

Mobile-Assisted Language Learning (MALL): Students' perceptions and experiences on the use of mobile applications for language learning

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Abstract

An increasing number of studies highlight the benefits of integrating Mobile-assisted language learning (MALL) into the classroom. This paper aims to report on the results of an investigation - whether applying a mobile application (app) enhances language learning in an EFL classroom at a private bilingual university in Tokyo. As part of the class assignment, students were required to complete a weekly journal based on their reflections on using a mobile application for language learning. The results indicated that using a mobile app showed no significant increase in hours of study time, but the feedback from the journal entries suggested that the learners' general perceptions (of MALL) were largely positive. They felt using an app was not only effective in enhancing their language learning but also created a more enjoyable learning environment with flexibility. The limitations of this paper are discussed for future research along with suggestions for teachers who may be interested in incorporating MALL in EFL classrooms.

The year 2020 presented unprecedented challenges to people worldwide due to the COVID-19 pandemic. The sudden yet substantial shift to remote work (from office work) and to online learning (from traditional in-person learning) has rapidly accelerated the already "high-demand" use of modern technologies – such as personal computers, mobile phones, and various internet-based technologies – to the next level and beyond. Today, it is common for university students to have a smartphone and to check their device frequently. According to MacKay (2019), smartphone users spend "3 hours and 15 minutes a day...most check their phones 58 times a day (with 30 of those during working hours)." Given the current situation, a growing number of teachers and educational institutions are eager to explore the potential of MALL in EFL classrooms (Biantoro, 2020). This paper examines the benefits of MALL and the use of mobile applications (apps) to learn English or other languages in a university setting. This study set out to investigate the following two research questions:

RQ1. Does using a mobile app offer more affordances for learners to increase their language learning time and opportunity?

RQ2. What are learners' general perceptions of using an app to learn English or other languages?

Literature Review

Definition of Mobile-assisted Language Learning

According to Stockwell (2022), "MALL refers to learning a second language or foreign language through the use of one or more of various mobile devices include, but not restricted to, mobile phones (including smartphones), tablets, personal digital assistant (PDAs), MP3/MP4 players, Electronic dictionaries, and gaming consoles." (p. 8). Today, MALL can be done in myriad ways, from "self-study apps for learning academic vocabulary" (Xodabande & Atai, 2020), watching apps such as YouTube to improve speaking and critical thinking skills in English (Kusmaryani, Musthafa & Purnawarman, 2019), to listening to podcasts as a motivation strategy to improve listening comprehension (Shiri, 2015); and more. Many of these studies offer *affordances* to language learners. Affordances are essentially "learning opportunities." Based on their video analysis of the sociomaterial interactions among developers, users, and artifacts, Van Osch and Mendelson (2011) came up with three types of affordances: designed affordances, improvised affordances, and emergent affordances. Meticulously pre-designed language learning apps by the developers such as Duolingo and Quizlet have "designed affordances". On the contrary, a social media platform, YouTube offers "improvised affordances" in which viewers (learners) themselves find affordances to learn or practice their target language by watching those online shared videos. A good example of this is when learners watch YouTube videos to listen and learn the different English accents. "Emergent affordances" refers to language opportunities that pop up and get expanded as a result of particular affordances. If a teacher decides to have a lesson teaching various types of regional English accents as a result of seeing many learners interested in learning various English accents on YouTube, this would be referred to as affordances that simply emerged from a situation. "Emergent affordances" can be further analyzed based on eight factors: practicality, affordability, information reliability, instruction integrity, hedonic experience, user-friendliness, interactive input, and iterative upgrading (Gholizadeh et al., 2021).

Benefits of MALL

Numerous studies advocate the advantages of MALL, particularly in vocabulary and listening skills (Nah, White & Sussex, 2008; Pham, 2022; Stockwell, 2022; Xodabande & Atai, 2020). Another significant benefit of using MALL is creating various types of affordances for learners (Brown & Lee, 2015; Gholizadeh, Akhlaghpour, Isaias & Namvar, 2021; Kukulska-Hulme & Viberg, 2018; Van Osch and Mendelson, 2011). In addition, MALL has a great capacity to provide language learners with more flexibility (Loewen et al., 2019) as well as more interactions among language learners (Brown & Lee, 2015; Kukulska-Hulme and Shield, 2008). Furthermore, MALL promotes "Self-directed learning" (Lai & Zheng, 2018; Sam & Shalini, 2021; Xodabande & Atai, 2020). Positive results by Jeong (2022), state that incorporating language learning on mobile apps into learning in the classroom elevates students' motivation and promotes a more sustainable language learning experience. Moreover, the rapid growth in the popularity of technological devices enables teachers to explore and consider

incorporating Learning Beyond the Classroom (LBC) to provide more extensive practice for learners outside the classroom (Reinders, 2020; Xodabande, 2018). Therefore, MALL is a great supplement to classroom learning. Munday (2016) highlights factors such as its gamification aspects, easy access, and a rich selection of available tasks on the apps, which all assist students in having a higher level of enjoyment in language learning.

Methodology

Content

Research Writing (RW) is a 3-credit academic writing course that consists of two major parts: an area of inquiry on a specific topic and writing an academic research paper at lengths of 1500 to 2000 words. The topic of this course was MALL: using a mobile app to increase affordances for effective language learning. As part of the course, students were asked to use an app to learn a new language or to improve their English language skills for at least ten minutes every day during the term (10 weeks). The purpose of using an app to learn English or other languages throughout the term was to promote a more robust understanding of MALL among the students. In this way, students would have first-hand experience using a mobile device to enhance their language learning. Even though their experience of using a mobile device was not expected to be part of their research paper (writing), their experiences using the app and their reflections were sought to assist them in critically comparing and contrasting both advantages and disadvantages of MALL. Such an exercise of identifying the pros and cons of MALL for language learning was then thought to assist students to start developing their own research proposal questions in the early part of the course. Lastly, this ten-week exercise using an app was incorporated into RW in the hope that it would promote a lifelong language learning habit for students.

Participants

The participants included one senior and thirteen junior undergraduate students who enrolled in a Research Writing (RW) course in the winter term of 2021 at International Christian University (ICU), a bilingual liberal arts university in Tokyo. This course was taught in a “mixed mode”, an instruction style that allows teachers to switch between online and face-to-face due to COVID-19. All lessons were taught via Zoom regardless of the mode during the term.

Materials and Procedures

At the beginning of the RW course, students were introduced to the most recent language learning apps available to them online. An important note is that many language-learning apps are free, especially for beginner levels. While there were apps specifically designed for language learning, such as Duolingo and Mikan, some apps were created for the purpose of social entertainment, such as YouTube and Netflix. For this study, students could choose any app of their preference as long as they could use it for their language learning with a free subscription. If they already had a subscription to streaming services such as Netflix prior to the course, they were permitted to use them. For this study, nine different apps were selected by the fourteen students: YouTube (2), Wikipedia (1), Mikan (2), Duolingo (2), TED (1), Eiken

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(1), Memrise (1), Netflix (2), and Quizlet (2). Next, students were instructed to give a three-minute presentation on the selected app in class. They gave a presentation based on the following questions: a) Why did you choose this app?, b) What do you want to improve/learn by using this app?, and c) What goal would you set yourself to achieve by the end of this term?

From the first week of the course, students were asked to learn a language (English or other languages) and record their reflections on their language learning experience by using an app in journals. There were ten journals in total. Each journal was completed weekly on Friday via Google Forms in Google Classroom. These journals were in a questionnaire style, and students completed a list of questions (see Appendix 1) each time. Questions consisted of multiple-choice questions as well as short answer questions in which students could include their feedback in writing anonymously. This way, students had privacy and felt comfortable sharing their honest opinions about their learning experiences. All data in this study was collected from the students' journal entries.

Results

RQ1. Does using a mobile app offer more affordances for students to increase their language learning time? The results in Table 1 show the participant language study time (in minutes) each week on an app.

Table 1:

Participant language study time (in minutes) each week on an app.

Week	Study time			
	Less than 30 min	30 - 60 min	60 - 90 min	More than 90 min
Week 1	-	28.6%	50%	21.4%
Week 2	21.4%	7.1%	57.1%	14.3%
Week 3	15.4%	30.8%	53.8%	-
Week 4	14.3%	21.4%	57.1%	7.2%
Week 5	7.1%	28.6%	50%	14.3%
Week 6	7.1%	28.6%	64.3%	-
Week 7	-	50%	42.9%	7.1%
Week 8	-	28.6%	71.4%	-
Week 9	7.1%	42.9%	42.9%	7.1%
Week 10	7.2%	28.6%	57.1%	7.1%

Note. (-) 0%

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Every week, 50% or more of the participants spent 60 minutes or more on the app throughout the term. Besides Week 1, Week 7, and Week 8, 7.1% to 21.4% spent less than 30 minutes on the app. These results showed no significance since participants were asked to spend at least ten minutes on the app everyday. However, when participants were asked this question:

Q: Do you think using your app encouraged you to spend more time learning English/other languages in your free time?

Twelve participants answered “yes” along with comments. Some of the comments included:

Yes, definitely. I sometimes watch videos or movies in English, but they are not from the purpose to learn, but entertainment. However, this time, I was opening the app in my free time having the purpose to learn. What I got might be really different whether I was interacting with English consciously or unconsciously. (excerpt#1)

Yes, when I started watching videos for my journal, I keep watching them for hours because the contents was really interesting. (excerpt#2)

Yes, application for language learning is possible to do when I have a little time, so I was able to turn the time that I normally do nothing into study time with a little accumulation. (excerpt#3)

Yes, it encouraged me to spend more time since application is a easy way to study and it can be played anytime anywhere unless there is internet connection. So, it was easy to play in my free time. (excerpt#4)

I used Duolingo mostly in my free time and even my goal was to use them 10 minutes a day, sometimes when I feel free, I used it more than 10 minutes, so it did encouraged me to learn Spanish more. (excerpt#5)

This is in accordance with the author’s assertion that these comments suggested using an app encouraged most participants to spend more time learning English or other languages. One reason these comments were not reflected in Table 1 for study time could be that the tracking of time (while using an app) was not appropriately logged in. In fact, the majority of apps participants used for this study did not have a time-log feature. Thus, participants had to keep track of their study time manually, which caused discrepancies. The study time shown in Table 1 may not reflect the actual time the participants spent on an app.

RQ2. What are learners’ general perceptions of using an app to learn English or other languages?

In the final journal in Week 10, participants were asked this question to share their overall experiences using an app for language learning during the term:

Q: You have been using your app to improve English or to learn a new language for the last ten weeks. Do you think using your app helped you in any way?

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All fourteen participants answered positively. Some stated that they could improve particular language skills such as learning new vocabulary, listening skills, grammar, presentation skills, and getting familiar with different English accents:

Yes, I think my devices helped me in understanding meaning of sentences and getting new vocabulary and so on. (excerpt#6)

I think my app helped me to keep or improve my listening skill because I don't have opportunities to use English without RW classes in this semester. (excerpt#7)

Yes, it helped me to remember my existing knowledge and also learn new vocabularies. (excerpt#8)

I've been using app to improve my English skill. It helps me especially listening skill. (excerpt#9)

Yes, I enjoyed watching Netflix with dual subtitles and it helped me accustoming to several kinds of accents. (excerpt#10)

I have memorized more Spanish vocabulary. (excerpt#11)

Yes, I definitely think that application helped me a lot with my language skills. It helped me to understand the grammar and vocabulary in a fun way. It also helped me to keep touching with the language. (excerpt#12)

In the first half weeks, I watched presentations in English and it helped me with my listening skills...I was able to remember the basic vocabularies that I learned in the last semester. (excerpt#13)

While highlighting their improvements in language skills, comments in excerpt#7 and excerpt#12 also expressed that using an app provided them with more opportunities (affordances) to use English.

Comment excerpt#14 wrote that using an app was helpful for reading the sources to write a research paper in RW:

Yes, I used the app which improve my vocabulary skill, so this helped me when I read the sources that I use in my research paper. (excerpt#14)

This participant expressed in excerpt#15 that using an app was effective for not only learning a new language but also for dealing with learning anxiety:

Yes, using the app helped me learn a new language. Learning a new language is very challenging and comes with a lot of anxiety. But the app I'm using is designed for beginners like me. Thanks to this app, I was able to learn in a fun and game-like way. (excerpt#15)

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When participants were asked if they thought using an app increased their motivation, most answered positively. Many comments stressed the importance of the app's variety of features that assisted in increasing or maintaining their motivation:

Yes, the app I am using now is free, and it helps increase my motivation. (excerpt#16)

Yes, I always have my smartphone so it is easy to use apps. It keeps my motivation and induce to study. (excerpt#17)

The app I'm using enhances my motivation because it informs me of how many days in a row I've logged in. (excerpt#18)

Yes, because this app always cheer me up and send notification so that I don't forget studying. (excerpt#19)

Yes, since my aim to use MEMRISE is to know phrases that are used in daily conversation by local people, short clips of native speakers and conversation style questions stimulate my motivation. (excerpt#20)

Yes, I want to catch what characters say precisely whenever I watch English movie. (excerpt#21)

Yes, it helps increase my motivation because it has many levels and I feel satisfied when I finish each level and move on to the next. Moreover, each level has many different types of quiz such as grammar, listening, vocabulary, so I do not get bored with this app. (excerpt#22)

TED talks gives suggestions...I feel this leads to increasing learns motivation because for me, I am only watching one lecture a day, but for learners that spends more time, they can select the next video that relates to their interest. (excerpt#23)

Yes, I use YouTube and it has the movie I am interested in. So the contents of it increase my motivation. (excerpt#24)

Kim and Kim (2021) note that there are benefits such as enhancing cross-cultural sensitivity, building content knowledge, and skills in L2, and refining an understanding of the global language by using YouTube to learn English. In addition, YouTube enables language learners to share their experiences with people in different cultures and backgrounds to elevate language learning and learn about different cultures (Wang & Cheng, 2020). Similarly, Dizon (2021) points out that using video streaming services such as YouTube can assist learners to become more familiar with foreign cultures.

This current study investigated two research questions, including whether using a mobile app enhances language time and opportunities (RQ1); and language learners' perceptions of using a mobile app to learn English or other languages (RQ2). As for RQ1, study

time in Table 1 showed no clear correlation that using an app increased study time. However, the positive comments in journal entries suggested that using an app promoted more affordances. Thus, even though study time did not significantly increase, it is suggested that MALL, using an app for language learning, may be an effective way to elevate language learning. In terms of RQ2, most comments in journal entries were largely favorable. When participants were asked whether using an app was helpful in any way, all fourteen agreed unanimously, stating that it assisted them in improving particular language skills, created more opportunities to use English, helped with the coursework in RW, and allowed them to learn a new language without anxiety. Other comments on learners' motivation suggested that apps' rich features played a significant role in increasing or maintaining learners' motivation.

Conclusion and Recommendations

The current study investigated the effectiveness of using a mobile app for language learning throughout a ten-week term in the RW course. Using an app gave students more affordances to apply the language learners were interested in learning or improving. Additionally, their general perceptions of using a mobile app for learning English or other languages were largely positive, and they generally enjoyed using it. These fruitful findings revealed that implementing MALL such as using a mobile app for language learning is highly beneficial for learners. Thus, it is essential that teachers have an open mind to incorporate MALL into the classroom. One crucial aspect of MALL is that it is more appropriate to be implemented in the classroom as a supplemental tool. In other words, using a mobile app is more suitable outside the classroom as part of assignments or as an extension of class exercises. This way, students can focus on the class tasks and activities without being distracted by their smartphones.

This author found that implementing MALL was especially beneficial and enjoyable for teaching the RW course for a number of reasons. First, it elevated interactions among learners in class via Zoom. Some students expressed their anxiety about writing extensively in English at the beginning of the course. In addition to their fear of writing, many students felt isolated taking the course on Zoom due to the pandemic. Using a mobile app to learn a language helped many students to talk about their experiences and alleviated those psychological insecurities. Thus, students could start having a list of research ideas based on their conversations with their section mates. Second, assigning a weekly journal on their experiences using a mobile app provided opportunities for the author to understand learners' learning styles and needs. For instance, the author could learn the length of students' commutation, living situation, study habits, and their interests and goals in terms of language learning. Similarly, writing reflective journals while using apps can help learners be more aware of their weaknesses (Kessler, 2021). As this was the author's first time teaching the RW course, the information the journal entries provided was extremely helpful to teach those students effectively in the course. Finally, using a mobile app for language learning promoted a more friendly, enjoyable, and student-centered learning environment. These are only some of the advantages of integrating MALL that the author witnessed in the RW course. Thus, considering adding MALL into language learning is highly recommended to promote more engaging and effective language learning.

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Regarding the issue of monitoring learners' log-in time to measure their study time more accurately, using only language apps that have the log-in feature may be a better choice for better-quality recording. For future research, administering pre- and post-tests by using one type of mobile language app (such as Duolingo) would be an effective way to measure the learners' progress quantitatively. Technology is indispensable for the success of language learning. The effective use of mobile devices as learning tools can provide more affordances for learners, promote interactions, and lead to a more enjoyable learning environment. With judicious use of the latest technology, teachers can make the learning environment more engaging and beneficial for language learners.

References

- Biantoro, B. (2020). Exploring the Integrations of MALL into English Teaching and Learning for Indonesian EFL Students in Secondary Schools. *Celtic: A Journal of Culture, English Language Teaching, Literature and Linguistics*, 7(2), 102-117.
- Brown, H., & Lee, H. (2015). *Teaching by principles: An interactive approach to language pedagogy* (4th ed.). Pearson Education.
- Dizon, G. (2021). Subscription video streaming for informal foreign language learning: Japanese EFL students' practices and perceptions. *Tesol Journal*, 12(2), 1056-7941. Retrieved from <https://doi.org/10.1002/tesj.566>
- Gholizadeh, M., Akhlaghpour, S., Isaias, P., & Namvar, M. (2022). Emergent affordances and potential challenges of mobile learning apps: insights from online reviews. *Information Technology & People*, 35(7), 2500-2517.
- Jeong, K. O. (2022). Facilitating sustainable self-directed learning experience with the use of mobile-assisted language learning. *Sustainability*, 14(5), 2894.
- Kessler, M. (2021). Supplementing mobile-assisted language learning with reflective journal writing: A case study of Duolingo users' metacognitive awareness. *Computer Assisted Language Learning*, 1-2. Retrieved from <https://doi.org/10.1080/09588221.2021.1968914>
- Kim, S., & Kim, H. C. (2021). The Benefits of YouTube in Learning English as a Second Language: A Qualitative Investigation of Korean Freshman Students' Experiences and Perspectives in the US. *Sustainability*, 13(13), 7365.
- Kukulska-Hulme, A., & Shield, L. (2008). An Overview of Mobile Assisted Language Learning From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289. Retrieved from <https://doi.org/10.1017/S0958344008000335>
- Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology*, 49(2), 207-218.
- Kusmaryani, W., Musthafa, B., & Purnawarman, P. (2019, April). The influence of mobile applications on students' speaking skill and critical thinking in English language learning. In *Journal of Physics: Conference Series* (Vol. 1193, No. 1, p. 012008). IOP Publishing.
- Lai, C., & Zheng, D. (2018). Self-directed use of mobile devices for language learning beyond the classroom. *ReCALL*, 30(3), 299-318.
- Loewen, S., Crowther, D., Isbell, D. R., Kim, K. M., Maloney, J., Miller, Z. F., & Rawal, H. (2019). Mobile-assisted language learning: A Duolingo case study. *ReCALL*, 31(3), 293-311.
- MacKay, J. (2019, March 21). Screen time stats 2019: Here's how much you use your phone during the workday. *RescueTime blog*. Retrieved from <https://blog.rescuetime.com/screen-time-stats-2018/>
- Munday, P. (2016). The case for using DUOLINGO as part of the language classroom experience. *RIED: Revista Iberoamericana de Educación a Distancia*, 19(1), 83-101.
- Nah, K. C., White, P., & Sussex, R. (2008). The potential of using a mobile phone to access the Internet for learning EFL listening skills within a Korean context. *ReCALL*, 20(3), 331-347.

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- Pham, A. T. (2022). University Students' Perceptions on the Use of Quizlet in Learning Vocabulary. *International Journal of Emerging Technologies in Learning*, 17(7).
- Reinders, H. (2020). A framework for learning beyond the classroom. In *Autonomy in Language Education* (pp. 63-73). Routledge.
- Sam, D. P., & Shalini, R. (2021). Limitations and Advantages in Implementing MALL in the Tertiary ESL Classrooms: A Review. *International Journal of Recent Technology and Engineering*, 9(5), 27-32.
- Shiri, S. (2015). The application of podcasting as a motivational strategy to Iranian EFL learners of English: A view toward listening comprehension. *Advances in Language and Literary Studies*, 6(3), 155-165.
- Stockwell, G. (2022). *Mobile assisted language learning: Concepts, contexts and challenges*. Cambridge University Press.
- Van Osch, W., & Mendelson, O. (2011, December 4-7). A typology of affordances: Untangling sociomaterial interactions through video analysis [Conference session] 2011 International Conference on Information Systems, Shanghai, China. <https://aisel.aisnet.org/icis2011/proceedings/visualmedia/1>
- Wang, H. C., & Chen, C. W. Y. (2020). Learning English from YouTubers: English L2 learners' self-regulated language learning on YouTube. *Innovation in Language Learning and Teaching*, 14(4), 333-346.
- Xodabande, I., & Atai, M. R. (2020). Using mobile applications for self-directed learning of academic vocabulary among university students. *Open Learning: The Journal of Open, Distance and e-Learning*, 1-18.
- Xodabande, I. (2018). Iranian EFL Learners' Preferences of Different Digital Technologies for Language Learning beyond the Classroom. *International Journal of Education and Literacy Studies*, 6(2), 20-31.

Appendix 1

My Journal Questions

1. At what moment this week did you feel most engaged with your mobile app/device? Why? (for example --- I was most engaged/focused when I was reading/watching/using the listening feature because...)
2. How long did you use your app this week?
3. Where did you use your app/device the most?
4. What did you learn by using the app/device this week?
5. Does your mobile app/device/streaming services/free content online services help increase your motivation to learn the language you are interested in? Please answer with details.
6. Is your app/device/streaming services visually pleasing? Do you think the attractive visuals/sounds can increase your motivation for language learning? Why? Please, answer with details.
7. What was the most exciting/interesting learning experience with your app/device/streaming services/free content online services this week? Why?
8. What was the most difficult learning experience with your app/device/streaming services/free content online services this week? Why?
9. How can you assess how much you are learning by using your app/device/streaming services/free content online services? Does it offer any tests/quizzes/games? If yes, do you use them? If not, what can you do to test how much you are learning?
10. Keeping your motivation up is always challenging. Do you think receiving praise/reminders everyday can help you stay motivated to use your app/device/streaming services/free content online services? Why?
11. Are you interested in learning a new language? If yes, which language? Why?
12. Gamification is the process of adding games or game-like elements to something (i.e. education) to increase learners'/participants' engagement. Are you using an app/a service that offers gamification to learn your language? If yes, please explain how effective you think gamification is. If not, do you think gamification would increase your engagement? What do you think about gamification to learn languages?
13. Many studies claim that language learners spend more time practicing/using the language they are studying if they used a mobile app. Do you agree? Explain.
14. You have been using your app/device to improve your English language or to learn a new language for the last ten weeks. Do you think using your app/device helped you in any way?
15. Was using an app/a device enjoyable to improve your English/learn a new language? How?
16. Do you think using your app/device encourages you to spend more time learning English/other languages in your free time?