thematic analysis of semi-structured interviews with 12 students and 3 English lecturers revealed several key themes related to the advantages and challenges of implementing MALL in English courses.

3.2.1. Increased Engagement and Learner Autonomy

Students reported that mobile applications and online platforms encouraged them to become more independent in their learning. Features such as quizzes, pronunciation aids, and interactive exercises made English study more appealing. As one student remarked, “I can practice anytime I want, especially vocabulary, without waiting for classroom time.”

3.2.2. Development of Communication Skills

Both students and lecturers acknowledged that MALL created authentic opportunities for communication practice. Through tools like messaging apps, voice recorders, and online discussions, learners were able to apply English in situations that reflected real-life and workplace contexts.

3.2.3. Technological Limitations

Connectivity issues and device constraints emerged as significant barriers. Several students expressed disappointment over unstable internet connections, while lecturers noted disparities in students' access to adequate devices, which occasionally limited participation.

3.2.4. Differences in Digital Literacy

The interviews highlighted variations in students' ability to navigate mobile learning platforms. Some adapted quickly, while others faced difficulties in using apps effectively or managing their study routines. Lecturers stressed the importance of providing training to build students' digital competence and confidence.

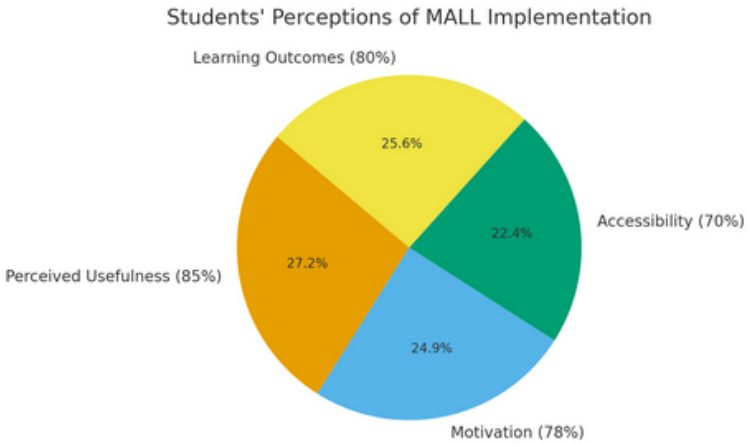
3.2.5. Need for Institutional and Pedagogical Support

Lecturers emphasized that for MALL to be successfully implemented, institutional backing is essential. This includes access to appropriate platforms, structured guidelines, and continuous professional development for educators. Without such support, MALL risks being treated as an optional supplement rather than an integrated instructional approach.

In summary, the qualitative results suggested that while MALL promotes engagement, autonomy, and communication skills, its effectiveness is closely tied to addressing technological barriers, enhancing digital literacy, and ensuring strong institutional support.

IV DISCUSSION

4.1 Students' Perceptions of Mobile Assisted Language Learning (MALL)



The findings from the pie chart align with a substantial body of research on Mobile Assisted Language Learning (MALL), particularly in relation to perceived usefulness, motivation, learning outcomes, and accessibility. The strong endorsement of perceived usefulness (85%) echoes the results of previous studies. For instance, Stockwell (2010) and Miangah & Nezarat (2012) similarly highlighted that mobile devices are regarded as effective tools for language learning due to their practicality, portability, and alignment with learners' needs. These studies confirm that vocational students, who often prioritize applicability in

professional contexts, find MALL particularly relevant. Conversely, some research has reported more cautious perspectives. Burston (2014), for example, argued that while mobile learning projects often show positive short-term outcomes, the long-term pedagogical value is sometimes overstated due to limited scalability and sustainability. This suggests that although the present study highlights strong perceived usefulness, further exploration is needed to determine whether such perceptions translate into enduring learning gains over time. Additionally, Stockwell and Hubbard (2013) noted that usefulness is often mediated by user training and curriculum integration; without these, students may not fully leverage mobile tools for deeper learning purposes.

Motivation, rated positively by 78% of respondents, is another area strongly supported in the literature. Liu et al. (2015) found that gamification, multimedia features, and flexible access embedded in mobile learning significantly enhance learner motivation and autonomy. This finding is in line with Deci and Ryan's (2000) Self-Determination Theory, reaffirming the role of autonomy and intrinsic motivation in driving engagement. Similarly, Cavus & Ibrahim (2009) showed that mobile applications helped students remain motivated by offering immediate feedback and personalized learning. These supportive findings suggest that when mobile learning systems are designed to foster learner agency and enjoyment, motivation can be substantially enhanced. However, not all studies are fully consistent with this result. Some researchers, such as Wang & Smith (2013), observed that while initial motivation levels were high, they tended to decline over time as the novelty effect of mobile tools wore off. Likewise, Burston (2014) highlighted "attrition fatigue," where students lose enthusiasm due to repetitive or poorly contextualized mobile learning activities. This contrast indicates that the sustainability of motivational benefits may depend on continuous innovation, thoughtful task design, and pedagogical integration rather than relying solely on the inherent appeal of technology. Without these, MALL risks being reduced to a temporary engagement strategy rather than a sustained driver of long-term learning.

Regarding learning outcomes, the current findings (80% agreement) align with Kukulska-Hulme & Shield (2008), who emphasized that mobile learning supports authentic and contextualized language practice, thereby promoting retention and communicative competence. Similarly, Viberg & Grönlund (2013) reported that students improved specific skills such as vocabulary and pronunciation through mobile-based practice. These findings resonate particularly well with the vocational context, where communicative competence has direct implications for employability and workplace readiness. Further support is provided by Chen (2013), who demonstrated that location-based mobile learning encouraged students to practice English in authentic settings, leading to stronger skill transfer to real-life contexts. On the other hand, some conflicting perspectives exist. Lan et al. (2013) found that while mobile learning was beneficial for vocabulary acquisition, its impact on higher-order skills such as critical thinking or academic writing was less evident. Similarly, Viberg & Grönlund (2013) noted that while linguistic gains were evident, cross-cultural communication skills did not show equal improvement. These contrasting findings suggest that although MALL is highly effective for immediate and practical skill development, it may require integration with more structured, teacher-guided instruction to ensure comprehensive language proficiency across all skill domains.

Accessibility, which emerged as the weakest dimension in this study (70% favorable responses), reflects challenges noted in broader literature. Teräs (2022) similarly emphasized that digital divides—stemming from unequal access to devices, connectivity, or technical support—can create inequities in learning outcomes. This is particularly relevant in developing contexts, where infrastructure gaps remain a major obstacle. Comparable concerns were raised by Alrasheedi & Capretz (2015), who stressed that technical barriers often undermine the potential of mobile learning despite positive student attitudes. However, contrasting findings can be observed in contexts where digital infrastructure is more robust. For instance, Chen (2013) found minimal accessibility issues in Taiwanese higher education institutions, where government initiatives ensured reliable access to mobile technologies for students. Viberg &

Grönlund (2013) also reported that in Sweden and China, institutional investments significantly reduced access-related disparities. These contrasts highlight that accessibility challenges are not universal but highly context-dependent, shaped by broader infrastructural, socio-economic, and policy frameworks. For vocational students in less advantaged settings, accessibility limitations risk widening the achievement gap, with students from resource-rich environments gaining disproportionate benefits from MALL.

Taken together, the discussion shows that while the present findings are strongly supported by many studies, conflicting evidence highlights areas requiring further attention. Positive perceptions of usefulness, motivation, and learning outcomes reinforce the transformative potential of MALL, especially for vocational students. However, the limitations noted in other research—such as sustainability of motivation, uneven impact across skill areas, and persistent digital divides—underscore the need for cautious optimism. Moreover, studies suggest that MALL should not be treated as a replacement for traditional pedagogy but as a complementary approach that must be embedded within broader curricular and institutional strategies (Burston, 2014; Stockwell & Hubbard, 2013). Future efforts should not only capitalize on students' enthusiasm for MALL but also address systemic and contextual barriers to ensure equitable and long-term effectiveness.

In conclusion, while the findings strongly suggest that vocational students perceive MALL as useful, motivating, and beneficial for their language learning, conflicting evidence in the literature emphasizes the need for sustainable integration, infrastructural support, and pedagogical innovation. These insights point to a crucial implication for policymakers and educators: the success of MALL hinges not only on student perceptions but also on continuous adaptation, resource investment, and curriculum alignment. Only through such systemic support can MALL evolve from a promising trend into a sustainable educational practice that bridges the gap between technological potential and practical vocational outcomes.

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4.2 Benefits and Barriers in the Implementation of Mobile Assisted Language Learning

To further illustrate the students' perspectives on the implementation of Mobile Assisted Language Learning (MALL), the following table summarizes the key benefits and barriers identified from both the questionnaire responses and interview findings. The benefits highlight the positive impacts of MALL on learning engagement, communication, and outcomes, while the barriers reflect the challenges related to technological access, digital literacy, and institutional support.

Table 4. Benefits and Barriers of Students

Theme	Key Findings	Participants' Evidence (12 Students, 3 Lecturers)
Increased Engagement and Learner Autonomy	- MALL encouraged independent learning. - Features like quizzes, pronunciation aids, and interactive tasks increased motivation.	Students (n=12): "I can practice anytime I want, especially vocabulary, without waiting for classroom time."
Development of Communication Skills	- MALL provided authentic opportunities for practice. - Tools such as messaging apps, voice recorders, and online discussions supported real-life use.	Students (n=12) & Lecturers (n=3): Acknowledged that MALL enhanced communication in workplace-like contexts.
Technological Limitations	- Connectivity issues were common. - Device disparities	Students (n=12): Complained about unstable internet. Lecturers

	limited participation.	(n=3): Noted unequal device access among learners.
Differences in Digital Literacy	- Variations in students' ability to use apps effectively. - Some struggled with managing mobile-based learning. - Training needed for digital skills.	Students (n=12): Mixed ability in navigating apps. Lecturers (n=3): Stressed the importance of digital competence training.
Institutional and Pedagogical Support	- Institutional backing is crucial for sustainability. - Need for platforms, guidelines, and continuous lecturer training.	Lecturers (n=3): Warned that without strong institutional support, MALL risks being treated as optional rather than an integral approach.

The present study explored the benefits and challenges of implementing Mobile Assisted Language Learning (MALL) in vocational English education. The findings revealed multiple themes, each of which resonates with yet in some cases diverges from existing research. By comparing these results with supportive and conflicting studies, a more nuanced understanding of MALL's potential and limitations emerges.

A central theme of the study was the increased engagement and learner autonomy afforded by mobile applications and online platforms. Students highlighted features such as quizzes, pronunciation tools, and interactive exercises as more stimulating than conventional classroom methods. These findings echo the results of Stockwell (2010) and Miangah and Nezarat (2012), who similarly found that mobile tools increase learner motivation and provide flexible opportunities for practice. More recent meta-analyses confirm these observations, reporting moderate to strong positive effects of mobile interventions on language learning outcomes, particularly in vocabulary, speaking, and listening skills (Sung et al., 2017; Lin & Lin, 2019). However, not all evidence is uniformly supportive. For instance, Burston (2015) and Chwo et al. (2018) caution that many earlier studies suffer from weak experimental design, with some showing no significant advantage of MALL over traditional methods in controlled vocabulary learning tasks. These mixed results suggest that while MALL can foster autonomy and engagement, its effectiveness depends on careful pedagogical integration rather than the mere adoption of mobile devices.

Another important theme was the role of MALL in strengthening communication skills. Students and lecturers emphasized that mobile tools such as messaging applications, voice recording, and discussion forums created authentic contexts for language use. This finding aligns with research in Computer-Mediated Communication (CMC), which demonstrates that technology-mediated environments reduce anxiety and increase willingness to communicate (Kruk, 2019; Viberg & Grönlund, 2013). Similarly, Godwin-Jones (2017) argues that mobile platforms provide situated opportunities for learners to practice language in real-world contexts, thereby bridging the gap between theory and practice. However, not all studies report such clear benefits. Some investigations note that without structured teacher guidance, mobile-based interactions risk becoming superficial or off-task (Chen, 2013). Thus, while MALL has considerable potential to promote authentic communication, its impact is contingent on instructional design and the presence of facilitative support.

Despite these advantages, technological limitations emerged as a recurring challenge. Students frequently reported unstable internet connections and disparities in device ownership, concerns that lecturers also identified as significant barriers to equitable learning. These findings strongly resonate with research conducted in developing regions, which highlights the persistence of the digital divide (Rahimi & Miri, 2014; Kukulska-Hulme, 2020). Empirical studies suggest that learners with limited access to reliable connectivity or up-to-date devices

are at risk of exclusion, creating stratification within the classroom (Dashtestani, 2016). Conflicting evidence, however, can be found in studies conducted in technologically advanced contexts, where infrastructural support is robust and students report fewer barriers (Liu et al., 2020). This contrast underscores the contextual sensitivity of MALL: its success is not universal but heavily dependent on local infrastructural realities.

A further theme concerned variation in students' digital literacy. While some learners demonstrated high competence in navigating mobile applications, others struggled with technical operations and sustaining motivation without teacher supervision. This variation supports findings from Viberg and Grönlund (2013), who identified digital literacy as a spectrum rather than a uniform skill. Beyond technical ability, scholars such as Hatlevik and Christophersen (2013) emphasize that digital literacy includes skills of information evaluation, time management, and online collaboration all of which affect students' capacity to benefit from MALL. Studies in contexts with limited digital training often report that students underutilize the full potential of mobile tools (Rahimi & Yadollahi, 2011). On the other hand, programs that integrate explicit digital literacy training into the curriculum have documented more consistent learner success (Reinders & Pegrum, 2015). Taken together, these findings highlight the critical role of preparatory training in ensuring equitable and effective participation in mobile learning environments.

Finally, the study highlighted the importance of institutional and pedagogical support. Lecturers consistently argued that student motivation alone cannot guarantee the success of MALL without systemic backing. This echoes calls from Kukulska-Hulme (2012) and Burston (2015), who emphasize that teacher professional development, standardized platforms, and sustainable infrastructure are necessary for long-term success. Studies where such support has been implemented — for instance, through coordinated institutional policies and ongoing teacher training — report that MALL is more likely to be integrated as a core instructional approach rather than as a supplementary tool (Chen, 2013; Viberg et al., 2020). By contrast, where institutional support is lacking, mobile initiatives often result in fragmented and short-lived projects (Stockwell & Hubbard, 2013). These comparisons reinforce the conclusion that MALL's transformative promise depends as much on systemic readiness as on individual motivation.

Taken together, the findings of this study illustrate both the opportunities and challenges inherent in MALL. On one hand, consistent with supportive research, the study demonstrates that MALL can foster engagement, autonomy, and authentic communication — outcomes directly tied to employability in vocational education. On the other hand, conflicting or cautionary evidence in the literature underscores the risks of inequity, superficial engagement, and inconsistent implementation when infrastructural, pedagogical, and institutional supports are absent. This dual nature of MALL suggests that it should be viewed not as a universal solution, but as a pedagogical innovation whose success is conditional upon local contexts, digital literacy preparation, and systemic investment.

From a broader perspective, the findings and their comparison with prior research highlight clear implications for policy and practice. Policymakers and institutional leaders should recognize that integrating MALL requires more than technological adoption; it demands infrastructural investment, teacher professional development, curriculum alignment, and digital literacy training. For example, subsidized internet packages, offline-compatible applications, and device-sharing schemes could mitigate accessibility barriers (Rahimi & Miri, 2014). Similarly, embedding digital literacy modules into vocational curricula would ensure that learners develop both the technical and transferable skills needed in the modern workplace (Reinders & Pegrum, 2015). Ultimately, MALL has the potential to evolve from a supplementary innovation into a cornerstone of vocational English instruction, but only if supported by holistic, equitable, and sustainable strategies.

V CONCLUSION

The findings of this study demonstrate that Mobile Assisted Language Learning (MALL) holds significant potential to enhance English learning for vocational students by fostering engagement, autonomy, and communication skills through interactive features and authentic practice opportunities. Students and lecturers alike acknowledged the effectiveness of mobile tools in promoting independent learning and workplace-relevant communication, aligning with the practical needs of vocational education. However, challenges such as unstable internet connections, unequal access to devices, and variations in digital literacy remain substantial barriers that can hinder equitable participation. Moreover, the lack of strong institutional and pedagogical support risks limiting MALL to a supplementary role rather than establishing it as an integral part of the curriculum.

To address these challenges, several practical measures are recommended: adopting low-data and offline-enabled applications to reduce reliance on constant connectivity, providing downloadable resources for flexible access, and integrating digital literacy workshops to ensure all learners can use mobile tools effectively. Institutions should also establish clear policies, infrastructure investment, and pedagogical training for teachers to embed MALL sustainably in vocational English programs.

Therefore, while students' perceptions toward MALL are overwhelmingly positive, its success depends not only on learners' motivation but also on systemic efforts to provide adequate infrastructure, digital competence development, and consistent institutional backing. If these factors are addressed, MALL can become a transformative and sustainable approach to English learning in vocational contexts.

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