A SYSTEMATIC REVIEW ON MOBILE ASSISSTED LANGUAGE LEARNING IN ENGLISH LANGUAGE TEACHING

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ABSTRACT

This study seeks to analyze and synthesize empirical studies on the use of mobile technology in English language teaching. The following criteria were used to select the research articles for this study: (1) peer-reviewed studies, (2) the field of the study must be the implication of MALL, (3) published within the last five years, and (4) studies must be in Asian context. A total of twenty-five published research articles were reviewed in terms of research design, learning context, participant, and settings. The electronic searches for these studies were conducted using search engine databases (e.g., ERIC and Google Scholars) as well as some reputable journal websites (e.g. link.springer.com). The results showed that most of the studies reviewed are mixed-methods and were mainly conducted in Indonesia. The finding also revealed four common topics including the use of MALL was motivating, increasing students' performances, supporting language learning, and the challenges students face due to Mobile Assisted Language Learning. Overall, the findings indicated that Mobile Assisted Language Learning had a positive impact on the educational context, particularly in English language teaching.

Keywords: English Language Teaching, Mobile assisted language learning, English language teaching, Mobile Technology

A. INTRODUCTION

The implementation of latest technologies in English language teaching has grown significantly to the importance both in literature and in educational practice. Mobile phones/devices, which are becoming increasingly popular among educator and students. According to Polakova & Klimova (2019), today's students represent a generation who grew up with new technologies and teachers need to follow them as part of students' learning process. One of the current developments in the educational process is the use of mobile technology. This term is known as Mobile Assisted Language Learning (MALL). According to Bezircilioglu (2016), Mobile Assisted Language Learning is the integration of mobile devices into the language learning process. Kukulska-Hulme & Shield (2008) define Mobile Assisted Language Learning as a type of technology-enhanced learning that can be applied in a variety of ways, including face-to-face, distance learning, or online learning. It appears that using a mobile application for self-study of the English language seems to be beneficial and effective for the students. This independent learning style can be referred to as autonomous learning. Furthermore, Miangah & Nezarat (2012) confirmed that using Mobile

devices has two characteristics: portability and connectivity. The ability to move the mobile devices while bringing the material is referred to as portability. This means these devices are portable, allowing teachers and students to learn anytime, anywhere. Connectivity means that mobile devices have to be able to connect with and communicate with the network.

Teaching English using technology can be an alternative to help teachers in providing students with creative and engaging materials. Incorporating mobile technology into the classroom, according to Dias & Victor (2022) allow teachers to create interactive presentations. Teachers can provide materials and track of their students' progress. The finding also revealed that the teacher can upload and edit comments, and students could save their feedback. Teachers can easily update student data outside the classroom. This means that both the teachers and the students are free to choose their own learning activities. In addition, bringing new technology into the classroom can create learning more innovative. The implementation of Mobile Assisted Language Learning has made a significant contribution to students learning. Integrating MALL into the classroom helps increase students' enthusiasm and performance while they are studying. Moreover, Habibi (2020); Saraswati et al., (2021) claim that using the Duolingo application increases learners' motivation and attitude towards learning English and encourages them to actively practice the language in real-life situations. More benefits of mobile learning are also noted by Ali et al. (2019) that MALL features not only support learning easily and comfortably but also encourage learners to learn in a collaborative environment.

Both developed and developing countries have seen a widespread adoption of new technologies, particularly mobile phones. According to Mustafa & Sailin (2022), developed countries are where mobile learning is most often used, since it is more accessible and affordable there. It is now widespread practice in many countries and in a variety of educational settings to teach and study English using mobile phones. Furthermore, this study reviews empirical research conducted in an Asian contexts in order to describe the emerging evidence and the development of Mobile Assisted Language Learning (MALL) in English language teaching. Some studies of mobile applications use have met the goals of teaching English. This is due to the fact that mobile devices offer features and applications that support language learners to enhance their language skills. A previous study by Putra et al. (2018) found that using ORAI mobile applications enables learners to improve their speaking skills. It is because this application can be used to track students' progress in speaking, especially in pronunciation. Furthermore, Chartrand as cited in Nariyati & Pratiwi (2020) state that language learners and teachers can easily access the learning materials. Since, using MALL provides internet access, this allows language learners to have rich of information or reference related to language learning materials. Overall, MALL has some benefits for teachers, students and teaching and learning process. Moreover, Esmaili & Shahrokhi (2020) found that significant differences between students who used the Memrise applications of collocation learning of Iranian EFL learners and those who received traditional teaching. This indicates that mobile learning has the capability to help students improve their English skills.

As a result of these views, this analytical review aims to analyze and summarize research articles on the application of Mobile Assisted Language Learning in English language teaching between the year 2018 and 2021 focused on four codes in terms of: (1) research design, (2) learning context, (3) participant, and (4) setting. Then, synthesize their findings to meet the proposed objective: to discover the most frequently topics and patterns of the use

of Mobile Assisted Language Learning in English language teaching in the Asian contexts. This research also aims to gain an in-depth understanding and knowledge of the latest evidence on the use of MALL, which will serve as up-to-date references in English language teaching.

B. METHOD

The focus of this analytical study is to assess empirical studies on the use of mobile technology in English language instruction in order to comprehend the implications of Mobile Assisted Language Learning. According to Clark and Cresswell (2010), literature review is the process of synthesizing books, journal articles, and other literature that summarizing and critiquing the previous and current state of information regarding a topic, arranging the findings into subtopics, analyzing, and presenting the results. A systematic search was conducted for this study in two stages: determining the inclusion and exclusion criteria and conducting a literature search and analysis.

The following inclusion and exclusion criteria were used to select the research articles for this study: (1) peer reviewed studies, (2) the field of study must be the implication of MALL in educational settings. Mobile devices or mobile applications that were not used in this studies are excluded. Mobile applications should be designed for language learners, (3) the time frame for this study was set between 2018 and 2022, (4) studies must be conducted in Asian context, other contexts outside Of Asian are excluded. This study used three strategies for conducting a literature search process. First, electronically search the following databases: Google Scholar and Eric (Education Resources Information Center), websites of journal publisher (e.g. link.springer.com) and reputable Indonesian journals (e.g. Teflin and IJOLE). Keywords used in database and journal searches included general terms, such as Mobile Assisted Language Learning, Mobile Assisted Language Learning in ELT, The use of mobile application in English learning. Second, The articles reviewed were taken from Acuity, Celtic, Cogent Education, ELT Forum, Indonesian Journal of English Language Teaching and Applied Linguistics, International Journal of Current Science Research and Review, International Journal of English Linguistics, International Journal of Language Education, Journal of English Education, Journal of English Language Learning, Journal of English Language Teaching, Journal of English Language Literature and Teaching, Journal of Education Technology, Journal of English Language and Pedagogy, Journal of English Teaching, Language Education and Acquisition Research Network, Language Teaching Research Quarterly, and Voices of English Language Education Society. Third, identify and analyze the data. The findings were classified in order to create the emerged topics and patterns based on the most common findings.

C. FINDINGS AND DISCUSSION

1. Characteristics of Research on Mobile Devices Use in English Language Teaching

A total of twenty-five research articles published in the previous 5 years were reviewed between 2018 and 2022. Twenty-five studies were matched with the inclusive criteria on the use of Mobile Assisted Language Learning in English language teaching. As shown in Table 1, most studies on the use of mobile technology were conducted between 2020 and 2021. Most of the empirical studies are presented as mix-method (28%). The second was quasi experimental (24%) followed by the quantitative method (20%).

The second most prevalent research design on the use of Mobile Assisted Language Learning in ELT was a descriptive qualitative (12%) followed by collaborative action research (8%), case study (4%), and library research (4%). The most of the studies examined (88%) had students as research participants, with a few teachers (12%) also participating. The majority of studies were conducted in Indonesia (52%) followed by Iran (12%), Philippines (8%), Thailand (8%), Kuwait (8%), Saudi Arabia (4%), Pakistan (4%) and Vietnam (4%).

Table 1. Summary of research studies on the use of MALL in English language teaching

Characteristics	N	%
Publication Year		
2018	2	8
2019	5	20
2020	9	36
2021	7	28
2022	2	8
Research Design		
Qualitative		
Descriptive	3	12
Case Study	1	4
Collaborative Action Research	2	8
Library research	1	4
Quantitative		
Quantitative	5	20
Mix method	7	28
Quasi Experimental	6	24
Participants		
Student	22	88
Teacher	3	12
Area Context		
Indonesia	13	52
Philippines	2	8
Thailand	2	8
Kuwait	2	8
Saudi Arabia	1	4
Iran	3	12
Pakistan	1	4
Vietnam	1	4

2. Major Research Topics of the Studies
In this section, categories of finding across of twenty-five studies on the use of Mobile Assisted Language Learning were discussed and categorized. These topics and patterns were presented, with the most common findings discussed first.

a. First topic: The Use of MALL was motivating and easy to use
The most significant topic emerged from twenty-five articles publications' finding on the relevance of Mobile Assisted Language Learning was motivated them to enhance their English skills. These studies examined how MALL improved the students' motivation in

learning English (Al Shehab, 2020; Ali et al, 2019; Aratusa et al, 2022; Ataeifar et al, 2019; Ghorbani & Ebadi, 2020; Keezhatta & Omar, 2019; Nuraeni, 2021; Waluyo, 2018). As shown by a study conducted by Kezzhatta and Omar (2019) that there is an increase in motivation which describe how MALL based reading activities in EFL contexts in four public secondary schools in Saudi Arabia promoted MALL activities as stimulating, motivating, and entertaining. The students were motivated to acquire reading comprehension skills, which led to improved their reading comprehension. Another study by Al Shehab (2020) revealed that MALL learners' autonomy could lead to practical strategies for boosting motivation and writing skills of Intensive English Program (IEP) students in Kuwait University. Participants also stated the application they used to be easy to use, accessible, and helpful in learning English in and out of the classroom (Hoi & Mu, 2021; Lim & Arcilla, 2021; Prayogi & Wulandari, 2021; Putra & Santosa, 2020; Sari & Sulistyo, 2022). This means that mobile technology encourages participants to learn English whether formal or informal as a convenient educational tool anytime and anywhere. However, according to Lim & Arcilla (2021), guidelines for responsible use of mobile devices in the classroom should be developed and implemented. Based on a study sponsored by Hoi and Mu (2021), teachers play a significant role in assisting students with the educational advantage of mobile devices for language learning in order to facilitate students' acceptance of the MALL.

b. Second topic: The use of MALL was increasing students' performances
Technology not just altered traditional teaching methods, but has also resulted in the development of new materials for learning English. The participants agreed that using MALL help them in improving and assessing their English skills (Al-shehab, 2020; Esmaili & Shahrokhi, 2020; Ghorbani & Ebadi, 2020; Katemba, 2021; Mengorio & Dumlao, 2019; Miqawati, 2020; Sari & Sulistyo, 2022; Sutami, 2021; Thedpitaka & Somphong, 2021; Waluyo, 2018). As one of the empirical studies, Al- Shehab (2020) compared mobile phone use during writing tasks by students of the Intensive English Program (IEP) in Kuwait university brought about more engagement and enthusiasm than applying the traditional approach to the writing process. The results indicate that the MALL approach to the writing process could improve students' writing skills in terms of content and grammatical parts. Another interesting study was done by Katemba (2021) that this experimental study described how MALL improves students' vocabulary achievement in a rural Indonesian school. In this study, the MALL method was used through Short Message System (SMS). Students can read the vocabularies, look up the synonyms, and understand of those meaning before coming to the classroom. The results revealed a large performance gap between students who were taught using MALL and those who were taught using traditional methods. Likewise, a study conducted by Miqawati (2020) describing how MALL facilitates pronunciation learning through the Tflat English pronunciation mobile courseware. The findings show that Tflat courseware materials and practices could improve students' pronunciation learning, raise student engagement levels, and foster positive attitudes towards learning with mobile technology. The results of this study also describe the potential of Mobile Assisted Language Learning (MALL) in encouraging students to participate in classroom activities and monitor of their progress.

c. Third topic: The use of Mobile application was supporting language learning
The integration of mobile devices for educational purposes would be a useful tool to facilitate language learning through some kind of mobile application. A variety of mobile apps designed specifically for language learning, such as Duolingo, Quizlet and Moodle to

support students with their vocabulary, grammar, and reading comprehension (Mengorio & Dumlao, 2019; Prayogi & Wulandari, 2021; Saraswati, et al. 2021). Likewise, a study conducted by Darsih & Asikin (2020) discovered that six mobile applications that EFL learners frequently use to assist them learn English are Kamusku, Google Translate, YouTube, Elsa Speak, Google Meet and Zoom application. Besides being helpful, it is also user-friendly. The effectiveness of MALL in supporting language learning can be seen in another study conducted by Prayogi & Wulandari (2021) describing how Quizlet was a practical learning platform that helps students to learn vocabulary. The results revealed that Quizlet has a variety of features and modes which could really help the students to learn, practice, and deepen their understanding of words independently. Students can use the mobile application to encourage autonomous English learning. To prove it, a study conducted by Saraswati et al. (2021) found that integrating Mobile Assisted Language Learning through Duolingo application could support EFL learners autonomously. The finding showed that using Duolingo application could improve students' attitudes in learning English independently and actively practicing the language in a real-life situation. Students' parents also thought the application was beneficial in supporting students' learning process. It may be concluded that the incorporation of mobile technology has made learning easier and more practical.

d. Fourth topic: The use of MALL was challenging for students
The integration of Mobile Assisted Language Learning has the potential to improve the standards of teaching and learning. Despite the fact that MALL has a positive impact, some findings have also highlighted the challenges that students face, as well as the limitations of MALL's implication in language learning. From a study by Aratusa et al. (2022), it can be noted that MALL has its challenges. The following problems have been looked into as potential contributors to the difficulties students encounter when learning pronunciation using MALL. The concerns were about the performance of their phones, internet access, the possibility of distraction, and their comfort with using mobile phones for learning. When students use mobile devices inappropriately in the classroom, it can be a source of distraction. As shown by Putra and Santosa (2020), a study demonstrated more emphasis on the challenges of MALL in the Intensive English Course (IEC) for freshman students in terms of learning activities and the usage of teaching media. The findings also indicate that students need a new, engaging, interesting, and challenging English language learning materials such as a smartphone-based application that covers these four English skills in learning activities. Speaking, listening, writing, and reading are the four skills of English. To solve these issues, the study suggests that students require authentic learning materials that can help them enhance their four competencies for coping with Industry 4.0.

D. CONCLUSION
The aim of this analytical review is to develop a comprehensive understanding of the implication of Mobile Assisted Language Learning in English language teaching. The inclusion criteria were used to select the research articles for this study. A total of twenty-five studies were closely reviewed in order to identify the topics and patterns based on common findings by describing the study focus, research design, learning context, participants, and settings. According to the results if twenty-five studies, the majority of evidence-based studies are presented as mixed-method studies, in which the participants are mainly students and mainly take place in the Indonesian context. The adoption of Mobile Assisted Language Learning could offer several benefits in the Asian context. The various teaching strategies used with mobile applications are different from traditional learning. This

study on the implementation of Mobile Assisted Language Learning revealed four emerging topics, including how MALL was motivating, increasing student performance, and supporting language learning. However, the finding also discovered the challenges faced by students due to the implication of Mall. According to the overall findings, Mobile Assisted Language Learning can be one of the alternative tools to support students in the learning process. As a suggestion for further research, it is possible to carry out research on the implementation of game applications based on students' needs in English language teaching with a larger number of publications.

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