

PAPER

Mobile Learning for Transforming English Writing Skills: A Systematic Review (2013–2023)

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ABSTRACT

Language learning has been transformed by the use of mobile learning (m-learning) technologies in educational settings, especially with growing interest in improving productive skills. Considering m-learning as a prominent menace, the objective of this paper was to investigate the effects of m-learning tools on English as a foreign language (EFL) learners' English writing proficiency. This study offers a thorough review of modern m-learning tactics and technologies. Three research questions were developed to frame this investigation. The preferred reporting items for systematic reviews and meta-analyses (PRISMA) technique was used to assess and categorize 21 selected papers published between 2013 and 2023 from the Scopus and Web of Science (WOS) databases. The subject of the study and methodologies were assessed by the content analysis of published articles. Convenience, enhanced engagement, motivation, self-paced learning, learning autonomy, and interactivity were the other six main study findings that were found. Consequently, this review can serve as a starting point for future research projects aimed at managing m-learning as well as new avenues of investigation for the development of English writing abilities. Finally, some recommendations for further research are included in the conclusion section.

KEYWORDS

mobile learning (m-learning), mobile learning applications, English writing skills, a systematic review, English as a foreign language (EFL)

1 INTRODUCTION

In the sphere of language instruction, mobile learning (m-learning) technologies have become ground-breaking instruments, offering fresh methods for enhancing English language skills. Because of their unparalleled portability and widespread internet access, smartphones are indispensable for educational purposes, in contrast to traditional computers [1]. The usage of mobile phones in language instruction in the classroom attests to their versatility and accessibility in supporting educational endeavors [2]. The potential of mobile devices to revolutionize English writing

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instruction is attracting the attention of educators and practitioners due to the swift progress of technology [3]. This comprehensive analysis of the literature attempts to shed light on the changes in m-learning during the past ten years (2013–2023) and how they have improved writing abilities in students studying English as a foreign language (EFL).

A literature review's objectives are to map out and assess the body of existing research, identify study gaps, and assess the literature's contribution to the topic in question. As a result, the goal of this study's study is to collect and analyze the body of existing literature and studies on m-learning applications for improving EFL learners' English writing abilities. To achieve the goals of the study, certain reviews are restricted to particular databases or publications, as suggested by Yen [6] and Zhang [7]. As a result, we exclusively used the Scopus and Web of Science (WOS) databases for our investigation.

The review's conclusions draw attention to the numerous benefits of integrating m-learning platforms into EFL writing training. Study has indicated that the use of mobile technology improves a variety of writing skills, including accuracy, coherence, organization, creativity, and critical thinking [8] and [9]. m-learning assists EFL learners in overcoming the challenges they have in traditional classroom settings by offering convenient and flexibly accessible opportunities for practice and improvement [9]. To the best of our knowledge, this is the first study that focuses exclusively on using m-learning to improve English writing abilities. This was noted as the spreadsheets from the WOS and Scopus databases were examined, and a search was carried out using the precise keywords shown in Table 1.

This study presents a knowledge gap that will allow researchers to concentrate on important areas for revision and improvement, as well as summarizing previous and current study findings in m-learning for writing skill improvement.

Due to the topic's objective, three research questions were developed:

RQ (1): What impact does m-learning have on EFL learners' writing skills?

RQ (2): How can English language learners be facilitated through m-learning to improve their writing skills?

RQ (3): What are the preferences of learners regarding the use of m-learning for improving English writing skills?

2 LITERATURE REVIEW

A fundamental overview of several interconnected study disciplines is provided by the literature review, which is valuable. Excellent review papers on the impact of m-learning on improving English writing skills may be found in the literature currently in publication.

2.1 Foundational theories on mobile learning

A theoretical framework called "mobile learning," or "m-learning," focuses on the application of technology and mobile devices to advance education and learning [8]. This idea was pioneered by certain researchers, whose works are often quoted to show how m-learning might support more 'individualized and adaptable' learning experiences for EFL students, especially when it comes to writing development [9].

Constructivism holds that knowledge is actively created by students through their interactions with the outside world and their experiences. Students can connect with knowledge in real-world circumstances thanks to its collaborative and

interactive features, which align with the constructivist approach [10]. A notable theoretical framework called “Situated Learning Theory” contends that learning happens organically through social interactions and real-world surroundings rather than being isolated from them [11]. m-learning facilitates contextual learning by providing students with the chance to engage with peers in real-world scenarios and access relevant resources, all thanks to its inherent mobility and connectivity [12]. By applying these fundamental beliefs, educators may design m-learning experiences that promote meaningful connections, active engagement, and contextual learning opportunities. In the end, this will raise the effectiveness of educational interventions across a range of situations [13].

2.2 Mobile learning in education

Due to its potential to improve learning outcomes, encourage accessibility, and adjust to students’ evolving expectations in the digital age, m-learning has become increasingly popular and attention-grabbing in the educational field [14]. In line with the study findings, these are some of the main justifications for implementing m-learning in the classroom [15]. Mobile devices are often moveable and accessible, allowing students to access information and learning resources from almost anywhere [16]. This accessibility eliminates barriers to learning, particularly for kids who might not have access to traditional educational materials. [17] claimed that individual learners’ desires and preferences are met via mobile learning.

Mobile learning platforms frequently provide continuous feedback [18], allowing students to track their progress and adjust their learning tactics as necessary. [19] said that adopting m-learning might lower the costs related to traditional classroom-based education, such as textbooks and tangible learning materials.

It might also provide a reasonably priced way to reach a wider audience [7] [33]. Mobile learning also increases learner motivation and engagement by incorporating gamified and interactive components [20]. Furthermore, mobile learning platforms can offer personalized and automated feedback and assessment, enabling students to track their progress over time and get prompt feedback on their writing [21]. When teachers incorporate mobile learning technology into the classroom, they can access a wealth of resources and instruments to enhance the teaching of writing skills [22]. Online writing portfolios, automatic grading and feedback systems, and collaborative writing platforms are some examples of these services [23] [24].

2.3 English writing skills and mobile learning

When studying EFL, developing writing abilities is essential since it promotes overall language development and expands learners’ academic and career options [20] [33]. Academic achievement in a variety of subjects depends on students’ ability to communicate their ideas and expertise well through writing [23]. Writing also helps students build their critical thinking skills and cognitive abilities by helping them structure their ideas and make persuasive arguments [25]. Writing well is a critical talent for job advancement in the workplace because it’s commonly needed for duties such as report writing, email correspondence, and documentation [27] [30]. Additionally, writing in a foreign language promotes vocabulary usage and grammatical structures, which aids in language acquisition and proficiency overall [7] [33].

Studies reveal that m-learning contributes significantly to the development of English writing skills [25] [26]. It offers learners a distinctive and convenient platform to refine and enhance their writing abilities [27]. Studies have shown that EFL

students can utilize their phones to enhance their writing abilities [28]. Additionally, m-learning systems offer a variety of tools that cater to different writing needs. For instance, study indicates that giving students practical writing experiences using mobile devices and applications can enhance their writing abilities and help to release their stress [29]. Mobile devices are often mandated for students to work together on projects, write about real-world topics, and take part in class discussions [30]. Using this approach makes writing skills more relevant and acceptable [31].

Research indicates that motivated and involved students are more likely to spend the time and effort required to improve their writing skills [33]. The valuable, real-world writing tasks made possible by m-learning improve learning experiences [34]. Collaborative writing projects are made possible by some m-learning apps, which improve knowledge acquisition and peer review [35]. But it's important to be aware of any possible drawbacks. Some research reveals that writing quality may suffer when using a mobile device due to social media distractions and constant notifications [36]. Long-term writing may also be challenging due to the potential for attention span disruption caused by brief interactions on mobile devices [37].

3 METHODOLOGY

The preferred reporting items for systematic reviews and meta-analyses (PRISMA) method was used to conduct a thorough and systematic review of articles on m-learning trends in the context of EFL instruction to enhance English writing skills (see Figure 1). PRISMA is a popular tool used by academics to assess the viability and reliability of review results because of its rigorous inclusion and exclusion criteria [4] [7].

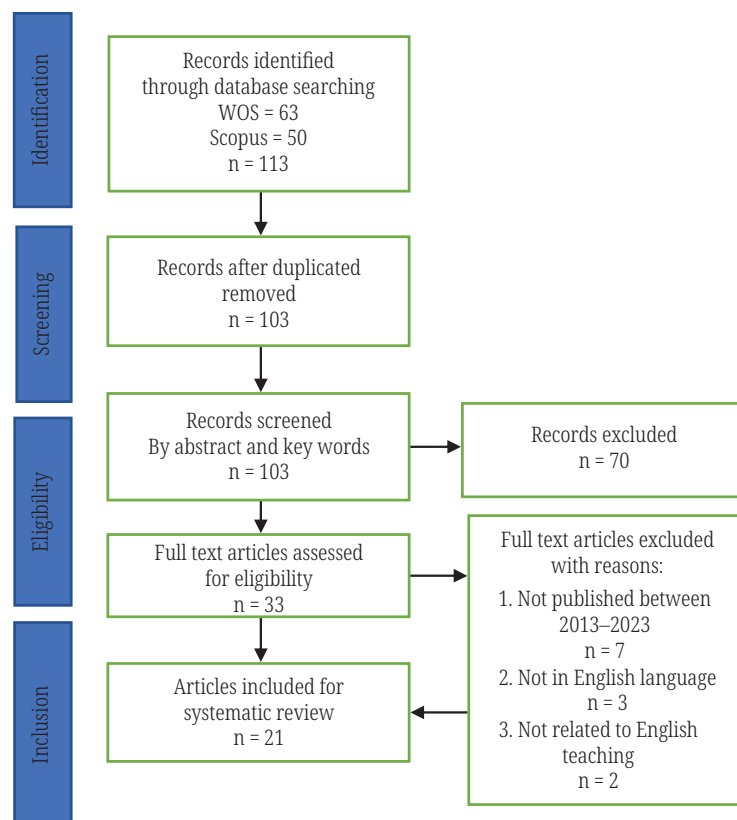


Fig. 1. PRISMA systematic review

3.1 Identification

Three steps were used in gathering the material. Databases were chosen first. Leading databases for information for scientific study include Scopus and WOS [31] and [32]. As a result, relevant research articles were found using particular keywords on the WOS and Scopus platforms. The data were filtered and exported into an appropriate format for analysis in the second step. The final stage involved cleaning the data to get rid of duplicates and inconsistencies before doing an overall analysis. Using this method, pertinent publications were chosen from both databases, with an emphasis on m-learning to enhance English writing abilities.

Table 1. Searching string used in the study

Database	The Search String
Web of Science (WOS)	In text (“mobile learning*” OR “mobile apps*” OR “mobile devices*” OR “mobile phone*” OR “mobile technology*” OR “mobile assisted language learning” OR “MALL”) AND (“enhancing writing*” OR “writing instructions*” OR “writing skill*” OR “writing skill improving*”)
Scopus	In text (“mobile learning*” OR “mobile apps*” OR “mobile devices*” OR “mobile phone*” OR “mobile tech*” OR “tech*” OR “mobile assisted language learning” OR “MALL”) AND (“enhancing writing*” OR “writing instructions*” OR “writing skill*” OR “writing skill improvement*”)

3.2 Eligibility and screening

Following the identification of articles and screening process was initiated to eliminate duplicates that were discovered across both databases. After the preliminary elimination of duplicates, 33 articles were left for additional examination. Twenty-one publications were found to be under the study’s aims. The evaluation’s inclusion and exclusion criteria were then applied to these 21 publications.

Table 2. Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Studies published between 2013–2023	Studies published before 2013
Studies from journals, books, articles	Conference materials, reviewed publications
Interventions with an English language focus	Interventions without an English language focus
Related to the use of m-learning trends to support writing skill enhancement	Not related to the use of m-learning trends to support writing skill enhancement

3.3 Included in

Table 3 enumerates the selected articles for this systematic review. A total of 21 articles were selected from the WOS and Scopus databases.

Table 3. Details of the selected studies

Study	Objectives	Sample(s)	Research Methodology	Results
Jeanjaroonsri Rungsima (2023) (Scopus)	To identify how the use of mobile devices to improve English writing abilities.	305 Public University students in Thailand.	Quantitative	Students improve their writing abilities and self-assurance; online dictionaries, spell checkers, and machine translation applications were especially well-liked.
Lina Lafta Jassim et al., (2019) (Scopus)	How mobile devices affects students' motivation and level of involvement in learning English writing.	40 male university students in Iraq aged between 18 and 19.	Case study	Mobile has proven to be useful in helping EFL students improve their English writing skills. They will be more confident and active writers.
Subadrah Madhawa Nair et al., 2020 (Web of Science)	How Power-Point presentations and cellphones impact on Pakistani students' ability to write English essays.	90 intermediate students from College in Lahore, as well as two teachers.	Mixed method	The use of smartphones dramatically enhanced students' descriptive writing abilities and increased their desire to learn.
Yan Chen et al., (2017) (Scopus)	How learners' narrative writing abilities are impacted by iPads and digital handwriting.	5 ELLs from Chinese and Mexican families.	Instrumental case study	Using this mobile technology boosted ELLs' learning motivation and narrative writing quality.
Siti Sarah Binti Musthaffa Kamal et al., (2021) (Scopus)	Investigate learners' opinions about m-learning and its application in improving their English writing abilities.	21 articles pertaining to the utilizing m-learning in writing skill among ESL learners.	Systematic review	Meaningful learning, and successful learning environments. As a result, ESL students had positive attitudes toward mobile learning.
Imelda et al., (2019) (Web of Science)	How writing and m-learning with videos affect enhances writing skills of EFL students at various levels of originality.	61 Indonesian students from vocational high schools.	Quasi-experimental	Learners' writing abilities were enhanced using the process writing method and video-based mobile learning.
Rastislav Metruk (2022) (Scopus)	The study is aimed to assess original, peer-reviewed research publications on smartphones in English language acquisition.		Systematic review PRISMA	The results point to a range of constraints in the papers that were analyzed; almost one-third of the publications had no limits at all, which calls for more study to address issues that practitioners and students confront.
Charisa F. Llema et al., (2019) (Scopus)	To create an m-learning application to help students with their writing and reading.	12 English and non-English language speakers.	Collaborative method	The MLERWS mobile app for Android includes translations from English to Tausug, the native dialect of Bongao, to help students master lessons on writing and reading.
Cemil Yurdagül et al., (2018) (Scopus)	How students' opinions about using smartphones to improve language proficiency.	The study included 294 prep school students from a well-known Turkish institution.	Mixed-method	Pupils preferred to study and practice their English through entertaining pursuits such as peer messaging, gaming, and conversation.
Ghada Awada (2016) (Scopus)	How the effect of WhatsApp technology in improving critique writing skills among English learners.	52 English learners from English-medium universities.	Mixed method	WhatsApp integration to learning process was more effective than other methods in improving critical writing skills of foreign language learners.
Rui-Ting Huang et al., (2019) (Scopus)	Examine the connection between language proficiency and the ongoing desire to acquire the language using mobile platforms.	This study included 323 undergraduate students who had prior experience with mobile English learning.	Quantitative	Mobile English learning continues with the purpose of improving language skills, and performance is positively impacted by the flexibility advantage and self-management of learning.

(Continued)

Table 3. Details of the selected studies (*Continued*)

Study	Objectives	Sample(s)	Research Methodology	Results
Rafidah Abd Karim et al., (2021) (Scopus)	To evaluate how well a mobile mind mapping application supports students' ability to write persuasively in English.	The participants in this study were 45 ESL university students from public university in Malaysia.	Quasi-Experimental	By Mind mapping university students' argumentative writing skills improvement significantly.
Sasi Sekhar Mallampalli et al., (2021) (Scopus)	How writing skill development is influenced by using mobile apps such as Google Docs, Google Slides, and WhatsApp.	Cihan University tertiary level 28 students.	Mixed method	The results showed that participants who utilized the Google Docs and Google Slides applications outperformed those in the WhatsApp group.
Muhammed Azad (2014) (Scopus)	Determine how effective mobile devices are for language acquisition.	20 EFL Sulaimani University students in Iraq.	Qualitative Research	Smartphones encourage EFL students to improve their worldwide exam awareness and language proficiency from all skills.
John Maurice Gayed et al., (2022) (Scopus)	Identifying AI tools impact on EFL students' writing skills improvement.	80 EFL Japanese students from public university.	Quasi-Experimental	Participants writing under the AI KAKU condition were able to write sentences with greater "sentence fluency."
Aida Abdul Rashid et al., (2019) (Web of Science)	How Padlet can improve collaborative writing in English language learning.	87 students from a public university of Malaysia.	Qualitative Survey	Padlet inspires students to engage in class activities, reduces anxiety, promotes contact between students and the instructor, and enhances language accuracy through peer learning.
Saman Ebadi et al., (2020) (Scopus)	How mobile-based dynamic assessment can affect English language learners' writing skills.	30 English language learners in an Iranian school.	Mixed method	Usage of mobile based dynamic assessment improves EFL learners' writing proficiency as a result of partnerships between learners and instructors using text and voice-based mediation.
Noni Augustina et al., (2022) (Scopus)	To identify the m-learning effect on improving critical thinking skills in EFL learners.	65 high school students in Jakarta.	Quasi-Experimental	Experimental group students had much higher levels of critical thinking than students in the control group.
Xiao Liu et al., (2022) (Scopus)	Can Business English writing creativity be affected through self-regulated learning strategies using the Superstar mobile app.	48 second year students of Chinese university.	Quantitative	Study discovered a strong favorable correlation between Superstar app and creative thinking in English writing skills as a considerable improvement in students' post-tests.
Mariam Al-Shehab (2020) (Scopus)	How students in the English program might improve their writing abilities using mobile-assisted language learning.	40 Kuwait University female students.	Qualitative	For ESL Arab learners, mobile-assisted language learning improves content and grammar but has little effect on mechanics and word choice.
Saman Ebadi et al., (2020) (Scopus)	To investigate mobile-based dynamic assessment (MDA) effects on the writing abilities of EFL students.	30 EFL learners in Iran language school.	Mixed	MDA enhances the writing proficiency of EFL learners. Participants indicate satisfaction, efficiency, convenience, and decreased social pressure.

3.4 Iteration

The outcomes of this systematic review were enhanced by employing a forward and backward search to locate new papers. These papers were found by using

search engines such as Google Scholar and Scopus to look through the references of the chosen publications. The chosen studies shed light on the many m-learning platforms that are used to improve proficiency in English writing skills.

4 RESULTS

The comprehensive systematic review's findings demonstrate that using m-learning technology greatly enhances English writing skills. Since the incorporation of m-learning platforms, there have been notable improvements in the areas of accuracy, fluency, organization, critical thinking, and creativity in the teaching of writing for EFL. These findings demonstrate how m-learning, which offers convenient chances for practice and writing skill improvement, can successfully meet the challenges faced by EFL learners.

4.1 RQ1: What impact does mobile learning have on EFL learners' writing skills?

The integration of m-learning platforms into EFL writing classes has been demonstrated in multiple studies. For instance, employing smartphone apps to enhance spelling and grammar can greatly boost precision and lower errors made by EFL learners in their writing [3] [4]. Furthermore, EFL learners can produce more precise and logical sentences by using word prediction apps [17] [21].

By facilitating real-world textual conversations, text messaging apps have made it possible for EFL students to practice writing in a more laid-back and interesting setting [22]. Real-time peer feedback is made possible by these technologies, which promote the development of critical thinking, creative thinking, and writing mechanics. Through increased accuracy, fluency, organization, critical thinking, and creativity, m-learning often helps EFL students write better [23]. Additionally, mobile learning can help EFL students with the challenges they frequently face in developing their writing skills [24]. m-learning can help with these issues such as self-management of learning and text reviewing, by providing opportunities for practice and progress [24] [33]. With m-learning, students may access writing tasks and tools anytime, anywhere, offering personalized and adaptable learning experiences [23].

A study that concentrated on vocabulary and grammar development looked at ChatGPT's effectiveness in enhancing writing abilities in foreign languages. The results demonstrated that ChatGPT is an effective tool for language learning, with significant increases in word count, unique vocabulary usage, and average phrase length [18] [33].

In conclusion, including m-learning in EFL writing classes helps students' writing abilities to grow. Regular writing practice is made easier by m-learning, which improves fluency. Additionally, it offers resources and instruments to enhance spelling and grammar via interactive activities and collaborative projects, fostering critical thinking skills. Additionally, by providing students with access to a variety of writing genres and styles through multimedia resources and interactive tasks, m-learning fosters originality in EFL writing. Finally, m-learning provides EFL learners with intrinsic and extrinsic motivation [4] [26].

4.2 RQ2: How can English language learners be facilitated through mobile learning to improve their writing skills?

By offering adaptable, easily available, and engaging platforms that boost student engagement and personalized learning experiences, m-learning helps students improve their writing abilities [38]. Facilitation aspects are outlined in Table 4.

Table 4. Facilitation features

Key Feature	Study
1. Selecting appropriate M-learning tools	Siti Sarah Binti Musthaffa Kamal et al., (2021); Saman Ebadi et al., (2020); Noni Augustina et al., (2022); Aida Abdul Rashid et al., (2019); Subadrah Madhawa Nair et al., (2015)
2. Gamifying the learning process	Imelda et al., (2019); Siti Sarah Binti Musthaffa Kamal et al., (2021); Noni Augustina et al., (2022); Rafidah Abd Karim et al., (2021); Subadrah Madhawa Nair et al., (2015)
3. Instructor involvement	Saman Ebadi et al., (2020); Noni Augustina et al., (2022); Xiao Liu et al., (2022); Yan Chen (2017); Sasi Sekhar Mallampalli et al., (2021); Charisa F. Lema et al., (2019); Ghada Awada (2016)
4. Encourage self-reflection	Rui-Ting Huan et al., (2019); Y. Chen et al., (2017); Ratislav Metruk (2022); Noni Augustina et al., (2022); Charisa F. Lema et al., (2019)
5. Support and recourses	Saman Ebadi et al., (2020); Subadrah Madhawa Nair et al., (2020); Rungsima Jeanjaroonsri et al., (2023); Aida Abdul Rashid et al., (2019)
6. Cultural sensitivity	Imelda (2019); Jeanjaroonsri Rungsima (2023)
7. Incorporate real-life contexts	Charisa F. Lema et al., (2019); Saman Ebadi et al., (2020); Rui-Ting Huang et al., (2019); Sasi Sekhar Mallampalli et al., (2021); Imelda et al., (2019)

As shown in Table 4, m-learning should be utilized in conjunction with appropriate instructional strategies, such as offering clear instructions on writing techniques and scaffolding [19] [26]. Gamification of the learning process is another aspect of facilitation [14] [16], which has been shown to boost EFL students' motivation and engagement with writing projects [14] [16] [31]. m-learning platforms offer a plethora of materials and tools that EFL students can take advantage of [34], and they can also foster their creativity [36].

Instructors play a crucial role in creating interesting writing tasks and giving students clear instructions to follow [37]. Self-reflection is another facilitation technique for enhancing EFL learners' writing skills through m-learning [38]. m-learning helps students become more self-aware and metacognitive by allowing them to reflect on their writing process [38]. The use of digital libraries, online writing forums, and applications for vocabulary and grammar development to increase writing abilities is another crucial aspect of m-learning [39].

When implementing m-learning to enhance EFL learners' writing abilities, cultural sensitivity is the most crucial factor to consider [12]. When creating writing tasks and giving comments to EFL students, teachers should take their cultural backgrounds and experiences into account [18]. Studies have shown how important cultural sensitivity is for enhancing EFL students' writing skills through m-learning [34] [35]. Real-world scenarios can be included in writing assignments to improve EFL learners' writing skills through m-learning [37]. In the end, there is proof that EFL students who receive m-learning can write more effectively [4] [7] [22].

4.3 RQ 3: What are the preferences of learners regarding the use of mobile learning for improving English writing skills?

The majority of EFL students are in favor of including m-learning in their writing tasks [16]. They see m-learning as a handy, user-friendly tool [18]. Students value the flexibility and convenience that m-learning offers since it allows them to practice writing outside of traditional classroom settings [12] [14] [16]. EFL learners are empowered by m-learning for writing skills because it allows them to get immediate feedback on their work, which boosts motivation [20] [22].

In conclusion, EFL students' motivation and engagement can be raised by the personalized learning experiences that m-learning enables [18] [31]. The choices of students for adopting m-learning to enhance their English writing are listed in Table 5.

Table 5. Preferences of learners regarding the use of m-learning for improving English writing skills

Preferences	Study
Convenience	Rungsima Jeanjaroonsri et al. (2023); Cemil Yurdagül et al. (2018); Lina Lafta Jassim et al. (2019); Siti Sarah Binti Musthaffa Kamal et al. (2021)
Learning Flexibility	Jeanjaroonsri Rungsima (2023); Lina Lafta Jassim et al. (2019); Subadrah Madhawa Nair et al. (2020)
Enhanced Engagement	John Maurice Gayed et al. (2022); Aida Abdul Rashid et al. (2019); Saman Ebadi et al. (2020)
Motivation	Subadrah Madhawa Nair et al. (2020); Nasibeh Mahi Gharehblagh (2020); Yan Chen et al. (2017); Siti Sarah Binti Musthaffa Kamal et al. (2021); Imelda et al. (2019)
Learning Autonomy	Rastislav Metruk (2022); Aida Abdul Rashid et al. (2019); Saman Ebadi et al. (2020); Noni Augustina et al. (2022)
Self-Paced Learning	Rui-Ting Huang et al. (2019); Rafidah Abd Karim et al. (2021); Sasi Sekhar Mallampalli et al. (2021); Rastislav Metruk (2022)

5 DISCUSSION

Mobile learning systems offer many advantages for English language study, including the development of writing skills [4]. As mentioned in the study papers above, these platforms function as m-learning tools for writing instruction. The results of the studies showed that using a variety of platforms—such as mobile apps, word prediction apps, spell-checker apps, messengers, and text messaging apps—can help with increasing writing skills in m-learning trends. Typically, these apps offer a structure for evaluations and peer learning. However, at all academic levels, teachers and students have not yet properly implemented some m-learning methodologies. For example, there is a dearth of research on the application of m-learning to enhance writing abilities at all educational levels, including postsecondary and secondary [8] [10]. Although teachers are the ones who instruct students in writing, the studies in this systematic review focused on students rather than teachers. All educational levels can still use a variety of m-learning tools, while there is still much to learn about language teaching and learning [26].

6 CONCLUSION

Rather than the abundance of material from many sources, the main goal of this study was to give a thorough and condensed evaluation of the existing literature and research activities that were specifically contained in the Scopus and WOS journals. Consequently, it provided valuable insights into the development of m-learning study for the enhancement of writing skills, as demonstrated by the PRISMA analysis in Section 3. Therefore, it could serve as a point of reference for academics, researchers, and decision-makers as they comb through potential study avenues related to m-learning management to improve writing skills. Furthermore, by encouraging multidisciplinary collaboration among academics, this study may open the door for previously undiscovered domains of m-learning within or outside of its premises, such as academic or business writing skills.

Furthermore, this kind of support can be applied to theoretical and practical contributions that aim to lessen the burden of teaching foreign languages, and the effects of m-learning have opened up a new era in language acquisition through improved technological integration. To achieve this, a comprehensive examination of the 21 publications chosen for analysis is carried out in this work using the PRISMA analytic approach within the decade of published articles. The final list of 21 publications is analyzed, reviewed, and categorized by research topics after two types of keyword-based searches were conducted on the WOS and Scopus databases. The purpose of this study is to assist EFL researchers in comprehending and evaluating published publications in light of possible future research endeavors.

This review paper has some flaws all around. Firstly, because the analysis was limited to articles published in Scopus and WOS, we were unable to focus on the body of existing research on m-learning for improving writing skills. We were unable to cover the whole range of literature that was available in this manner. This is the compromise we had to make to limit the scope of our research. The second focus was on the years 2013–2023, which might have limited the scope and comprehensiveness of the analysis. Prospective researchers can, however, use a variety of databases and publications to study different subjects for deeper exploration.

Additionally, the review has offered several suggestions for further research:

- Less focused preferences are shown in Table 5. Future research and analysis in a digital age with cutting-edge m-learning applications can investigate more inexperienced and effective m-learning preferences in contrast to the chances and problems presented by EFL learners. Digital technology for education, such as m-learning platforms, can be used to explore various methodologies.
- The disadvantages of using m-learning to improve EFL writing skills are the subject of yet another study.
- As the primary focus of this study is on the m-learning aspect of the study for writing skills, categorizing materials and apps is another viewpoint to consider.
- A further factor in the integration of m-learning in the classroom is the role that educators and legislators play in serving as a network function to facilitate its adoption.
- Notably, the evaluation did not look at how outside variables—such as cultural contexts, laws governing education, and the technological infrastructure of the universities and nations where they are located—affect the execution and outcomes of m-learning initiatives.
- Table 4 indicates that self-reflection interpretation in a m-learning environment can be useful for improving writing skills; this area could be a major focus of future study.

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