

EFL SPEAKING STUDENT READINESS TO USE MOBILE-ASSISTED LANGUAGE LEARNING

Muhammad Mugni Assapari^{1*} and Rosyadi Hidayati²

^{1,2}Universitas Islam Negeri Mataram, Indonesia

Mugniassapari2021@uinmataram.ac.id¹ and rosyadihidayati@gmail.com²

*correspondence: mugniassapari2021@uinmataram.ac.id

<https://doi.org/10.24071/llt.v26i1.5240>

received 7 October 2022; accepted 19 April 2023

Abstract

In recent years, mobile-assisted language learning has been on the rise as an instructional approach. While some innovative media platforms have been highly studied, Thus, this study focused on how students' readiness and learning outcomes the use of mobile phones to facilitate individualized instruction in public speaking as part of an English as a Foreign Language course. Data were collected from (n=42) students in non-English department classes who participated in this study. They were asked to answer an online questionnaire that surveyed their readiness and outcomes using Google Foam in their speaking skills. All participants performed two class projects aimed at aiding them in exploring mobile-assisted language learning using their own mobile devices. However, the students self-reported some opportunities and benefits for English Foreign Language Learners (EFL) among these MALL users. The results of this study suggest that EFL-speaking students' readiness affects mobile-assisted language learning. Teachers should consider students' motivation, attitudes, and technology skills when creating mobile-assisted language learning programs. Instructors should also train and motivate pupils to use mobile-assisted language learning resources by improving their technology skills. Furthermore, need for further technical support and facilitating students' mastery of speaking performance.

Keywords: EFL speaking, MALL, mobile learning, readiness

Introduction

Even though many studies have focused on the student's readiness to use MALL-mediated EFL speaking skills in various settings and academic levels, in recent years, Language learning has been investigated by researchers using various mobile devices such as mobile phones (Wong, Chin, Tan, & Liu, 2010). To evaluate students' readiness for Mobile Assisted Language Learning (MALL) in an EFL speaking class Mobile Assisted Language Learning (MALL) is recognized as a potentially significant way of language acquisition (Cheon, Lee, Crooks, & Song, 2012). Interest in mobile-assisted language learning (MALL) has increased in academic and scientific communities due to technology development and the need to facilitate learning (Lan, 2022). Mobile devices have gradually

evolved into language teaching and learning tools (Grant, 2019; Lan, 2022). Considering the significance of mobile-learning adoption, more research must be undertaken on influencing higher education students' acceptance of m-learning. (Cheon et al., 2012). Traditional and mobile learning are two very different approaches to education. Mobile learning can be done anywhere and at any time, while traditional learning is often constrained by hours of formal schooling. Traditional learning is classified as non-private, whereas mobile learning is classified as private (Kheider et al., 2015). In addition, mobile technologies are rapidly expanding the scope of non-formal education (i.e., informal education) by offering flexible and on-demand access to rich digital materials.

In recent years, with the application of MALL which is administered by nearly all Indonesian schools and universities, the implementation of mobile learning discussion is no longer limited to extension or supplementary activities for instruction but has become the main instructional strategy in EFL learning. Most of these researchers found that students may be more creative when learning a language if they use mobile devices that are portable and can connect to the internet. For instance, it has been demonstrated that Mobile Assisted Language Learning (MALL) and anxiety are related. In other words, using mobile devices to study a language can reduce language learners' anxiety and encourage them to communicate in public. Shamsi et al., (2019) and Gilanlioglu, (2019) in an English oral-training course Hsieh, Huang, and Wu (2017) MALL has provided new approaches to the language learning process (McCarty, Stao, & Obari, 2017), writing (Andújar-Vaca & Cruz-Martínez, 2017; Andujar, 2016) and listening and speaking (Ahn & Lee, 2016). The learning platform chosen for digital learning also contributes to the effectiveness of instruction discussion and how the learning process will be carried out. While the digital education discourse has been promoted as a driver for revolution and reform, it has caused several obstacles (Selwyn & Facer, 2013; Selwyn, 2010; Thomas, 2017).

Many studies have been conducted to investigate the idea of incorporating MALL to support teaching and learning activities in EFL speaking classes. The MALL integration has benefited speaking class by providing tools for lecturers and students to give, receive, and respond to feedback to improve their communication skills. Few studies have examined the impact MALL has on learning how to speak or write in a foreign language (Kim & Kwon, 2012). Other researchers (Chinnery, 2006; Kukulska-Hulme, 2009) have examined and explored MALL, but only incidentally as part of more extensive studies examining Computer-Assisted Language Learning, although MALL varies from other computer-based learning in some respects. Holbah, (2022) states the prevalent learning ideas Utilizing technology-mediated sources such as C/MALL contributes to FLA, and the findings assist researchers in determining the efficacy of these devices and methods in enhancing language competence among learners.

MALL can alter how languages are taught and learned. This research aims to determine whether students are ready to use MALL in an EFL speaking class. Recent advances in Computer Assisted Language Learning (CALL) and Mobile Assisted Language Learning (MALL) have made significant strides in second language acquisition (Meghdari et al., 2021). Technology does not influence educational practice, nor is it likely to be a deciding factor in casual learning. This study adapted (Hubbard, 1988, 2006, 2011) Integrated Framework for CALL

Courseware Assessment will provide a framework for analyzing mobile-based ESL software's design and evaluation criteria.

In this study, I will investigate how MALL, as a technology-based learning tool, provides an innovative teaching and learning process in an EFL Speaking Performance class. It will examine how students use its feedback features and whether they are prepared to use the facilitation strategies provided in practice performances.

Literature Review

Mobile Assisted Language Learning (MALL)

MALL As mobile technologies have advanced, so have advanced language education applications (Yang, 2013). Netbooks, laptops, iPads, tablets, cell phones, smartphones, digital cameras, MP3 and MP4 players, personal digital assistants (PDAs), and e-readers have gained widespread popularity, especially among young people (Teresa, 2011). MALL is a way of teaching and learning that incorporates mobile phones or other handheld devices with wireless connectivity, including mobile phones, PDAs, and tablets (Khubyari & Narafshan, 2016). Nevertheless, with the appropriate pedagogy, mobile learning can be just as effective as face-to-face learning, they contend, and they prefer to refer to m-Learning as the beginning of the end of classroom learning (Cherian & Williams, 2008). The available research indicates that m-learning is increasing worldwide (Dudeney & Hockly, 2012).

A study in the context of Indonesian higher education found that MALL facilitated ubiquitous learning. They found that carrying a cell phone encouraged pupils to study anywhere and at any time. Using their mobile device, they accessed instructional materials (Lee, Lee, & Kweon, 2013). Mobile phones have considerably improved the teaching and acquisition of abilities such as listening, reading, speaking, writing, grammar, and vocabulary. MALL studies within the context of English language acquisition helped pupils acquire foreign language components and abilities. The availability of mobile phones for language learners has greatly aided education.

Using MALL to improve EFL speaking

Implementing MALL in EFL learning environments has yielded significant research findings and positive results in recent decades, notably in vocabulary acquisition (Burston, 2013; Ko, 2019), Reading (Hendriwanto, H., & Kurniati, 2019; Lin, 2014) Writing (Chen, Carger, & Smith, 2017), and listening and speaking (Xu, Dong, & Jiang, 2017). In addition to the four skills of speaking, reading, listening, and writing, speaking is regarded as the most important and remains the most challenging skill for students of English to master (Jaelani, & Adung, 2022).

Prior study indicates that MALL helps second and foreign-language learners acquire language skills and linguistic knowledge. (Rajendran & Md Yunus, 2021). Nonetheless, several studies investigated EFL learners' acceptance of MALL for language learning (Hsieh, Huang, & Wu, 2017), MALL has been well-received by students since using mobile devices for language study is viewed as both practical and straightforward. The studies also demonstrated that the acceptance of MALL by learners affects their attitude and feedback toward the future use of mobile

devices for educational purposes. Listening and speaking are essential language skills for EFL learners and the foundation of their communicative abilities. (Cohen, 2012). However, this is different in ELT contexts characterized by limited exposure to English. learners are typically provided with decontextualized learning resources and assignments, despite having few opportunities to listen to actual English or speak English in daily life. As a result, they rely primarily on traditional teaching methods, which may diminish their motivation to learn in some situations (Hwang, Shih, Ma, Shadiev, & Chen, 2016; Sato & Obari, 2017). MALL consists of some characteristics thought vital to promote meaningful learning activities (Zain & Bowles, 2021).

The implication of EFL for using MALL

The technology for mobile-assisted language learning is portable and readily accessible. The phone is the most common mobile device, followed by iPods, PDAs, tablet PCs, and MP3 players. Using MALL also helps students improve their communication and collaboration skills in EFL (Bozdoğan, 2015). The utilization of MALL applications permitted the development of interactive digital learning experiences. Significant access to information and communication tools is required to create an immersive environment. (Liu, Scordino, Geurtz, Navarrete, Ko, & Lim, 2014). Students assumed that MALL use for EFL study could occur anywhere and at any time (Pratiwi, Nariyati, & Sudirman, 2020).

Teaching English speaking using mobile learning in EFL classes

English speaking is used in a speech community and prepares them for the real world when they leave the classroom. Utilizing mobile phone applications in the English teaching and learning process, particularly in teaching speaking, prompted students to demonstrate their communication skills (Machmud & Abdullah, 2018). The performance of students taught using a mobile phone application was superior to those taught using conventional methods. It has been demonstrated that video positively affects pupils' English-speaking scores. During the first semester of the speaking performance class, students were trained to speak using mobile phones. Every class segment, under the instructor's guidance and supervision, focuses on speaking practice. Using mobile phones in this class helps pupils talk more effectively, and the instructor can easily watch them. Students can use mobile devices to compose, examine their vocabulary, and modify their work.

Method

Participant

The study included 44 EFL students from non-English Education Departments in a speaking performance class. In the first semester, males and females between the ages of 17 to 20 participated. The participants were those prepared to speak using MALL, such as smartphones, iPads, and mobile phones. Purposive sampling was conducted using the names of students enrolled in the first semester. In the first semester, there were approximately 135 students, and the researcher selected 44 of them based on their readiness in speaking performance using MALL and feedback.

Table 1. Information of participants

Name Pseudonym	Gender	Age	Total	Name Pseudonym	Gender	Age	Total
AR	Female	18		AK	Male	18	
BR	Female	18		BK	Male	17	
CR	Female	18		CK	Male	17	
DR	Female	18		DK	Male	17	
ER	Female	18		EK	Male	18	
FR	Female	20		FK	Male	17	
GR	Female	20		GK	Male	20	
HR	Female	17		HK	Male	19	
IR	Female	18		IK	Male	19	
JR	Female	18	22	JK	male	17	22
KR	Female	18		LK	Male	18	
LR	Female	20		MK	Male	17	
MR	Female	20		NK	Male	19	
NR	Female	20		OK	Male	20	
OR	Female	19		PK	Male	17	
PR	Female	18		QK	Male	18	
QR	Female	18		RK	Male	18	
RR	Female	19		SK	Male	18	
SR	Female	18		TK	Male	20	
TR	Female	18		UK	Male	18	
UR	Female	18		VK	Male	17	
VR	Female	17		WK	Male	20	
WR	Female	18		XK	Male	19	

Data collection

The roles of MALL in English language teaching (ELT) investigate the participants' readiness and need regarding the use of MALL in speaking performance, then move on to appropriateness and preferences of MALL by academic levels and teaching roles, as well as teaching and learning tasks and language skills. The Likert Scale was then used to analyze this study. Research participants were asked to score their opinions on a five-point scale questionnaire. Utilizing a range of factual scores, the result was transformed into a range of mean values on a scale from 1 to 5.

Data analysis

Furthermore, online questionnaires are used to collect data using Google Forms. These are participant information and frequency of daily mobile device use, The study collected data on three aspects: students' readiness for mobile learning, their usage of mobile devices in the classroom, and their perceptions of using mobile devices for learning purposes. Both qualitative and quantitative data were gathered. The quantitative data obtained through the questionnaire were analyzed using descriptive statistics in SPSS software. The qualitative data from open-ended questions were counted and sorted based on how frequently they were mentioned.

Findings and Discussion

This study investigated students' readiness to use mobile phones as well as the implementation of a speaking performance feedback activity. This study followed 46 first-semester students who practiced using MALL. This study's findings provide an overview of the use of mobile phones in classroom activities and students' readiness to use MALL, including learning outcomes and the role of peer feedback in teaching English speaking performance. Their students' perceived usefulness of mobile learning influences their speaking performance positively. As a result, only a few studies investigate students' readiness for mobile phones and learning outcomes, this study seeks to learn more about the impact of learning outcomes provided on students' speaking performance when using mobile-assisted language learning. The student's readiness to use mobile phones for discussion facilitation was determined using calculation and descriptive analysis. Their recommendations were considered and then distributed to the participants. The interview section discusses the reliability of the questionnaire.

Table 2. Analysis of the questionnaire's reliability

No.	Questionnaire Part	Statistical Test Used	Reliability
1	Students' readiness using Mobile-assisted language Learning technology	Cronbach Alpha	0,831
2	Students' outcomes using Mobile phone in speaking performance	Cronbach Alpha	0,759
3	Learners' perceptions about Mobile-assisted in Speaking performance	Cronbach Alpha	0,774

Students' readiness using mobile-assisted language learning

To evaluate the students' preparedness for using mobile applications, specifically smartphones and mobile phones, to improve their vocabulary and speaking skills, a descriptive statistical analysis was conducted using frequency, mean, and standard deviation measures. The responses collected from the participants were analyzed using the SPSS 24.0 software. The questionnaire was coded using a specific procedure, where a score of 5 indicated "strongly agree," 4 indicated "agree," 3 indicated "neutral," 2 indicated "disagree," and 1 indicated "strongly disagree."

Table 3. Students' respondents on mobile learning readiness

No	Items	N	Mean	Mode	SD
1	I am interested in enhancing my English skills through mobile learning.	42	1.98	2	0.749
2	Motivated to study a foreign language, I use mobile-assisted learning.	42	1.22	2	0.593
3	Mobile-assisted learning is customizable, allowing me to learn wherever and whenever I want.	42	1.64	2	0.485
4	Mobile-assisted learning in EFL speaking performance can help me improve my knowledge and	42	2.07	2	0.677

	language-speaking skills.				
5	The use of MALL can help me develop skills (for example, speaking, reading, writing, listening, and vocabulary).	42	2.21	2	0.813
6	Mobile learning allows me to be more active in English learning.	42	2.31	2	0.680
7	Mobile learning can help in the creation of an authentic language-learning experience.	42	2.29	2	0.708

Table 2 results of learners' readiness to use a mobile phone application to learn to speak. Most students agreed that mobile-assisted language learning through speaking activities was an enjoyable way to learn, and mobile phones were convenient tools for academic engagement. This high level of agreement suggests that the students were positively inclined towards using mobile devices to assist in their language learning, indicating a favorable level of readiness.

Students' outcomes on using mobile-phones

Students in their outcomes provide the second aspect of discussion facilitation strategies.

Table 4. Students' outcomes using Mobile phone in speaking performance

No	Items	N	Mean	Mode	SD
1	Mobile phone tools for developing speech skills are very effective.	42	2.17	2	0.660
2	I feel the positive impact of every lecturer using a tool in the form of a smartphone or mobile phone when teaching English.	42	2.19	2	0.671
3	Students can be motivated to learn English with the help of mobile phones.	42	2.05	2	0.623
4	With mobile phones, students are highly confident in verbal and written communication.	42	2.21	2	0.682
5	The time given to do the speaking task is very effective.	42	2.50	2	0.804

Table 3 shows the outcomes of learners who used a mobile phone application to learn to speak. The students' perspectives on the outcomes of their Mobile speaking performances indicated this. Question 1 students' responses are very effective in helping them develop speech skills (m=2.17). Other students respond that every lecturer using a tool in the form of a smartphone or mobile phone when teaching English has a positive impact on them (m=2.19). The other responds that mobile phones can motivate their students to learn English. (m=2.05). Question 4 Students are very comfortable communicating verbally and in writing using mobile phones (m=2.21). The time allotted to complete the speaking task is very effective in the final question (2.50).

The implication of mobile-learning students' outcomes

Students' needs and outcomes, as well as curriculum standards, should be prioritized when implementing a mobile learning system. School authorities in Indonesia, particularly in higher education institutions, even though m-learning is widely accepted as an effective educational tool and is being used in some schools, many Indonesian tertiary and higher education institutions still need to incorporate it into their curriculum. As a result, the full potential of m-learning has yet to be realized in these institutions. Critical to the success of mobile learning is the impact of mobile technologies on both instructors and students. (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012). After they finished practicing, the lecturer instructed them to locate a peer and provide feedback in terms of evaluation for the lack of their friends' speaking and suggestions.

The mobile learning system class activity

The subsystems for mobile phone broadcasting and classroom management are presented in Figure 1 for this mobile learning system. Some service providers connect classrooms to Wi-Fi institutions, a service for high-educational networking, or cable networks.

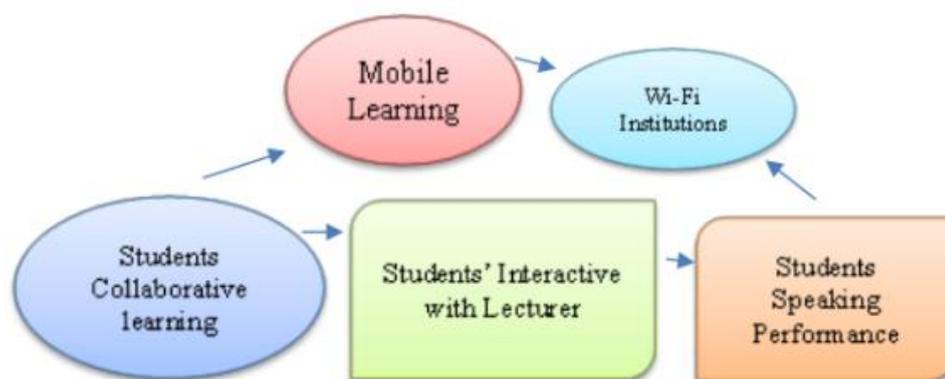


Figure 1. Students' classroom activities

Mobile learning

Mobile learning, also known as m-learning, can significantly impact learners' performance in English language learning. Mobile learning, or m-learning, can substantially affect English language learners' performance (Talan, 2020). Mobile learning has been found to have a significant impact on learning performance. Mobile-assisted language learning (MALL) tools have emerged as an effective method for improving students' listening abilities (Linh & Vu, 2021). According to studies, mobile learning is an effective method for promoting autonomous and personalized learning. However, it requires students to be responsible and motivated to improve their academic performance (Klimova, 2021). Moreover, students' self-regulated learning (SRL) skills can significantly impact their language learning performance in mobile learning contexts. A study found that EFL students who utilized mobile learning aids had enhanced SRL skills, which positively affected their academic performance (Seifert & Har-Paz, 2020). Finally, mobile learning can impact positively the academic performance of EFL students, particularly in the development of their listening skills, promotion of autonomous and personalized learning, and improvement of their SRL skills.

Wi-Fi institutions

Especially when incorporated with Wi-Fi institutions, mobile learning has demonstrated promise for enhancing English language learning performance. Moreover, mobile-assisted language learning (MALL) tools, particularly for listening skills, have grown in popularity in the digital era as they enable blended interaction and personalized learning experiences (Li, 2022). Therefore, integrating mobile learning with Wi-Fi institutions can provide students convenient access to learning materials and tools, personalized learning experiences, and opportunities for blended interaction, significantly improving their English language learning performance.

Collaborative learning

Collaborative learning was a method of instruction in which students worked together to attain a shared learning objective. Conversely, mobile learning refers to delivering educational content such as mobile devices such as smartphones and tablets. Due to the convergence of these two approaches, mobile collaborative learning (MCL) has emerged, in which students can collaborate with their peers using mobile devices. It has been demonstrated that the educational use of mobile devices increases students' interest and motivation in courses, resulting in positive attitudes (Bağcı & Pekşen, 2018).

Students interact with the lecturer

Mobile learning is a contemporary instruction technique that utilizes mobile devices to access educational content and engage in learning activities. Several studies have investigated the effect of mobile learning on academic achievement, motivation, and instructor-student interaction. Sung, Chang, and Liu, (2016) suggest it is hypothesized that the design of learning scenarios and mechanisms for eliciting questioning and explanation strategies can improve students' cognitive elaboration during mobile device-based activities. Similarly, a study by Demir and Akpınar (2018) found that students had positive attitudes toward mobile learning and valued it as a technique that could significantly boost their motivation.

Student speaking

Numerous researchers have examined the effect of mobile learning on students' oral communication skills. According to Kusmaryani, Musthafa, & Purnawarman (2019), mobile applications positively affect the verbal abilities of English language learners. Many students preferred to practice speaking through the content of English films on mobile applications, according to the study. Mobile learning has the potential to substantially influence students' speaking ability, cognitive elaboration, and learning motivation. Researchers and practitioners should consider incorporating mobile learning into language-learning curricula to improve students' speaking performance and overall learning experience.

A comparison of research studies on student readiness for using mobile-assisted EFL speaking performance reveals that students who utilized mobile learning aids had enhanced self-regulated learning (SRL) skills, which positively affected their academic performance (Seifert & Har-Paz, 2020).

Moreover, mobile applications have been found to positively affect the verbal abilities of English language learners (Kusmaryani, Musthafa, & Purnawarman, 2019). However, it is essential to note that mobile learning requires students to be responsible and motivated to improve their academic performance (Klimova, 2021). Studies have also shown that designing learning scenarios and mechanisms for eliciting questioning and explanation strategies can improve students' cognitive elaboration during mobile device-based activities (Sung, Chang, & Liu, 2016). Therefore, incorporating mobile learning into language-learning curricula can provide opportunities for students to improve their speaking performance, SRL skills, and cognitive elaboration.

Conclusion

In this study, we observed students' readiness and outcomes of the use of mobile phones in the speaking class done by Indonesian EFL learners in the first semester. This study examined MALL, a prospective educational technology for mobile learning in educational settings. This study is essential for implementing MALL to facilitate English language learning in the context of Islamic higher education in Indonesia (ELL). Because mobile devices are prevalent in Indonesia, mobile learning is an appropriate and effective option. Gadgets among Indonesian students.

As a result, we examine their students' responses to feedback via mobile learning. In general, this study demonstrates that pupils positively influence the outcomes of their work, which benefits them in developing their speaking skills and making recommendations when they encounter difficulties. Mobile learning allows students to practice English effectively and collaboratively by encouraging vocabulary, and pronunciation, and checking grammatical errors. M-Learning encourages students to recheck and evaluate their vocabulary outcomes to achieve English mastery. Even though MALL and its outcomes provide numerous benefits to students, students recommend implementing MALL in other subjects as well as speaking skills due to its effectiveness and ease of implementation. Should investigate the implications of using MALL for other researchers.

References

- Ahn, T. Y., & Lee, S. M. (2016). User experience of a mobile speaking application with automatic speech recognition for EFL learning. *British Journal of Educational Technology*, 47(4), 778–786. <https://doi.org/10.1111/bjet.12354>
- Andújar-Vaca, A., & Cruz-Martínez, M.-S. (2017). Mobile instant messaging: Whatsapp and its potential to develop oral skills. *Comunicar*, 25((50), 43–52. <https://doi.org/10.3916/C50-2017-04>
- Andujar, A. (2016). Benefits of mobile instant messaging to develop ESL writing. *System*, 62, 63–76. <https://doi.org/10.1016/j.system.2016.07.004>
- Bağcı, H., & Pekşen, M. F. (2018). Investigating the smartphone addictions of vocational school students from different variables. *Malaysian Online Journal of Educational Technology*, 6(4), 40–52. <https://doi.org/10.17220/mojet.2018.04.004>

- Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers and Education*, 58(2), 843–855. <https://doi.org/10.1016/j.compedu.2011.10.010>
- Bozdoğan, D. (2015). MALL revisited: current trends and pedagogical implications. *Procedia - Social and Behavioral Sciences*, 195, 932–939. <https://doi.org/10.1016/j.sbspro.2015.06.373>
- Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994-2012. *Language, Learning and Technology*, 17(3), 157–225. <https://doi.org/10.125/66305>
- Chen, Y., Carger, C. L., & Smith, T. J. (2017). Mobile-assisted narrative writing practice for young English language learners from a fund of knowledge approach. *Language Learning and Technology*, 21(1), 28–41. <http://llt.msu.edu/issues/february2017/chencargersmith.pdf>
- Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers and Education*, 59(3), 1054–1064. <https://doi.org/10.1016/j.compedu.2012.04.015>
- Cherian, E. J., & Williams, P. (2008). Mobile learning : The beginning of the end of classroom learning. *Proceedings of the World Congress on Engineering and Computer Science 2008*, 508–514. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.148.5462&rep=rep1&type=pdf>
- Chinnery, G. M. (2006). Going to the MALL : Mobile assisted language learning. *Language Learning & Technology*, 10(1), 9–16. Retrieved from <http://www.llt.msu.edu/vol10num1/pdf/emerging.pdf>
- Cohen, A. D. (2012). Comprehensible pragmatics: Where input and output come together. *Second Language Learning and Teaching*, 4(December 2012), 249–261. https://doi.org/10.1007/978-3-642-20850-8_16
- Demir, K., & Akpınar, E. (2018). The effect of mobile learning applications on students' academic achievement and attitudes toward mobile learning. *Online Journal of Educational Technology*, 6(2), 48–59.
- Dudeny, G., & Hockly, N. (2012). ICT in ELT: How did we get here and where are we going? *ELT Journal*, 66(4), 533–542. <https://doi.org/10.1093/elt/ccs050>
- Grant, M. M. (2019). Difficulties in defining mobile learning: Analysis, design characteristics, and implications. *Educational Technology Research and Development*, 67(2), 361–388. <https://doi.org/10.1007/s11423-018-09641-4>
- Khubyari, L., & Narafshan, M. H. (2016). A study on the impact of MALL (Mobile assisted language learning) on EFL learners' reading comprehension. *International Journal of English Language Teaching*, 4(2), 58-69.
- Hendriwanto, H., & Kurniati, U. (2019). . Building reading fluency with mobile-assisted extensive reading. *International Journal of Interactive Mobile Technologies*, 13(6), 84–92. <https://doi.org/10.3991/ijim.v13i6.11696>

- Holbah, W. A. (2022). Teachers' perspectives on foreign language acquisition and mobile or computer assisted language learning: A qualitative study. *Journal of Language Teaching and Research*, 13(3), 620–626. <https://doi.org/10.17507/jltr.1303.18>
- Hsieh, J. S. C., Huang, Y. M., & Wu, W. C. V. (2017). Technological acceptance of LINE in flipped EFL oral training. *Computers in Human Behavior*, 1(70), 178-190. <https://doi.org/10.1016/j.chb.2016.12.071>
- Hubbard, P. (1988). An integrated framework for CALL courseware evaluation. *CALICO Journal*, 6(2), 51-72. <https://doi.org/10.1558/cj.v6i2.51>
- Hubbard, P. (2006). Evaluating CALL software. In L. Ducate & N. Arnolds (Eds.), *Calling on call: From theory and research to new directions in foreign language teaching*. San Marcos, TX: CALICO. Retrieved from <https://journals.sfu.ca/CALICO/index.php/calico>
- Hubbard, P. (2011). Evaluation of courseware and websites. In L. Ducate & N. Arnold (Eds.), *Present and future perspectives of CALL: From theory and research to new directions in foreign language teaching* (S. Edition., ed.). San Marcos, TX: CALICO. Retrieved from <https://journals.sfu.ca/CALICO/index.php/calico>
- Hwang, W. Y., Shih, T. K., Ma, Z. H., Shadiev, R., & Chen, S. Y. (2016). Evaluating listening and speaking skills in a mobile game-based learning environment with situational contexts. *Computer Assisted Language Learning*, 29(4), 639–657. <https://doi.org/10.1080/09588221.2015.1016438>
- Jaelani, A., & Adung, N. (2022). The use of mobile-assisted language learning to promote learner autonomy in the EFL speaking context. *JEE (Journal of English Education)*, 8(1), 68-84.
- Kheider, M., Bashar, A., El, M., Ghrieb, B., Rabehi, M. S., Amina, M., & Mebarki, Z. (2015). *People's Democratic Republic of Algeria Ministry of higher education and scientific research teachers' and students' attitudes towards the use of mobile-assisted language learning*.
- Kim, H., & 권연희. (2012). Exploring smartphone applications for effective mobile-assisted language learning. *Multimedia-Assisted Language Learning*, 15(1), 31–57. <https://doi.org/10.15702/mall.2012.15.1.31>
- Klimova, B. (2021). Evaluating impact of mobile applications on EFL university learners' vocabulary learning - A review study. *Procedia Computer Science*, 184, 859–864. <https://doi.org/10.1016/j.procs.2021.03.108>
- Ko, M. H. (2019). Students' reactions to using smartphones and social media for vocabulary feedback. *Computer Assisted Language Learning*, 32(8), 920–944. <https://doi.org/10.1080/09588221.2018.1541360>
- Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157–165. <https://doi.org/10.1017/S0958344009000202>
- Kusmaryani, W., Musthafa, B., & Purnawarman, P. (2019). The influence of mobile applications on students' speaking skills and critical thinking in English language learning. *Journal of Physics: Conference Series*, 1193(1), 1–7. <https://doi.org/10.1088/1742-6596/1193/1/012008>

- Lan, E. M. (2022). A comparative study of computer and mobile-assisted pronunciation training: The case of university students in Taiwan. *Education and Information Technologies*, 27(2), 1559–1583. <https://doi.org/10.1007/s10639-021-10647-4>
- Lee, H., Lee, W.B., & Kweon, S. (2013). Conjoint analysis for mobile devices for ubiquitous learning in higher education: The Korean case. *TOJET*, (12)(1), 60-68.
- Li, H. (2022). Mobile-assisted language learning in Chinese higher education context: a systematic review from the perspective of the situated learning theory. *Education and Information Technologies*, 27(7), 9665–9688. <https://doi.org/10.1007/s10639-022-11025-4>
- Lin, C.-C. (2014). Learning English reading in a mobile-assisted extensive reading program. *Computers & Education*, 78, 48–59. <https://doi.org/10.1016/j.compedu.2014.05.016>
- Linh, V. T., & Vu, N. N. (2021). The impact of mobile learning on EFL students' learning behaviors and perceptions: From content delivery to blended interaction. *International Research in Higher Education*, 5(4), 25. <https://doi.org/10.5430/irhe.v5n4p25>
- Liu, M., Scordino, R., Geurtz, R., Navarrete, C., Ko, Y., & Lim, M. (n.d.). A look at research on mobile learning in K–12 education from 2007 to the present. *Journal of Research on Technology in Education*, 46(4), 325-372. <https://doi.org/10.1080/15391523.2014.925702>
- Machmud, K., & Abdulah, R. (2018). Using mobile phone to overcome students' anxiety in speaking English. *SHS Web of Conferences*, 42, 1-6. <https://doi.org/10.1051/shsconf/20184200004>
- McCarty, S., Stao, T., & Obari, H. (2017). *Implementing mobile language learning technologies in Japan*. Singapore: Springer. <https://doi.org/10.1007/978-981-10-2411-1>
- Meghdari, A., Alemi, M., Ghaazisaidi, M., Taheri, A. R., Karimian, A., & Vakili, M. Z. (2021). Applying robots as teaching assistant in EFL classes at Iranian middle-schools. *International Journal of Systems Applications, Engineering & Development*, 15, 165–171. <https://doi.org/10.46300/91015.2021.15.24>
- Pratiwi, N. P. A., Nariyati, N. P. L., & Sudirman, S. (2020). EFL pre-service teachers' perception toward the use of mobile assisted language learning in teaching English. *International Journal of Language Education*, 4(1), 38–47. <https://doi.org/10.26858/ijole.v4i2.10052>
- Rajendran, T., & Md Yunus, M. (2021). A systematic literature review on the use of mobile-assisted language learning (MALL) for enhancing speaking skills among ESL and EFL learners. *International Journal of Academic Research in Progressive Education and Development*, 10(1), 586–609. <https://doi.org/10.6007/ijarped/v10-i1/8939>
- Seifert, T., & Har-Paz, C. (2020). The effects of mobile learning in an EFL class on self-regulated learning and school achievement. *International Journal of Mobile and Blended Learning*, 12(3), 49–65. <https://doi.org/10.4018/IJMBL.2020070104>

- Selwyn, N., & Facer, K. (2013). *The politics of education and technology: Conflicts, controversies, and connections*. New York: Palgrave Macmillan.
- Selwyn, N. (2010). *Schools and schooling in the digital age*. London: Routledge. <https://doi.org/10.4324/9780203840795>
- Shamsi, A. F., Altaha, S., & Gilanlioglu, I. (2019). The role of M-learning in decreasing speaking anxiety for EFL Learners. *International Journal of Linguistics , Literature and Translation (IJLLT)*, 2(1). <https://doi.org/10.32996/ijllt.2019.2.1.34>
- Sung, Y., Chang, K., & Liu, T. (2016). The effects of integrating mobile devices with teaching and learning on students ' learning performance : A meta-analysis and research synthesis. *Computers & Education*, 94, 252–275. <https://doi.org/10.1016/j.compedu.2015.11.008>
- Talan, T. (2020). The effect of mobile learning on learning performance: A meta-analysis study. *Educational Sciences: Theory and Practice*, 20(1), 79–103. <https://doi.org/10.12738/jestp.2020.1.006>
- Teresa, F. (2011). Mobile learning: At the tipping point. *Turkish Online Journal of Educational Technology*, 10(4), 261–275. Retrieved from <https://files.eric.ed.gov/fulltext/EJ946635.pdf>
- Thomas, M. (2017). *Project-based language learning with technology: Learner collaboration in an EFL classroom in Japan*. New York: Routledge. <https://doi.org/10.4324/9781315225418>
- Wong, L. H., Chin, C. K., Tan, C. L., & Liu, M. (2010). Students' personal and social meaning making in a Chinese idiom mobile learning environment. *Journal of Educational Technology & Society*, 13((4), 15-26. <https://doi.org/10.1109/ICALT.2012.30>
- Xu, Q., Dong, X., & Jiang, L. . (2017). EFL learners' perceptions of mobile-assisted feedback on oral production. *TESOL Quarterly*, 51(2), 408–417. <https://doi.org/10.1002/tesq.311>
- Yang, J. (2013). Mobile assisted language learning: Review of the recent applications of emerging mobile technologies. *English Language Teaching*, 6(7), 19–25. <https://doi.org/10.5539/elt.v6n7p19>
- Zain, D. S. M., & Bowles, F. A. (2021). Mobile-assisted language learning (MALL) for higher education instructional practices in EFL/ESL contexts: A recent review of literature. *Call-Ej*, 22(1), 282–307.