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MOBILE ASSISTED LANGUAGE LEARNING (MALL) ON EFL STUDENTS' WRITING PROFICIENCY AT UNIVERSITAS MUHAMMADIYAH MAKASSAR

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Abstract

This study explores the impact of Mobile-Assisted Language Learning (MALL) on EFL students' writing proficiency at Universitas Muhammadiyah Makassar. Using a qualitative descriptive approach, data were gathered via interviews and classroom observations. Students utilized tools like Grammarly, Google Translate, and Gemini.ai during Harmer's writing process: planning, drafting, revising, and editing. These tools improved grammar, vocabulary, and organization while fostering independent learning. However, challenges such as poor internet connectivity and distractions emerged, consistent with previous research. The study concludes that MALL is effective when critically used with lecturer guidance, supporting its integration into academic English writing instruction.

Keywords*: MALL, Writing Process, EFL Students, Writing Proficiency, Qualitative research*

INTRODUCTION

In today's digital era, technology has become an inseparable part of various aspects of life, including education. The rapid advancement of digital tools has triggered innovation in language learning, notably through Mobile-Assisted Language Learning (MALL). MALL, as a learning approach that utilizes mobile devices such as smartphones and tablets, has opened new opportunities to enhance language skills, particularly in writing. Through various mobile-based learning platforms, students have broader and more flexible access to practice and improve their writing proficiency. These platforms offer interactive experiences, automatic feedback, and access to rich linguistic resources, all of which contribute to the development of students' writing quality.

Despite the increasing integration of MALL into education, writing remains one of the most complex skills to master in the context of English as a Foreign Language (EFL).

Issues related to grammar, organization, coherence, and lexical richness still pose challenges. A study conducted by Maharani et al. (2024) highlighted that MALL-based applications provide interactive exercises and instant feedback, allowing learners to better understand grammatical structures and refine their writing coherence. Their findings indicated that MALL significantly supports the development of both general writing proficiency and specific components such as syntax and cohesion, which are essential for academic writing. This is particularly relevant for EFL learners at the university level, who are expected to produce structured, clear, and contextually appropriate written discourse.

In addition to grammar-focused assistance, MALL offers flexibility that supports independent and self-paced learning. Arsari et al. (2023) emphasized that mobile phone technology plays a significant role in facilitating various aspects of English learning, including writing skills. The anytime-anywhere accessibility of mobile devices enables students to engage with writing tasks beyond classroom boundaries, making consistent practice more achievable. However, this flexibility also raises concerns about overdependence on technology. When students rely heavily on automated suggestions or corrections, there is a risk that their critical thinking and creative writing processes may be diminished.

Research by Rajendran and Yunus (2021) further supports the notion that MALL encourages increased frequency and consistency in language practice. Although their study focused on speaking, similar mechanisms can be applied to writing. Mobile applications that provide structured writing prompts, progress tracking, and feedback systems can stimulate students to write more regularly and reflect on their improvements. This repeated practice is essential for strengthening learners' abilities and achieving better writing outcomes. Nonetheless, the effectiveness of MALL depends on how it is implemented in learning activities and the extent to which students engage actively with its tools.

In the area of writing assessment, MALL also demonstrates potential to support more standardized and objective evaluation methods. Research conducted by Jeh-do et al. (2024) explored writing assessment frameworks aligned with the Common European Framework of Reference for Languages (CEFR) and found that digital tools help establish consistent criteria for evaluating students' writing performance. This can lead to more reliable assessments and enable instructors to tailor their teaching strategies based on detailed insights into learners' strengths and weaknesses. The integration of MALL into assessment

processes thus not only enhances instruction but also ensures that evaluation reflects actual writing development.

Another significant factor is students' perception of and dependence on MALL in the writing process. Habibie (2021) found that learners tend to believe that using gadgets in combination with traditional learning methods enhances language acquisition. This indicates that while MALL offers various benefits, it should be used to complement, not replace, conventional instruction. A balanced, blended learning model where technology is integrated with teacher-led guidance—ensures that students develop both technical writing skills and deeper language understanding. When instructors remain involved in evaluating written work, students are more likely to apply learned concepts critically and constructively.

Beyond structural accuracy, MALL contributes to improving other aspects of language performance. Fatimah (2021) reported that MALL-based applications enhance EFL learners' pronunciation skills a core component of speaking—which suggests that similar digital support can be extended to writing. In the writing context, this includes the use of advanced vocabulary, idiomatic expressions, and stylistic variation, allowing students to produce more nuanced and expressive texts. This is particularly valuable in academic settings, where writing tasks require not only clarity but also rhetorical effectiveness.

Additionally, vocabulary knowledge is fundamental in writing. Ait Hammou et al. (2023) noted that lexical and phraseological proficiency strongly correlates with writing quality among EFL learners. MALL applications that emphasize vocabulary enrichment, collocation practice, and contextual learning can foster students' ability to express complex ideas clearly and effectively. This highlights the broader role of mobile technology in supporting high-level writing performance beyond mechanical correctness.

Furthermore, Bijani et al. (2023) examined the impact of teachers' academic background and experience on writing assessment in the classroom. Their findings underscored the importance of fair and data-driven feedback in developing writing skills. In this regard, MALL-based platforms offer personalized feedback, error analysis, and progress tracking that support individualized instruction and equitable evaluation. When

used effectively, MALL can provide students with a structured and motivating learning environment that meets diverse learning needs.

Despite the growing body of research on Mobile-Assisted Language Learning (MALL), there is still limited empirical evidence on its direct impact on the writing proficiency of EFL university students in the Indonesian context. While previous studies have highlighted its benefits in improving grammar, vocabulary, and learner autonomy, less is known about how MALL supports all stages of the writing process planning, drafting, revising, and editing and how students perceive its usefulness while managing its challenges. Addressing this gap, the present study examines both students' perceptions and the practical implementation of MALL in academic writing activities to determine its effectiveness in enhancing writing proficiency.

Based on the reviewed literature, it is hypothesized that MALL, when integrated with lecturer guidance, positively influences EFL students' writing proficiency across content, organization, vocabulary, grammar, and mechanics. However, its effectiveness may be reduced by challenges such as unstable internet connectivity, digital distractions, and overreliance on automated tools.

By thoroughly exploring these issues, the study aims to contribute to the optimization of MALL in English writing instruction. The findings are expected to offer practical insights for educators and institutions to integrate MALL more effectively, ensuring that technology enhances rather than hinders students' writing development. Ultimately, this research intends to support the creation of more innovative, balanced, and learner-centered approaches in digital language education.

RESEARCH METHOD

This research employed a qualitative descriptive method to investigate the implementation of Mobile-Assisted Language Learning (MALL) and its influence on the writing proficiency of English as a Foreign Language (EFL) students at Universitas Muhammadiyah Makassar. The qualitative approach was chosen to enable an in-depth exploration of students' perceptions and their actual experiences in using mobile-based tools during the writing process. Adopting a descriptive qualitative design as described by Creswell (2013), the study focused on understanding the meaning that individuals assign to their learning experiences. The research was conducted in the natural setting of the

classroom to observe closely how MALL tools were integrated into real-time writing activities and to explore students' reflective opinions regarding their use.

The participants of this study were fourth-semester students from the English Education Department at Universitas Muhammadiyah Makassar, selected using purposive sampling. Specific criteria were applied to ensure relevant participation: students had to be actively enrolled in writing courses during the semester of data collection, regularly use mobile applications such as Grammarly, Google Translate, Gemini.ai, or other writing-related tools, demonstrate at least intermediate proficiency in English based on prior academic performance, and be willing to participate in both interviews and classroom observations. This selection process ensured that the data were obtained from individuals with adequate technological exposure and experience in academic writing.

Data were collected through semi-structured interviews and classroom observations. The interviews were guided by a structured set of open-ended questions that allowed flexibility for probing. Examples of these questions included: "Which mobile applications do you use most frequently for writing tasks, and why?", "How do these applications help you in planning, drafting, revising, and editing your writing?", and "What challenges do you face when using mobile devices for writing in English?". Classroom observations followed a protocol that focused on identifying the stages of the writing process where MALL tools were applied, the type and nature of application usage, the level of student engagement during tool use, and any technical or behavioral obstacles such as internet connectivity problems or distractions from non-academic applications.

Data collection was conducted in two phases. The first phase involved individual interviews to capture students' perceptions regarding the usefulness, benefits, and challenges of using MALL in writing tasks. The second phase consisted of classroom observations during writing sessions to document how mobile applications were used in real time and how students interacted with these tools. Observational notes included records of both verbal and non-verbal behaviors, types of feedback provided by applications, and the lecturer's interventions during writing activities.

The collected data were analyzed using the framework proposed by Miles and Huberman (1994), which involves three steps: data reduction, data display, and conclusion drawing or verification. Interview and observation data were transcribed and condensed to

highlight meaningful information, then organized into thematic categories to identify patterns and relationships. The conclusions were drawn and verified through triangulation, comparing interview responses with observational data and relevant previous literature. This approach ensured the validity and reliability of the research findings.

FINDINGS AND DISCUSSION

Findings

The findings present how Mobile-Assisted Language Learning (MALL) is implemented throughout the stages of the writing process and how students perceive its use in supporting their learning. Data were collected through semi-structured interviews and classroom observations, then analyzed using Miles and Huberman's (1994) framework: data reduction, data display, and conclusion drawing/verification.

In the data reduction stage, all interview transcripts and observation notes were read thoroughly, and meaningful statements were highlighted. These statements were assigned initial codes such as "vocabulary enrichment", "idea generation", "grammar correction", "technical problems", and "digital distractions".

In the data display stage, the codes were grouped into broader categories reflecting the writing process stages planning, drafting, revising, and editing as well as students' perceived benefits and challenges. Observation notes were displayed in matrices to compare tool usage patterns between students.

In the conclusion drawing/verification stage, patterns and recurring themes were identified. The coded data from interviews were cross-checked with observation results to ensure consistency and reliability. For example, when students mentioned using Grammarly for revision, this was verified by classroom observation records showing Grammarly use during revising activities.

Implementation of MALL

This section presents the research findings on the implementation of Mobile-Assisted Language Learning (MALL) in supporting the writing process of EFL (English as a Foreign Language) students at Universitas Muhammadiyah Makassar. Based on interviews and classroom observations, mobile-based applications have been integrated into nearly every stage of the students' writing process. The analysis is organized according to the stages of writing proposed by Harmer (2004), namely: planning, drafting, revising, and editing, as

previously discussed in Chapter II.

Planning Stage

At the initial stage of the writing process, students actively utilized several mobile-based applications such as Duolingo, Gemini.ai, and Google Translate to support idea development and vocabulary enrichment. These tools were primarily used as brainstorming aids and linguistic resources to prepare students before engaging in the actual drafting of their writing. Classroom observations conducted on June 9, 2025, revealed that students consistently accessed these applications during the planning phase, either individually or in pairs, as they prepared to formulate arguments or descriptions for their assigned tasks.

Duolingo was mostly used to review and expand vocabulary through interactive exercises, helping students recall relevant words and phrases related to specific themes. This application proved particularly useful for students who wanted to reinforce basic vocabulary in an engaging and gamified format.

Gemini.ai, on the other hand, played a more creative role. Students used it to search for background knowledge and generate ideas on topics. By inputting prompts or keywords into Gemini.ai, they could retrieve sample ideas, argumentative points, or descriptive sentences that served as inspiration for their writing outlines. This indicates that students were not solely dependent on textbook models or teacher input, but were able to explore various perspectives independently using artificial intelligence.

As expressed by Participant 4:

"I usually use Gemini.ai, for example, if I want to know something for writing, I search for ideas there."

Google Translate served as both a vocabulary and a translation tool. Students did not use it merely to translate isolated words, but also to understand how these words functioned in complete sentences. The application helped clarify unfamiliar terms and contextualize vocabulary for better comprehension and more accurate usage in academic writing.

As Participant 5 added:

"I use Google Translate to translate and also to find additional ideas before writing."

These findings suggest that mobile applications provided accessible digital support that encouraged autonomous exploration, allowing students to prepare content and language resources in advance. This stage shows that MALL (Mobile-Assisted Language

Learning) plays an essential role not only in language development but also in stimulating critical thinking and creativity at the pre-writing stage. By engaging in independent research and idea generation, students build a stronger conceptual and lexical foundation for the writing that follows.

Drafting Stage

The drafting stage is marked by the students' process of transforming ideas into written form. Based on classroom observations conducted on June 12, 2025, students were seen actively composing their drafts using digital platforms such as Google Docs, Microsoft Word Mobile, and Notion. These platforms not only allowed students to type efficiently but also enabled them to shift between applications to support their writing needs in real-time.

In addition to these writing platforms, students also used Google Translate to confirm sentence structure accuracy and ensure the appropriateness of word choices. More notably, many relied on DPL (*Digital Paraphrasing Lab*) to convert their ideas from Indonesian into English during the initial drafting phase.

As expressed by Participant 6:

> *"I use DPL to build my draft from the initial translation, and then I refine it using other apps."*

This statement highlights the role of DPL as a foundational tool for bridging students' native language with the target language, helping them to initiate their writing more confidently. DPL functioned not merely as a translator, but as a scaffolding tool that supported paraphrasing and sentence construction in English, which students could later enhance using other grammar or editing applications.

The drafting process, therefore, was not linear but dynamic and digitally integrated. Students moved between apps depending on the task, checking sentence structure with Google Translate, refining grammar with Grammarly, or organizing content with Notion or Google Docs. This fluid use of digital tools reflects a more interactive and multitasking approach to writing, where drafting and revising occur simultaneously.

Moreover, this stage shows how MALL empowers students to take control of the writing process. With immediate access to a variety of resources, they are no longer dependent on a single source of instruction. Instead, they actively make decisions about which tools to use, how to phrase ideas, and how to develop their drafts step by step.

In conclusion, mobile-assisted drafting tools not only support students in converting ideas into text but also help them refine linguistic structures, improve fluency, and increase their confidence in expressing complex thoughts in English.

Revising Stage

In the revising stage, students re-evaluated the content and organization of their writing based on feedback from lecturers or peers. During the classroom observation conducted on June 9, 2025, students were actively engaged in reviewing their drafts using Google Translate to find more appropriate vocabulary and Grammarly to address overlooked structural issues in their sentences.

Participant 4 explained:

"Before using Grammarly, I didn't know whether my sentence structure was correct. But after using it, I received feedback and was able to revise."

Meanwhile, Participant 2 shared

"I often use Google Translate to find better word choices. For example, if I'm unsure, I compare a few versions before making a change."

This stage demonstrates that students have begun to develop more independent evaluative skills. Rather than relying solely on external corrections, they reviewed and revised their work through personal reflection and assistance from digital tools. The act of comparing different versions of sentences or vocabulary shows that students are thinking critically and making informed linguistic decisions.

Moreover, the use of Grammarly and Google Translate during revision enabled students to improve both the clarity and accuracy of their texts. Grammarly helped them refine syntax and coherence, while Google Translate supported vocabulary refinement by providing lexical alternatives in context.

Overall, this phase reflects a growing autonomy in academic writing, where students demonstrate responsibility for improving the quality of their own work. It also indicates their increasing understanding of the standards of academic writing, particularly in relation to clarity, precision, and appropriate word use. Through MALL, students are not just revising reactively, but engaging in a more reflective and self-directed learning process, essential for their development as competent academic writers.

Editing Stage

In the editing stage, students focused on refining sentence structure, enhancing vocabulary variety, and improving stylistic coherence. Based on classroom observations conducted on June 12, 2025, it was found that students utilized Grammarly to detect grammatical errors and punctuation mistakes efficiently. In addition to this, they also used AI-based tools such as *Gemini.a*i and ChatGPT for paraphrasing purposes to restructure sentences, vary their expression, and maintain the intended academic meaning of their content.

As stated by Participant 7:

"I think Grammarly is helpful because it corrects grammar. For example, if the word choice is incorrect, the app suggests a more appropriate one."

Meanwhile, Participant 3 shared:

"I use Gemini.ai for paraphrasing so the writing doesn't sound monotonous and becomes more academic."

The integration of AI tools at this stage indicates a shift in the students' approach from merely correcting surface-level errors to engaging in more reflective and stylistically aware editing. Students began to assess not only correctness but also the tone, academic register, and rhetorical structure of their writing.

By using ChatGPT and Gemini.ai, students experimented with sentence variation and lexical substitution, enabling them to avoid repetition and elevate the quality of their writing. On the other hand, Grammarly served as a foundational tool for grammatical accuracy and punctuation clarity.

These practices reflect a growing sense of autonomy in academic editing. Rather than relying solely on instructor feedback, students used multiple digital tools to self-edit and refine their work in real-time. The presence of these editing technologies empowered them to make conscious linguistic choices and engage in the higher-order thinking processes essential for academic writing.

Overall, the editing phase in a MALL context demonstrates how technology fosters not only error correction but also critical linguistic awareness, helping students develop more polished, precise, and stylistically appropriate written texts.

Students' perception of using MALL

This finding illustrates students’ perceptions of using Mobile-Assisted Language

Learning (MALL) in their English writing activities. These perceptions encompass both the perceived benefits and the challenges encountered while using mobile-based applications during the academic writing process.

Perceived Benefits

Students perceived Mobile-Assisted Language Learning (MALL) as a helpful tool in developing their English writing skills. Applications such as Grammarly, Google Translate, and Gemini.ai were widely used to support vocabulary development, sentence structuring, and grammar correction. These tools allowed students to identify and revise errors in real time, helping them become more independent and reflective in the writing process.

Moreover, MALL offered flexibility in terms of time and place. Students appreciated the ability to write or revise assignments anytime, whether at home, in class, or even while traveling. The accessibility of mobile apps supported autonomous learning, enabling students to improve their writing without always relying on teacher feedback. The convenience of having digital dictionaries and grammar checkers in one device also enhanced learning efficiency.

Through regular use, students reported increased confidence in their writing, particularly in organizing ideas and constructing sentences that align with academic standards. They also noted that features like synonym suggestions and sentence rephrasing helped them produce more varied and coherent texts.

Challenges

Despite the benefits, students faced several challenges when using MALL. Technical problems, especially unstable internet connections, often interrupted their writing process.

Some features in applications like Grammarly or Gemini.ai could not be accessed offline, which limited their functionality. To overcome this, students sought alternative solutions such as using free Wi-Fi in public spaces or switching to offline tools, although these options also had limitations.

Another major challenge was digital distraction. Since academic apps were on the same device as entertainment platforms like TikTok or Instagram, students found it difficult to stay focused. Notifications and temptations to open non-academic apps often interfered with their productivity. Some students attempted to minimize distractions by

turning off their internet or using apps in offline mode, though this also reduced access to key features.

Additionally, students observed that some app-generated suggestions were inaccurate or unsuitable for academic contexts. For instance, translations from Google Translate or grammar corrections from free versions of Grammarly were not always precise. In response, students developed strategies such as cross-checking with other tools, using manual dictionaries, or consulting peers and lecturers for clarification.

Discussion

This discussion outlines and analyzes the research findings related to the implementation of and students' perceptions toward Mobile-Assisted Language Learning (MALL) in the process of learning English writing. Each finding is compared and aligned with existing theories and previous research studies.

In implementations of MALL, the research findings reveal that the implementation of Mobile-Assisted Language Learning (MALL) has been integrated into all stages of the students' writing process, from planning to revising. This aligns with Harmer's (2004) theory, which outlines four main stages of writing: planning, drafting, revising, and editing. Through the use of applications such as Google Translate, Gemini.ai, Grammarly, and Google Docs, students were able to generate ideas, compose drafts, edit, and revise their writing independently and effectively.

In the planning stage, students utilized applications like Duolingo, Gemini.ai, and Google Translate to enrich their vocabulary and explore initial ideas. This aligns with the findings of Satar and Akcan (2020), who stated that MALL provides learners with flexible access to language resources at any time and supports critical thinking. The use of Gemini.ai for idea generation also reflects the findings of Siregar et al. (2022), who emphasized that AI-based applications help students effectively construct and expand their ideas.

During the drafting stage, students used applications such as Google Docs, Notion, and Microsoft Word Mobile to compose paragraphs. Most of them also relied on Grammarly as an automatic correction tool. This supports the findings of Melvina and Asnur (2021), who found that Grammarly significantly improves EFL students' writing skills, particularly in sentence structure and grammar. Writing has become less linear and more simultaneous, with drafting and editing happening at the same time.

The editing and revising stages involve content development and structural refinement. Students used applications to revise their sentences based on feedback from lecturers or peers. These findings reinforce the views of Aminatun and Oktaviani (2021), who stated that the corrective features of applications like Grammarly help students enrich their vocabulary and better understand sentence structure. This reflects an increase in learning autonomy and the strengthening of academic writing skills.

Therefore, the implementation of MALL among EFL students at Universitas Muhammadiyah Makassar is consistent with existing theories and previous research. Technology supports a more interactive, reflective, and flexible writing process.

Moreover, in students' perception about using MALL in the writing process, most students reported that MALL helped them expand their vocabulary and improve sentence structure. Applications like Grammarly and Google Translate were the main tools used in this process. These findings are consistent with Rahmawati and Rachmijati (2022), who found that students felt more motivated to write because the automatic corrections provided by these applications boosted their confidence. The use of synonym suggestions and writing style recommendations also contributed to producing more academic texts.

In addition, MALL provided time efficiency and location flexibility. Students could write outside class hours or even off campus. This aligns with Satar and Akcan (2020), who stated that MALL supports autonomous learning. The use of AI-based applications like Gemini.ai further encourages context-based learning, as mentioned by Siregar et al. (2022).

Another key advantage of MALL is its ability to detect errors in real time. Features such as grammar checking and rephrasing allow students to immediately understand and correct their mistakes. This supports the view of Aminatun and Oktaviani (2021), who argued that Grammarly's automatic correction offers instant, educational feedback and enhances students' understanding of language structure.

Despite its many benefits, students also faced several challenges when using MALL. One major issue was dependence on applications. Some students felt that they became too comfortable and lazy to think independently. This corresponds with the warning from Putri et al. (2020), who noted that excessive use of translation apps can reduce critical thinking skills.

Technical issues, such as unstable internet connections and limited features in offline

applications, were also significant obstacles. Grammarly and Gemini.ai, for instance, require a stable internet connection. This is consistent with Nuryani et al. (2023), who highlighted connectivity as a major barrier to maximizing MALL's potential.

Furthermore, distractions from entertainment apps like TikTok and Instagram posed another challenge. Since students used the same devices for both academic and non-academic purposes, they were often tempted to access unrelated content. This finding supports Rahmawati and Rachmijati's (2022) study, which stressed the importance of digital literacy and time management to ensure that technology use does not disrupt academic focus.

Overall, students' perceptions of MALL reflect a generally positive view of its role in enhancing their writing abilities. They recognize its benefits in vocabulary development, grammar improvement, and writing flexibility. However, the challenges they experience such as overdependence, technical issues, and digital distractions, highlight the importance of balanced and mindful use. Therefore, while MALL serves as an effective educational tool, its success depends on students' digital responsibility and ability to integrate technology wisely into their learning process.

The discussion in this study indicates that the implementation of Mobile-Assisted Language Learning (MALL) has been actively integrated into all stages of students' writing processes, from idea planning to editing and revising. Applications such as Grammarly, Google Translate, Gemini.ai, and Google Docs have proven to provide not only technical support but also encourage autonomous learning.

Furthermore, students' perceptions of using MALL are generally positive. They reported clear benefits such as improved vocabulary, better sentence structure, increased flexibility in learning time and location, and greater motivation to write. However, some challenges were also identified, including overdependence on digital tools, technical issues such as unstable internet connections, and distractions from non-academic apps.

Therefore, MALL is proven to be an effective tool in supporting English writing learning among EFL students. However, its effectiveness can only be fully realized when students use technology in a balanced and responsible manner while continuing to develop critical thinking skills throughout the writing process.

CONCLUSION

This study found that Mobile-Assisted Language Learning (MALL) significantly supports the writing development of EFL students at Universitas Muhammadiyah Makassar. Students demonstrated positive attitudes toward MALL and regularly engaged with digital tools such as Grammarly, Google Translate, ChatGPT, and Gemini.ai to correct grammar, expand vocabulary, and organize their ideas more effectively. MALL was applied consistently across all stages of the writing process, planning, drafting, revising, and editing, enabling students to produce more accurate, coherent, and academically appropriate texts.

Beyond linguistic improvements, the integration of MALL also contributed to higher levels of confidence, motivation, and engagement in writing tasks. The findings highlight that mobile-based tools can foster learner autonomy by providing instant feedback, access to diverse resources, and flexibility in learning beyond the classroom. Nevertheless, challenges such as unstable internet connections, distractions from non-academic applications, and occasional over-reliance on automated suggestions remain areas for attention. Students showed adaptability by utilizing offline alternatives, cross-checking results with multiple sources, and seeking clarification from peers or lecturers.

This research contributes to the growing body of literature on technology-enhanced language learning by providing empirical evidence of how MALL can be effectively integrated into the writing process in an EFL context. It emphasizes the importance of combining mobile technology with guided instruction to ensure balanced skill development and critical thinking. Future research could explore longitudinal impacts of MALL on writing proficiency, compare its effectiveness across different language skills, or investigate strategies to minimize distractions and inaccuracies in digital tool usage. By addressing these areas, educators and institutions can further optimize the role of MALL in fostering competent, independent, and digitally literate language learners.

REFERENCES

Ait Hammou, K., El Yamami, A., & El Fatihi, M. (2023). Lexical proficiency and its impact on writing quality in EFL learners. *Arab World English Journal, 14*(2), 253–268.

Al-Qudah, F. M. (2021). The effect of using mobile-assisted language learning applications on developing students' writing performance. *Journal of Language and Linguistic*

Studies, *17*(2), 1061–1073.

Aminatun, D., & Oktaviani, L. (2021). The effectiveness of using Grammarly in enhancing students' writing performance. *Journal of English Language Teaching and Learning, 2*(1),1–8.

Arsari, D., Yusuf, M., & Priyatmojo, A. (2023). Mobile-assisted language learning (MALL) in EFL writing: Facilitating learner autonomy and engagement. *Journal of English Language Teaching and Linguistics, 8*(1), 45–57.

Bijani, H., Saeidi, M., & Maleki, A. (2023). Teachers' academic background and its influence on writing assessment practices. *English Language Teaching, 16*(3), 45–57.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE Publications.

Del Mar Sánchez-Pérez, M. (2023). Improving writing performance through mobile feedback tools: A longitudinal study. *ReCALL, 35*(1), 1–19. https://doi.org/10.1017/S0958344022000151

Fatimah, S. (2021). The impact of mobile-assisted pronunciation learning on EFL students' speaking ability. *Journal of Language Education and Development, 3*(2), 90–100.

Habibie, A. (2021). Students' perceptions of mobile technologies in language learning: A case study in higher education. *Indonesian Journal of Applied Linguistics, 11*(2), 355–364. https://doi.org/10.17509/ijal.v11i2.31072

Harmer, J. (2004). *How to teach writing*. Longman.

Jeh-do, C., Niran, P., & Sukjairungwattana, P. (2024). Digital writing assessment aligned with CEFR: A practical implementation. *Journal of Language Testing and Assessment, 12*(1), 34–49.

Jeong, H. (2022). Facilitating self-directed learning through MALL in EFL writing. *Computer-Assisted Language Learning Electronic Journal, 23*(2), 45–58.

Maharani, S., Fitriani, Y., & Kusumawati, L. (2024). Enhancing academic writing skills through mobile-assisted language learning (MALL): A study on EFL students. *International Journal of Educational Technology in Higher Education, 21*(2), 112–128. https://doi.org/10.1186/s41239-024-00391-w

Melvina, & Asnur, M. N. A. (2021). The use of Grammarly in improving students' writing skill. *Jurnal Ilmiah Sultan Agung, 6*(1), 12–20.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). SAGE Publications.

Nuryani, D., Hasanah, R., & Permatasari, R. (2023). Students' obstacles in using mobile-based translation apps for academic writing. *Journal of Language and Literature*

Education, 4(1), 77–86.

Putri, R. A., Rasyid, Y., & Wulandari, N. (2020). The influence of Google Translate on students' critical thinking in writing. *Indonesian EFL Journal, 6*(2), 108–118.

Rahmawati, R., & Rachmijati, C. (2022). Students' perceptions on the use of Grammarly in EFL writing classes. *Journal of English Teaching and Research, 7*(1), 34–41.

Rajendran, N. S., & Yunus, M. M. (2021). MALL for speaking fluency: A study on EFL learners' engagement and perceptions. *Asian Journal of University Education, 17*(3), 166–177. https://doi.org/10.24191/ajue.v17i3.14589

Satar, H. M., & Akcan, S. (2020). EFL students' engagement with mobile applications in writing instruction. *Language Learning & Technology, 24*(1), 125–141.

Siregar, N., Dewi, N. L., & Fitriani, Y. (2022). The role of AI-based tools in assisting EFL students' writing: A preliminary study. *Journal of English and Education, 8*(2), 25– 33.

Traxler, J. (2009). Learning in a mobile age. *International Journal of Mobile and Blended Learning, 1*(1), 1–12. https://doi.org/10.4018/jmbl.2009010101

Viberg, O., & Grönlund, Å. (2013). Cross-cultural analysis of users' attitudes toward the use of mobile devices in second and foreign language learning in higher education. *Computers & Education, 69*, 169–180. https://doi.org/10.1016/j.compedu.2013.07.014

Yuliana, R., & Sari, D. P. (2021). Barriers and benefits of mobile learning in English writing instruction. *Journal of English Language Education, 7*(2), 98–110.