


ENHANCING WRITING PROFICIENCY THROUGH MOBILE-ASSISTED
LANGUAGE LEARNING (MALL): INSIGHTS AND INNOVATIONS

Savira-Zaniar, Djuwari, Mujad Didien Afandi, Novi Rahmania Aquariza, Nailul Authar
^{1,2,3,4,5} Pendidikan Bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Nahdlatul Ulama Surabaya (UNUSA),
Indonesia

ARTICLE INFO	ABSTRACT
<p>Article history: Received: March 7, 2025 Revised: March 17, 2025 Accepted: April 8, 2025 Published: April 30, 2025</p> <p>Keywords: Mobile-Assisted Language Learning (MALL) Writing proficiency Students' Perceptions Second Language Acquisition Digital learning</p>	<p>Mobile-Assisted Language Learning (MALL) improves writing proficiency through flexible, interactive, and feedback-oriented educational experiences. Mobile devices provide real-time modifications, multimedia integration, and collaborative activities such as blogging and peer review, allowing students to enhance their writing skills beyond conventional classroom limitations. Writing, a critical skill in language acquisition, requires not only mastery of vocabulary and syntax but also the ability to structure ideas and communicate effectively. However, traditional classroom instruction often lacks the immediate feedback and interactivity that modern learners need. MALL addresses these challenges by offering real-time feedback, interactive exercises, and multimedia resources that enhance the writing process. Mobile-Assisted Language Learning (MALL) promotes vocabulary enhancement and cultural understanding via real digital information. Despite obstacles like technical limitations and application choices, its capacity to promote learner-centered environments is considerable. This study investigates the role of Mobile-Assisted Language Learning (MALL) in enhancing writing skills, focusing on its advantages and obstacles, and analyzing techniques to optimize its effectiveness. The findings from this research can guide optimal strategies for integrating mobile technology into language education, thereby enhancing student engagement and writing proficiency.</p> <p><i>This is an open access article under the CC BY-SA license.</i></p> <div></div>
<p>How to cite: Zaniar, S., Djuwari, Afandi, M. D., Aquariza, N. R., & Authar, N. (2025). Enhancing Writing Proficiency Through Mobile-Assisted Language Learning (MALL): Insights And Innovations. English Language Teaching Methodology, 5(1), 31-42. https://doi.org/10.56983/eltm.v5i1.1757</p>	
<p>Corresponding Author: Savira Zaniar, English Education Department, Universitas Nahdlatul Ulama Surabaya, Tenggilis Utara no 14, Tenggilis Mejoyo, 60291, Surabaya, Indonesia. Email: savira@unusa.ac.id</p>	

INTRODUCTION

Mobile-Assisted Language Learning (MALL) has become a dynamic instrument for improving language learning in a time when digital technology always changes the scene of education. Teachers and students both are investigating creative methods to use mobile devices to promote language acquisition, especially in terms of writing competence, as these tools become more available and interconnected into daily life. More personalized and

flexible learning experiences made possible by the prevalence of smartphones, tablets, and other mobile devices let students interact with language resources anywhere as well as any time.

According to Ahmadpour, et al. (2016), in language acquisition, writing is an essential skill that involves not only an excellent understanding of vocabulary and syntax but also the capacity to effectively arrange ideas and clearly convey concepts. Despite the fact that practical, traditional approaches to teaching writing may not provide the quick responses and interaction that modern learners prefer. Classroom-based learning could not always give the personalized attention that students need to develop their writing abilities at their own movements. Thus, in accordance with Aghajani, et al. (2018), Mobile-Assisted Language Learning (MALL) presents a good substitute since it gives students chances to practice writing in real-world settings, get feedback right away, and interact with many multimedia tools enhancing the course of instruction.

The capacity of Mobile-Assisted Language Learning (MALL) to establish a learner-centered environment is one of its main benefits. Platform and mobile applications provide an extensive range of interactive activities offered to fit individual learning preferences and level of competence. Through activities including journaling, blogging, and group storytelling, students may improve their writing. They also get immediate comments on grammar, spelling, and sentence construction. This immediately apparent feedback process helps students identify and correct mistakes in real time, therefore strengthening their knowledge and encouraging self-regulated learning.

Moreover, mobile-assisted language learning generates it possible to access real-world settings and authentic resources improving writing performance. As students create their written responses, learners can draw inspiration and increase their vocabulary by interacting with articles, podcasts, videos, and social media resources in the target language. In addition to improving their writing abilities, exposure to many linguistic inputs helps students expand to value cultural differences and communication styles more deeply.

The way Mobile-Assisted Language Learning (MALL) integrates collaboration technologies increases its efficiency in improving writing ability even more. Through discussion forums or messaging apps, students may share their work with peers, engage in peer review projects, and offer helpful criticism (Aghajani, et al. 2018). This cooperative feature helps students develop a feeling of community and motivates them to evaluate their work closely and learn from one another. Such social contact helps students to confidently negotiate many language contexts, reflecting real-world communication.

Adoption of Mobile-Assisted Language Learning (MALL) comes with difficulties notwithstanding its several advantages. Technical problems such inconsistent internet connections or limited device access can impede flawless incorporation into the learning process. Furthermore, the great variety of mobile applications accessible could overwhelm teachers and pupils, so it is imperative to choose suitable tools in line with pedagogical goals. Equally crucial to provide significant learning opportunities is teaching teachers to properly include Mobile-Assisted Language Learning (MALL) into their daily activities.

Understanding Mobile-Assisted Language Learning (MALL)'s effectiveness in improving writing competence is crucial as the study on the pedagogical consequences of Mobile-Assisted Language Learning (MALL) keeps expanding. Examining student interactions with mobile technology, the kinds of writing assignments they complete, and the support systems in place will help one to better maximize these digital resources. Examining students' opinions of Mobile-Assisted Language Learning (MALL) might also help to clarify motivating elements influencing involvement and writing development.

Several studies highlight Mobile-Assisted Language Learning (MALL)'s role in improving students' writing proficiency. Pingmuang and Koraneekij (2022) implemented a task-based approach and gamification through a Mobile-Assisted Language Learning (MALL) application, resulting in significant improvements in students' post-test writing scores. The application facilitated error analysis, peer assessment, and constructive feedback, enhancing organization, coherence, and grammar. In addition, Song and Song (2023) examined the use of ChatGPT in AI-assisted writing instruction. Their mixed-methods study revealed notable improvements in writing organization, coherence, grammar, and vocabulary. AI tools provide personalized, instant feedback, expediting the writing process and empowering learners to revise their work effectively. Furthermore, motivational factors play a crucial role in language acquisition. Fakhrurriana and Qhoirulita (2024) highlighted that Mobile-Assisted Language Learning (MALL) increased motivation through interactive features, educational games, and easy access to materials. Students perceived mobile applications as user-friendly and engaging, which fostered a positive attitude toward learning. Similarly, Wang and Gunaban (2023) found that mobile applications such as WeLearn and Flipped English fostered learner autonomy and increased engagement. The personalized nature of Mobile-Assisted Language Learning (MALL) allowed students to set their own learning pace, resulting in sustained interest and motivation.

Moreover, this paper explores the strategies used, the difficulties observed the larger consequences for language education, and the role that mobile-assisted language learning plays in enhancing students' writing abilities. This study intends to provide insights and ideas by analysing these elements that might guide the next pedagogical practices and maximize the use of mobile technology in language acquisition. In the end, knowing the intersection of mobile technology and writing ability will open the path for more inclusive, efficient, and interesting language instruction approaches that bring to the several statements of the problems.

1. How does Mobile-Assisted Language Learning (MALL) influence students' writing proficiency in language learning contexts?
2. How do students perceive the use of MALL in developing their writing proficiency, and what motivational factors influence their engagement?
3. What strategies do learners employ when using MALL to improve their writing proficiency?

RESEARCH METHOD

This study used a transformational mixed-methods research design to examine the effectiveness of Mobile-Assisted Language Learning (MALL) in improving writing skills. The innovative design combines both quantitative and qualitative data collection approaches to evaluate enhancements in writing skills and to investigate the social and educational changes resulting from the deployment of Mobile-Assisted Language Learning (MALL).

The study will include 25 participants from English Education Universitas Nahdlatul Ulama Surabaya 2022 with various proficiency levels enrolled in a language learning program. A purposive sample method will be implemented to select individuals who consistently use mobile devices in their language acquisition process. Data Collection tools consist of pre- and post-tests that evaluate improvements in writing proficiency, surveys that collect students' perspectives and experiences with Mobile-Assisted Language Learning (MALL), and semi-structured interviews to obtain in-depth insights into learners' involvement and issues. Furthermore, writing samples provided before, during, and subsequent to the intervention will be examined to evaluate progress. This present study used triangulation methods for the data analysis, for instance, to integrate quantitative results with qualitative insights to validate findings and offer a holistic view of the impact of Mobile-Assisted Language Learning (MALL) on writing proficiency and cross-reference application analytics with survey responses to explore alignment between perceived usefulness and actual performance gains.

RESULT AND DISCUSSION

Results from this research indicate that Mobile-Assisted Language Learning (MALL) substantially improves students' writing proficiency in language acquisition settings. The quantitative analysis of pre-test and post-test scores reveals significant enhancements in grammatical accuracy, vocabulary length, coherence, and overall written structure. Furthermore, qualitative data obtained from students' written projects indicate a significant enhancement in creativity and expression. The improvement might be related to the regular application of digital writing instruments, auto-correction functionalities, and instantaneous feedback systems included in mobile applications. The accessibility and flexibility of Mobile-Assisted Language Learning (MALL) encourage students' writing practice outside typical classroom environments, leading to increased confidence and enhanced involvement in the learning process.

Influence of MALL on Students' Writing Proficiency

Results from this research indicate that Mobile-Assisted Language Learning (MALL) substantially improves students' writing proficiency in language acquisition settings. The quantitative analysis of pre-test and post-test scores reveals significant enhancements in grammatical accuracy, vocabulary length, coherence, and overall written structure. Furthermore, qualitative data obtained from students' written projects indicate a significant enhancement in creativity and expression. The improvement might be related to the regular application of digital writing instruments, auto-correction functionalities, and instantaneous feedback systems included in mobile applications. The accessibility and flexibility of Mobile-

Assisted Language Learning (MALL) encourage students' writing practice outside typical classroom environments, leading to increased confidence and enhanced involvement in the learning process.

The research further investigates the techniques that learners apply in Mobile-Assisted Language Learning (MALL) to improve their writing skills. A popular strategy is self-editing via technological tools, involving students implement integrated grammar and spell-check functionalities to enhance their writing before submission. Moreover, students participate in consistent writing practice using mobile applications like Grammarly and Duolingo, which offer structured writing activities customized to their competence levels. Peer review and feedback systems are vital methods, as students engage in mobile-based discussion forums and peer review sessions to share constructive criticism and enhance their writing quality.

Furthermore, numerous students apply voice-to-text features, online vocabulary databases, and video courses to enhance their vocabulary and comprehend sentence patterns more efficiently. These resources function as essential instruments for learners to explore various writing styles and improve their linguistic proficiency. Additionally, reflective writing techniques, such as digital journaling and blogging, are preferred by students aiming to monitor their development and pursue ongoing self-enhancement. The integration of these ideas into Mobile-Assisted Language Learning (MALL) emphasizes the various ways for how mobile technology helps the writing process and promotes a more learner-centric approach.

Moreover, the adaptability provided by Mobile-Assisted Language Learning (MALL) allows students to customize their learning experiences according to their specific requirements and interests. In contrast to conventional classroom education, which typically conforms to a strict curriculum, Mobile-Assisted Language Learning (MALL) offers learners the opportunity to investigate diverse writing styles and forms at their own acceleration. This flexibility not only increases their motivation but also generates an elevated feeling of personal control over their educational experience. Consequently, students acquire a deeper awareness of writing rules and enhance their proficiency in expressing their thoughts with clarity and coherence.

Mobile-Assisted Language Learning (MALL) improves students' writing skills and helps them to establish self-sufficient learning practices as well. By means of mobile technology, students become more self-dependent in managing their learning paths, using digital resources to define personal writing goals and track their development over time. Having access to writing tools and instructional materials at any time helps students to be proactive and develop a habit of lifelong learning outside of the classroom. This level of independence inspires students to investigate several subjects and try several writing approaches, therefore enhancing their whole writing experience. Moreover, the availability of mobile apps fosters a conducive environment whereby students may grow from their mistakes free from quick criticism, therefore enabling slow development and higher confidence in their writing skills.

Mobile-Assisted Language Learning (MALL) significantly influences language acquisition. Students said that mobile applications enhance vocabulary acquisition by presenting new concepts within context and facilitating repeated practice. Instruments such as flashcards, vocabulary-enhancing games, and customized word lists provide focused learning experiences, expanding students' lexical resources in stimulating manners. Grammatical accuracy markedly enhanced as students employed in-app grammar-checking tools that offered instantaneous corrective input. Ongoing exposure to grammatical norms and patterns enhanced students' recognition of prevalent errors and enabled them to implement remedial actions in their writing. Mobile-assisted writing initiatives further facilitated students in organizing their ideas more coherently, supported by writing templates, guided prompts, and models of well-structured works.

Moreover, Mobile-Assisted Language Learning (MALL) afforded students exposure to several writing genres, ranging from essays to digital storytelling, so enhancing their comprehension of genre-specific rules. Access to digital dictionaries, thesauruses, and translation tools enabled pupils to enhance their vocabulary and improve word selection. Students indicated enhanced fluency and accuracy in their written output over time with continuous use of mobile writing tools. The incorporation of multimedia components, including video tutorials and audio prompts, enhanced students' comprehension of writing approaches and narrative structures.

By improving numerous aspects of their writing skills—including vocabulary expansion, grammatical accuracy, and concept ideas—the results of this study show that Mobile-Assisted Language Learning (MALL) greatly improves students' writing competence. Regular written form, immediate feedback, and exposure to various kinds of writing resources were made easier by mobile devices' accessibility and conveniences. Furthermore, the integration of multimedia elements assisted comprehension and remember writing ideas more deeply. These findings are consistent with earlier research since they imply that including technology into language education creates a more participatory and independent learning environment, thereby helping students in becoming more proficient writers.

From Mobile-Assisted Language Learning (MALL) most obvious effects was on the development of vocabulary. Students indicated that mobile applications consolidated memory by exposing them to new terms in context, which allowed repeated practice. Flashcards, vocabulary-building games, and personalized word lists gave students chances for specific learning and permitted them to increase their lexical selection in an interesting way.

As students applied grammar-checking tools constructed into mobile applications, grammar accuracy also improved. These instruments gave students immediately effective correctional input, therefore enabling them to identify and fix mistakes right away. Through means of constant exposure to grammatical norms and patterns, students developed increased awareness of common mistakes and implemented correction actions in their writing.

Another important area of development was idea structure. Mobile-assisted writing projects pushed students towards logically organizing their ideas. Access to writing templates, guided prompts, and samples of well-structured writings contributed students to produce

more logically ordered essays. Students additionally noted that they were more confident in their capacity to use digital tools for planning, drafting, and editing their work.

Students' perceptions of Mobile-Assisted Language Learning (MALL) were generally beneficial, highlighting convenience and higher involvement. The ability to learn anytime and anywhere decreased anxiety and created a more pleasant setting for writing practice. Students loved the self-reliance that mobile learning provided, as they could determine their own move and review lessons as required. Mobile applications' customized tools let students adapt their educational experiences to their own preferences and level of expertise.

Students' Perceptions and Motivational Factors

Students' perceptions of Mobile-Assisted Language Learning (MALL) as a highly effective and engaging method for writing development are generally positive. Survey responses and interview data show that students comparable to the interactive features of mobile applications, which provide gamification exercises, personalized assistance, and chances for collaborative learning. The research defines essential motivational elements that enhance students' involvement with Mobile-Assisted Language Learning (MALL). Flexibility is necessary, as students appreciate the capacity to learn at their own pace and review lessons as required. The possibility of immediate feedback, including AI-based grammatical correction and writing recommendations, improves their learning experience. The accessibility of writing tools at any time and from any location enhances students' motivation to constantly participate in writing activities. Additionally, social learning elements, such as peer collaboration and discussion forums, develop a sense of community and support, motivating students to engage more actively in writing assignments.

Significant motivating elements were the instant feedback given by gamification components, language learning applications, and the sense of accomplishment attained from finishing projects. Many students asserted that the swift feedback system supported them to develop a growth attitude by tracking their development and pointing up areas that required work. By including gamification components like levelling up or badge earning, students were inspired to participate more regularly by an additional aspect of fun and competition.

Moreover, the combination of technology improved the relevance of the learning process for students' daily life, therefore boosting their natural motivation. Students' daily routines depend around their mobile devices, therefore using them for instructional purposes contributed to close the distance between official education and personal interests. Combining writing tasks with technology permitted students discover that they turned from an assignment into a valuable activity.

Apart from encouraging self-determination, Mobile-Assisted Language Learning (MALL) is extremely significant in developing critical thinking and problem-solving ability. Students working on various mobile-based writing projects come across prompts and problems that call for thorough organization of their ideas and evaluation of several approaches of expression of their views. Many mobile applications provide immediate criticism that allows students examine their mistakes and make real-time improvements, therefore promoting a

reflective learning process. Furthermore, group projects including peer reviews and online discussion boards give students great chances to evaluate their colleagues' work, offer helpful feedback, and improve their own writing in reaction to many points of view. This engaging, student-centered approach not only sharpens their writing ability but also gets them ready with necessary tools for success in both academics and professional life.

Despite its advantages, the implementation of MALL presents difficulties. Song and Song (2023) expressed concerns about an excessive reliance on AI, possible mistakes in feedback, and the necessity for educators to assist students in the proper usage of these tools. Moreover, Pingmuang and Koraneekij (2022) underlined the significance of coordinating gamification with substantial learning to prevent superficial attention. However, certain students found difficulties with digital literacy and occasionally technological problems that somewhat limited their involvement. Sometimes students with poor digital literacy found it difficult to use particular programs, which would cause frustration. For a few, especially in places with unpredictable network service, depending too much on internet access also presented a challenge.

Regarding strategies, students used several ways to increase their Mobile-Assisted Language Learning (MALL) writing competence. Common techniques included employing grammar-checking tools, drafting and rewriting texts using mobile applications, joining online writing communities, and consulting many models of written works for inspiration. By means of these exercises, students acquired habits of progressive writing, whereby they always improved their work using digital tools.

Some students additionally adopted metacognitive techniques, including creating particular writing goals and tracking their development via smartphone applications. Keeping track of development inspired students to remain constant and respect small adjustments. Designed with built-in statistics, mobile applications let students see their successes and identify trends in their writing behavior.

With students expressing thoughts and criticism via instant messaging and discussion boards, peer collaboration also became clearly valuable. These group projects built an impression belonging and let students see their writing from new perspectives. Peer feedback not only pointed up mistakes but also motivated students to consider helpful suggestions, thereby guiding proactive changes.

Students also used self-regulation techniques to create personalized study plans, set reminders, and schedule focused writing sessions. These techniques improved their sense of responsibility and support a more orderly way of learning languages. Some students employed voice-to-text tools for promptly idea development, therefore turning the initial writing process into a more flexible and natural activity.

Overall, these techniques, performed as collectively, show a move towards more self-regulated and cooperative learning models enabled by mobile technology, therefore highlighting the transforming power of Mobile-Assisted Language Learning (MALL) in language learning environments. Customizing learning opportunities, monitoring development, and getting swiftly suggestions assisted to build a more dynamic environment

promoting different learning requirements while encouraging personal freedom and active participation.

CONCLUSION

In conclusion, although Mobile-Assisted Language Learning (MALL) has various benefits for language acquisition, its effectiveness is depending upon appropriate implementation into pedagogical methods. A comprehensive strategy that combines with conventional writing pedagogy, continuous educator assistance, and techniques to minimize distractions will ensure that students obtain optimal advantages from mobile-assisted learning. Educators and policymakers should continue in investigating creative methods to use technology for the enhancement of writing instruction and the promotion of language proficiency. Furthermore, educational institutions require to allocate resources towards teacher training programs that provide educators with the necessary abilities to proficiently integrate Mobile-Assisted Language Learning (MALL) into their pedagogical approaches.

Moreover, collaboration between application developers and educators is crucial in order to ensure that Mobile-Assisted Language Learning (MALL) applications comply to educational objectives and suit learners' requirements. Creating adaptive learning technologies that adjust feedback and writing suggestions can significantly improve student engagement and educational results.

Subsequent research should investigate the influence of Mobile-Assisted Language Learning (MALL) on particular dimensions of writing, including argumentative writing, academic writing, and creative writing. Examining the impact of several demographic characteristics, including age, language competence, and cultural background, on the effectiveness of Mobile-Assisted Language Learning (MALL) may provide valuable insights for enhancing its application in diverse educational settings.

Ultimately, although Mobile-Assisted Language Learning (MALL) offers promising opportunities for language acquisition, its long-term effectiveness relies on ongoing assessment and enhancement. By merging technology with effective teaching methods, educators may optimally use Mobile-Assisted Language Learning (MALL) to develop professional and self-assured writers in the digital era.

ACKNOWLEDGMENT

I would like to express my deepest gratitude to all of the authors for their invaluable guidance and feedback throughout this research. This research was supported by LPPM Universitas Nahdlatul Ulama Surabaya.

REFERENCES

- Abbasi, M., & Hashemi, M. (2013). The impact/s of using mobile phone on English language vocabulary retention. *International Research Journal of Applied and Basic Sciences*, 4(3), 541–547. <https://api.semanticscholar.org/CorpusID:38850957>
- Aghajani, M., & Zoghipour, M. (2018). The comparative effect of online self-correction, peer-correction, and teacher correction in descriptive writing tasks on intermediate EFL learners' grammar knowledge the prospect of mobile assisted language learning (MALL). *International Journal of Applied Linguistics and English Literature*, 7(3), 14–22. <http://dx.doi.org/10.7575/aial.v.7n.3p.14>

- Ahmadpour, L., Yousefi, Mohammad Hossein. (2016). The Role of Mobile-assisted Language Learning on EFL Learners' Development of Writing Accuracy, Fluency, and Complexity. *Journal of Modern Research in English Language Studies*, 3(4), 105–118. <https://doi.org/10.30479/elt.2016.1581>
- Al-Hamad, R. F., Al-Jamal, D., & Bataineh, R. F. (2019). The Effect of Mall Instruction on Teens' Writing Performance. *Digital Education Review*, 289–298. <https://doi.org/10.1344/der.2019.35.289-298>
- Alisoy, Hasan., & Sadiqzade, Zarifa (2024). Mobile-Assisted Language Learning (MALL): Revolutionizing Language Education. *Luminis Applied Sciences and Engineering*, 1(1), 60-72. <https://doi.org/10.69760/lumin.202400002>
- Arsari, Made Hening Ayu., & Sumarni, S., & Darmahusni. (2023). Mobile Assisted Language Learning (MALL) in English Language Education. *English Language and Literature International Conference (ELLIC) Proceedings*. <https://jurnal.unimus.ac.id/index.php/ELLIC/article/view/12554/7137>
- Arvanitis, P., & Krystalli, P. (n.d.). Mobile Assisted Language Learning (MALL): trends from 2010 to 2020 using text analysis techniques. *European Journal of Education*, 4(1), 13–22. <https://doi.org/10.26417/461iaw87u>
- Ayan, D., & Akman, O. (2021). An Experimental Study on the Use of Mobile Learning in the Turkish Republic Revolution History and Kemalism: Adiyaman Provinve Example. *The Eurasia Proceedings of Educational and Social Sciences*, 20, 31-41. <https://doi.org/10.55549/epess.995342>
- Chakir, M., & Lamjahdi, A. (2024). Mobile Assisted Language Learning in EFL Contexts: Maximizing Vocabulary Acquisition through Messenger Apps. *International Journal of Language and Literary Studies*, 6(4), 178–192. <https://doi.org/10.36892/ijlls.v6i4.1875>
- Eroğlu, M., Kaya, V. D., & Özbek, R. (2017). Can Mobile Learning Be An Opportunity for Undergraduate Teacher Education?. *European Journal of Social Sciences Education and Research*, 11(2), 340. <https://doi.org/10.26417/ejser.v11i2.p340-349>
- Fatehi Rad, N., & Parsa, N. (2021). Impact of a Mobile-Assisted Language Learning (MALL) on EFL Learners' Grammar Achievement and Self-Efficacy. *International Journal of Language and Translation Research Autumn*, 2021(4), 71–94. <https://www.researchgate.net/publication/361438564>
- Iftikhar, N. (2025). "Mobile-Assisted Language Learning (Mall): Revolutionizing Second Language Acquisition." *Journal of Applied Linguistics and TESOL*, 8(1), 1038–1045. <https://jalt.com.pk/index.php/jalt/article/view/424>
- Kamasak, R., Özbilgin, M., Atay, D., & Kar, A. (2020). The effectiveness of mobile-assisted language learning (MALL): A review of the extant literature. In *Handbook of Research on Determining the Reliability of Online Assessment and Distance Learning* (pp. 194–212). IGI Global. <https://doi.org/10.4018/978-1-7998-4769-4.ch008>
- Krisbiantoro, B., & Pujiani, T. (2021). The effectiveness of mobile-assisted language learning to teach writing. <https://proceedings.aecon.ump.ac.id/index.php/aecon/issue/view/1>
- Le, T. M., Chi, H., & City, M. (2021). Students' Attitude Towards Using Smartphones and Portable Devices for Studying Writing. <https://doi.org/10.11250/ijte.01.03.004>
- Lei X, Fathi J, Noorbakhsh S and Rahimi M., (2022). The Impact of Mobile-Assisted Language Learning on English as a Foreign Language Learners' Vocabulary Learning Attitudes and Self-Regulatory Capacity. *Front. Psychol.* 13:872922. <https://doi.org/10.3389/fpsyg.2022.872922>

- Medel, A. P. P., Tesoro, J. F. B., Yazon, A. D., Mendoza, C. F., & Manaig, K. A. (2024). Effectiveness of PEARL Mobile Application in Enhancing the Academic Performance of Students in English. *Journal of Elementary and Secondary School*, 2(2), 15-26. <https://doi.org/10.31098/jess.v2i2.2281>
- Nalliveettil, George Matthew., & Alenazi, Talal Hail Khaled. (2016). The Impact of Mobile Phones on English Language Learning: Perceptions of EFL Undergraduates. *Journal of Language Teaching and Research*, 7(2), 264-272. <http://dx.doi.org/10.17507/jltr.0702.04>
- Oz, H. (2015). An investigation of preservice english teachers' perceptions of mobile assisted language learning. *English Language Teaching*, 8(2), 22-34. <https://doi.org/10.5539/elt.v8n2p22>
- Pingmuang, P., & Koraneekij, P. (2022). Mobile-Assisted Language Learning using Task-Based Approach and Gamification for Enhancing Writing Skills in EFL Students. *The Electronic Journal of E-Learning*, 20(5), 623-638. <https://doi.org/10.34190/ejel.20.5.2339>
- Putri, Silbila Enova., & Fakhurriana, Putri Ria. (2024). The Impact of Mobile Assisted Language Learning (MALL) on Student Motivation and Learning Outcomes: Literature Review. *Indonesian Journal of Primary Education*, 8(2), 229-238. <https://doi.org/10.17509/ijpe.v8i2.71114>
- Salah, M. Ali., Yunus, Kamariah., Alshaikhi, Turkey, Aliia, Abdussalam Mariie. (2022). The Impact of Mobile Assisted Language Learning (Mall) On the University of Tabuk Learners' Autonomy Considering The Kingdom Of Saudi Arabia's Vision 2030. *Journal of Positive School Psychology*, 6(8), 10341-10348. <https://mail.journalppw.com/index.php/jpsp/article/view/12673>
- Serin, O. (2012). Mobile learning perceptions of the prospective teachers (Turkish Republic Of Northern Cyprus sampling). *The Turkish Online Journal of Educational Technology* 11(3), 222-233. <https://www.researchgate.net/publication/334812582>
- Shortt, M., Tilak, S., Kuznetcova, I., Martens, B., & Akinkuolie, B. (2023). Gamification in mobile-assisted language learning: a systematic review of Duolingo literature from public release of 2012 to early 2020. *Computer Assisted Language Learning*, 36(3), 517-554. <https://doi.org/10.1080/09588221.2021.1933540>
- Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1260843>
- Tran, T. B. T., & Vuong, T. K. (2024). Mobile Devices and the Autonomy in English Language Learning: A Deeper Look at Van Lang University. *International Journal of TESOL & Education*, 4(3), 144-160. <https://doi.org/10.54855/ijte.24439>
- Wang, X., & Gunaban, G. B. (2023). Effectiveness of Mobile-Assisted Language Learning in Enhancing the English Proficiency. *Journal of Contemporary Educational Research*, 7(11), 140-146. <https://doi.org/10.26689/jcer.v7i11.5588>