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MOBILE-ASSISTED LANGUAGE LEARNING IN KOREAN LANGUAGE CLASSES: INDONESIAN UNDERGRADUATE STUDENTS' EXPERIENCES AND PERCEPTIONS

Arif Husein Lubis[1*], Risa Triarisanti[2], Didin Samsudin[3], and Velayeti Nurfitriana Ansas[4]
[1,2,3,4]Universitas Pendidikan Indonesia, Indonesia
lubis_ah@upi.edu[1], risatriarisanti@upi.edu[2], didinsamsudin@upi.edu[3], and velaansas@upi.edu[4]
*correspondence: lubis_ah@upi.edu
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Abstract
The ubiquitous presence of mobile devices has benefited the implementation of foreign language learning through Mobile-Assisted Language Learning (MALL). Previous research highlights the portability aspect of mobile devices such as smartphones that can lead to spontaneous, flexible, and personalized learning activities. However, challenges remain; particularly the connectivity issues. The present study seeks to continue the discussion by investigating 79 Indonesian undergraduate students' experiences and perceptions of MALL in their Korean language classes. The data were obtained by distributing a questionnaire to the students. The validity and reliability coefficients were also measured. Interview sessions were conducted afterward with eleven students to dig for further explanations. The results demonstrate that most students used smartphones for sending messages to peers, checking notifications, accessing materials, submitting their work, and sending messages to lecturers. Regarding the applications used, they frequently utilized smartphones for accessing Google Classroom, Zoom, and WhatsApp during their Korean classes. The results also revealed that while they perceived MALL as useful and flexible for learning Korean toward increased language skills, motivation, autonomy, and critical thinking, technical problems, and connectivity issues remain to be the main challenges. This study discusses some concerns in implementing MALL and its implications for future research.

Keywords: experience, Indonesian undergraduate student, Korean language, mobile-assisted language learning, perception

Introduction
The ubiquitous presence and advancement of mobile devices and mobile technologies has developed the way foreign language teaching and learning process is conducted to augment the quality of independent and active learning (Kacetl & Klímová, 2019). The affordance of the use of mobile devices in the language learning process, commonly termed as m-learning is justified by previous research (Chinnery, 2006, Miangah & Nezarat, 2012). Prior to the

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current post-pandemic situation, any face-to-face interactions in higher education context are limited even prohibited due to the COVID-19 outbreak, which rendered the use of mobile devices become more essential and helpful than ever (Darsih & Asikin, 2020; Kamasak et al., 2020; Nuraeni, 2021). The educational forms nowadays have encouraged educators to integrate new media into language learning toward increased language acquisition and language skills and competencies (Hwang & Fu, 2018; Ruschoff, 2003; Upor, 2021). Particularly, the use of mobile devices has been considered beneficial for promoting either micro language skills such as vocabulary, pronunciation, and grammar or macro language skills such as reading comprehension (Luque-Agulló & Martos-Vallejo, 2015). Hence, investigating the students' perceptions of the implementation of mobile-assisted language learning can be worth-doing.

Mobile-assisted language learning (MALL) is a learning approach where the students use smartphones or other mobile technologies to support their learning process and cater for their learning needs (Kukulska-Hulme, 2020). MALL is different from computer-assisted language learning (CALL) where the former underscores the spontaneity of access to the learning materials and of interactions (Kukulska-Hulme & Shield, 2008, p. 273). Such technologies have specific advantages for the students from its portability and the possibility to conduct situated learning. Unlike desktop-based devices, smartphones and other mobile devices like tablets and PDAs are portable and handheld so that the students can learn anywhere and anytime. The main advantages from the implementation of MALL include immediate access to abundant learning resources, continuous social networks, and situation-relevant assistance based on personal needs, preferences, and goals across different settings.

Specific formal regulations or guidelines for implementing mobile learning or mobile-assisted language learning in the Indonesian higher education context have not been available in literature, to the best of the researchers' knowledge. However, the implementation of mobile-assisted language learning is considerably potential. According to the government report from the Ministry of Communication and Information (Rahyaputra, 2018), there have been 308.2 million mobile phones connected to the Internet. Directorate General of Higher Education of Indonesia (2020) has also launched the guidelines for conducting the teaching and learning process during this pandemic situation. One of the temporal solutions mentioned in the guidelines is that lecturers are encouraged to provide synchronous and asynchronous learning tutorials through forums, chats, emails, blogs, and social media. This indicates that the use of smartphones and mobile-based technologies are recommended to maximize the learning process through such learning platforms.

Considering its merits and potential, the implementation of MALL has been of great interest among many language learning researchers and academicians since its inception in academia in 1994 (Burston & Giannakou, 2022 in their comprehensive meta-analysis). A considerable body of research (Amin & Sundari, 2020; Darsih & Asikin, 2020; Hsu, 2013; Huang et al., 2020; Jarvis & Achilleos, 2013) have particularly investigated the implementation of MALL in foreign language classrooms. Hsu (2013) conducted a cross-cultural study of MALL among 45 international students from seven countries at three universities in Central and Southern Taiwan. The results showed that all of the students

demonstrated positive attitudes toward the implementation of MALL; particularly the constructivism aspects. It was also found that this open and innovative instructional approach to language learning was still considered new and sophisticated for some students with certain cultural backgrounds, despite its capability to enhance their learning motivation.

Involving students from different countries, as in the Hsu's (2013) study, Jarvis and Achilleos (2013) compared the practices and perceptions of non-native speaker of English (NNSoE) MA TESOL students in using computers and other mobile devices (OMDs). The results revealed that while both types of technological tools were considered helpful to assist them with unconscious language acquisition, they preferred using computers and laptops for conscious learning purposes. However, OMDs were preferred for its convenience and comfort due to its portability and wireless features to be used without time and place constraints.

Within the current learning context, Huang et al. (2020) continued the discussion by investigating mobile learning in emergency remote teaching (ERT) in a Chinese university. About 73.27% of the students preferred to the use of smartphones for online English language learning. The students also got used to using cell phones for their daily life purposes, despite its small screens. One major challenge identified in their study was the frequently slow internet connection during the process of online learning.

In the Indonesian context, Amin and Sundari (2020) studied EFL students' preferences on digital platforms during ERT among 140 undergraduate students from two universities in Jakarta and Aceh. Their survey results demonstrated that WhatsApp obtained the highest percentage for materials delivery and for content material learnability. The results were consistent across learning styles and preferences. Meanwhile, Google Classroom was perceived helpful for presenting language exercise, meaning focus, directions, and instructions. Another study conducted by Darsih and Asikin (2020) revealed that Google Translate, YouTube, Zoom, and Google Meet were among the most frequently used mobile applications during the students' English learning process. Their perceptions reinforced the usefulness of such applications to facilitate learning. The usefulness of such mobile-based learning applications further made their learning enjoyable and meaningful. Hence, they would recommend the use of those apps in the future courses. However, they argued that complaints among the students were undeniable due to the preferences to F2F learning mode, confusion to adjust to the new learning settings, and connectivity issue. The last aspect reinforced Huang et al.'s (2020) findings.

Although the implementation of mobile-assisted language learning has been investigated recently, the results cannot be generalized in other learning contexts; especially in other foreign languages. Most of the studies focused on English as foreign language students' perceptions and experiences. Much is still unknown whether Korean as foreign language students hold similar perceptions of and experiences in mobile-assisted language learning. Therefore, this study seeks to delve into the students' perceptions of MALL as well as their behaviors in applying MALL to learn Korean language. The following research questions guides the present study.

1. What are the students' experiences in implementing mobile-assisted language learning in learning Korean language?
2. What are the students' perceptions of the implementation of mobile-assisted language learning in learning Korean language?

Method

Design

This study employed a descriptive qualitative approach (Creswell, 2012) because it aimed to capture how the students perceived the implementation of mobile-assisted language learning in their online Korean classes. The data were obtained by using a survey technique, followed by an interview session. However, the survey was not intended to test any hypotheses; only to describe the trends and variety of the students' responses to the implementation of MALL in learning Korean language.

Context

Due to the COVID-19 plague, the research was conducted fully online. Regarding the regulation of mobile-assisted language learning, the university did not oblige the lecturers to utilize mobile devices in their online classes nor formalize MALL in the class level. However, the students were allowed to use mobile devices, based on their needs and preferences. It was intended to provide them space and discretion in managing their learning process so that they could maximize their potentials with their learning devices. For this purpose, the researchers only focused on their perceptions of enacting mobile-assisted language learning in the Korean language classes.

Participants

There were 379 Indonesian undergraduate students, currently registered in the Korean language education study program. Because mobile-assisted language learning was not formalized yet in the context of higher education in Indonesia, particularly in the target university, the researchers set the criteria in selecting the participants. The eligible participants were those who have ever used mobile or smartphones to learn Korean language during the pandemic situation. At last, 79 students gave their consent to participate in this research. While 86% of the participants were female students, 14% of them were male students. They were 20 or 21 years old on average.

Instruments and data collection procedure

Two instruments were used in the present study: a questionnaire and an interview protocol. The questionnaire was developed by first reading previous relevant research and theories. The researchers decided to divide the questionnaire items into four main purposes, as follows.

Table 1. Description of the questionnaire items

Part	Purpose	Items No.
A	Frequency of using mobile/smartphones in doing learning activities	1-8
B	Kinds of technology accessed by using mobile/smartphones	9-20
C	Challenges in utilizing mobile/smartphones in learning Korean language	21-25
D	Perceptions of the implementation of MALL in Korean classes	26-36

In total, the questionnaire consisted of 36 Likert-scale items (Table 1). For Part A, the response value was 1=Never and 5=Always. From Part B to D, the response value was 1=Strongly Disagree and 5=Strongly Agree. Then, the questionnaire was piloted to 20 students. The results revealed that all items were already valid and reliable (Pearson correlation coefficient value > .700 on average; Cronbach's alpha value > .900). The student respondents also told to us that there was no difficulty in understanding each item and response item in the other three parts. Hence, the researchers sent the online questionnaire using Google form to the target respondents.

The data collection process proceeded to the interview sessions. The interview guide was formulated by the researchers after reading several relevant studies. It was intended to dig further insights from the participants regarding the implementation of MALL; to enrich their responses in the questionnaire. The interview guide consisted of six questions regarding potential, advantages and challenges of learning Korean using mobile devices as well as the potential of online and distance learning with their suggestions to conduct MALL better in this particular context. At first, the interview guide was piloted to two students. The results showed that the students were quite confused when being asked about the design of MALL to be better implemented in Indonesian higher education. Afterwards, the question was modified from 'design' to 'suggestion' to ease the students in digesting the question. Eleven (n=11) students were willing to participate in the interview. Due to the pandemic situation, the researchers decided to conduct the interview session using Zoom. The students have agreed that the entire interview process was video-recorded. Indonesian language was also used to minimize misunderstanding and to avoid the incomplete and unnatural responses or answers from the students.

Data analysis procedure

The questionnaire results for Part A to C were calculated by using SPSS 23 to obtain the mean of the scores of each item. The validity and reliability of the questionnaire items of Part D: Perceptions of the implementation of MALL in Korean classes were tested by using SPSS 23, as can be seen in Table 2 below. The statistical analysis results (see Table showed that all items were valid with the significance value at the 0.01 level (2-tailed). The Cronbach's alpha of the items was .956, indicating that the items were reliable enough to get the same results if they were reused.

Table 2. The results of validity and reliability tests

Item No.	Pearson Correlation (r)	Sig. (2-tailed)	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	.812**	.000	.779	.953
2	.873**	.000	.845	.951
3	.861**	.000	.825	.951
4	.878**	.000	.846	.950
5	.877**	.000	.848	.950
6	.762**	.000	.714	.955
7	.798**	.000	.749	.954
8	.843**	.000	.805	.952
9	.830**	.000	.791	.952
10	.837**	.000	.799	.952
11	.827**	.000	.787	.953

**Correlation is significant at the 0.01 level (2-tailed)

Meanwhile, the interview transcripts were first coded by the researchers. One transcript was coded to generate the initial code list, which was then used to code the other transcripts. It was intended to ease the researchers in comparing the coding results of each transcript constantly. By doing this, it helped the researchers highlight the similarities and discrepancies among the students' responses. An example of coding results can be seen in Table 3.

Table 3. An example of coding the interview data

Question	Student A	Student B	Student C	Label/Code
Sejak kapan anda menggunakan mobile/smartphone untuk belajar bahasa Korea? [When did you first use mobile / smartphone to learn Korean?]	*Mempelajari bahasa Korea secara otodidak melalui aplikasi sejak SMA.*[I learn Korean by myself using mobile apps since I was in senior high school]	*Pada awalnya menggunakan aplikasi Duolingo, Belajar Bahasa Korea semenjak kelas 2 SMA.* [At first, I learnt Korean using Duolingo app. I have learnt Korean since in my second grade of senior high school]	*Menggunakan teknologi smartphone untuk belajar bahasa Korea sudah semenjak sebelum masuk kuliah.* [I already used smartphone to learn Korean before I entered into higher education]	Since senior high school

After coding all interview transcripts, the researchers cross-checked the coding results to ensure the data trustworthiness. All transcripts were not translated into English yet to ease the researchers in analyzing them and to avoid mistranslation. However, any students' excerpts presented in the following section will be in Indonesian and English.

Findings and Discussion

Findings

The students' experiences in learning Korean language using mobile/smartphone

Figure 1 depicts the bar chart of the mean score of each item regarding the frequency of doing the learning activities using mobile/smartphone. The results showed that the students frequently used mobile/smartphones to send messages to their friends and. to check new notifications was the second most frequently done learning activity using mobile/smartphone, which was even higher than attending to synchronous meeting. However, they were less frequent to send messages to their lecturers. This can be related to either the students' preferences on using laptop/desktop-based devices or the infrequent schedule for synchronous meeting. The students also used mobile/smartphone frequently to access the assignments than to access the learning materials or submit their works. This may be caused by the student's need to ensure their understanding of the instructions and to bear in mind the due date. Hence, they do such learning activity several times more than the other two activities. All in all, most of the students demonstrated a frequent use of mobile/smartphone to accomplish various learning activities.

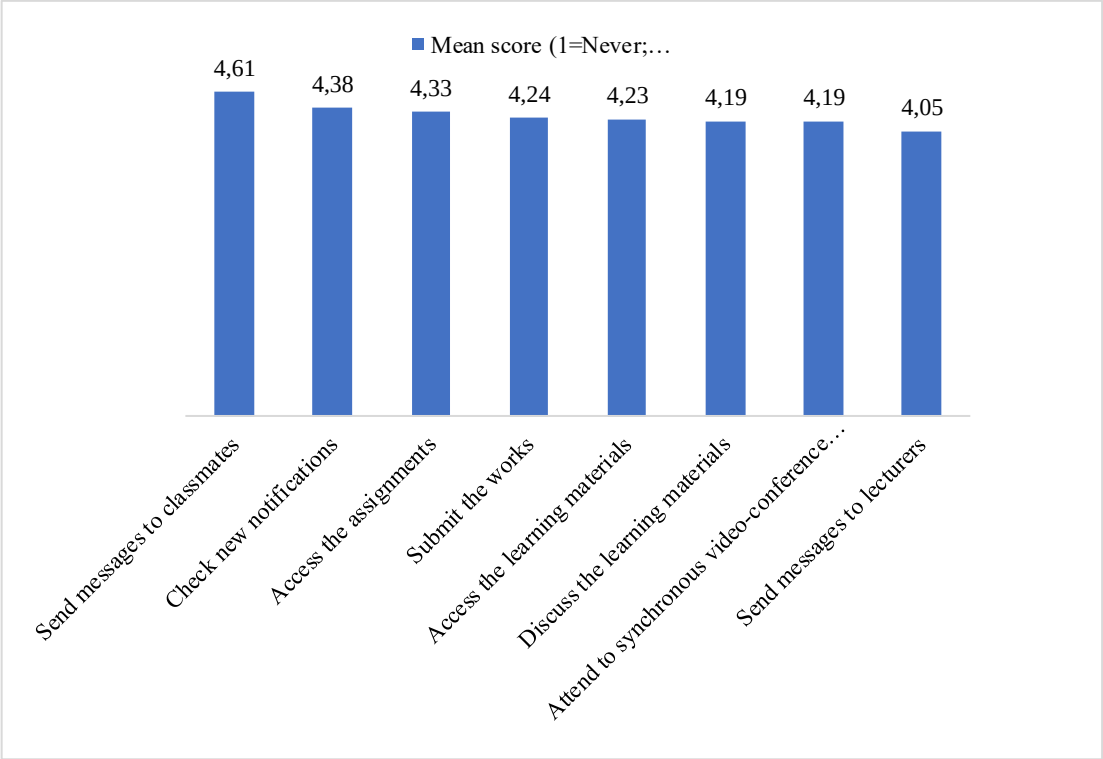


Figure 1. The frequency of learning activities using smartphone among students

Figure 1 presents the bar chart of the mean score of each item regarding the frequency of using the learning media/platform through mobile/smartphone in Korean classes. The results exhibited that while the students preferred to use their mobile devices to access Google Classrooms, followed by Zoom, they did not prefer to use their phones to access FlipGrid. Using mobile devices to access online dictionary was not considerably preferred by the students, compared to the current popular social media such as WhatsApp, YouTube, and Instagram. This

might be caused by the students' goal to increase their vocabulary range in learning Korean language. However, those social media were more frequently accessed through mobile/smartphone than the other two social media: blogs and Facebook. This may indicate that WhatsApps, YouTube, and Instagram can provide richer resources for learning Korean language than the other two types of social media. Meanwhile, the less frequent access to Google Meet and Microsoft Teams using mobile/smartphone than Zoom was correlated with the number of Korean-related courses using Zoom more than the courses using other video-conferencing tools.

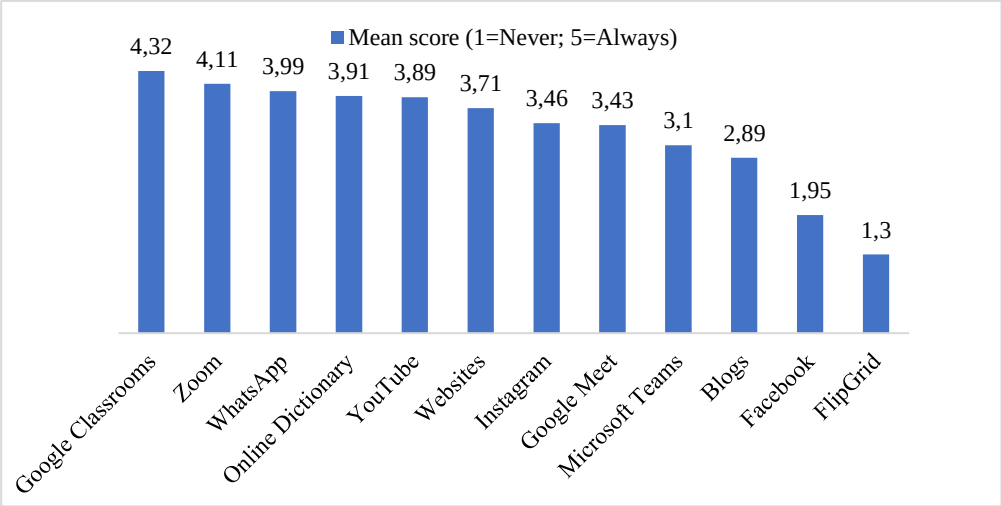


Figure 2. The frequency of accessing apps using smartphone among students

Figure 2 displays the bar chart of the mean score of each item regarding the encountered challenges in learning Korean language using mobile/smartphone. Unstable internet connection during synchronous meetings was the most frequently encountered challenge among the students when they used their phones. Meanwhile, difficulty in signing in to the app was the least encountered challenge. It can be influenced by the ease of use of the learning media utilized in the Korean language classes such as Zoom and Google Classroom. However, it is undeniable that stable internet connection depends on the strength of the bandwidth of the internet provider. The students also viewed that using mobile/smartphone had limited features. This can influence the quality of their learning process, as compared to the desktop-based devices. Due to the portable and handheld design of mobile/smartphone, small screen could lessen the process of having chats with others, albeit not significantly concerning. Performance issue such as screen lagging or sudden stop was sometimes experienced by the students. The results imply that challenges in using mobile/smartphone to learn a foreign language are inextricable.

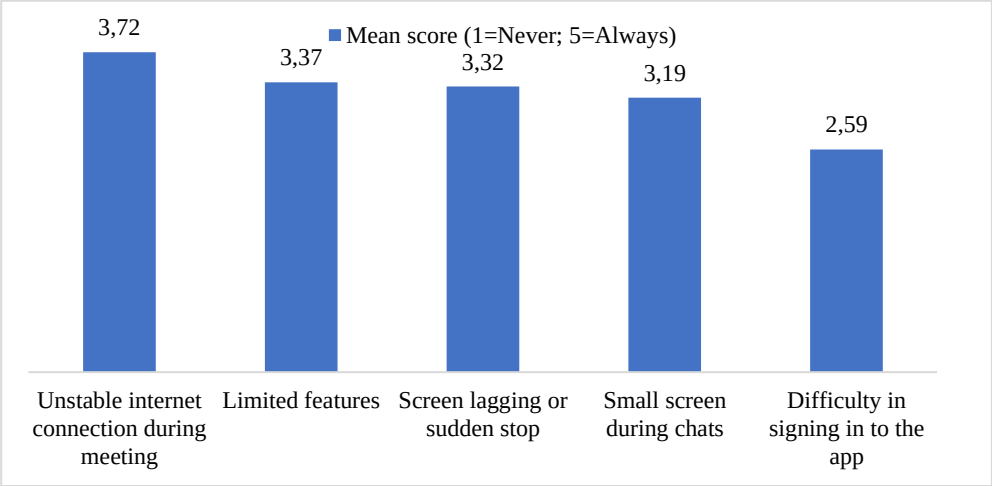


Figure 3. The frequency of encountering challenges in using smartphone among students

The difficulty in signing in to the app was also related to the compatibility of the smartphone in accessing and using the app. Student 2 expressed in the interview session, *"Hpnya tidak kompatibel dengan beberapa aplikasi, yang bisanya diakses di Korea [My phone is not compatible with several applications, that can be accessed only in Korea]*." It was also mentioned by Student 30, *"Tantangannya ketika devicenya kurang bisa eksplor atau terbatas jika ada platform berbayar [The challenge is when the device cannot explore what we need more, or is limited to the platforms which should be purchased first]."* This indeed limits the students' space to explore the learning materials relevant to enrich their knowledge and skills when they have to do self-study.

Several students added more responses in the "other" option provided in the questionnaire regarding the encountered challenges in using mobile/smartphone. Table 4 shows the sample of each challenge expressed by the students. First, several students admitted that technical problems were sometimes occurred especially when they were following a synchronous Teams meeting or doing assignment. Another technical problem was evident when the battery life of their smartphones was not long enough. It was because they relied mostly on their smartphones to do the learning activities. A sudden close was also encountered by the students if they opened many tabs at the same time in doing the assignments. Second, the limited data storage could hinder the students to do every learning activity using their mobile devices. Because they have to attend to sixteen meetings in the entire course, their devices must be adjusted to be able to save large-size learning materials or assignments.

Table 4. Other challenges identified in the open-ended item

Student	Category	Example	Excerpt
Student 5	Technical problems	Lagging	Sering lag karena beberapa aplikasi terlalu berat seperti Microsoft Teams. Saya selalu kesulitan untuk mengakses dan mengumpulkan tugas [*It (using smartphone) is often lagging because several applications like MS Teams are*

Student	Category	Example	Excerpt
			too heavy to be read. I always find it difficult to access and submit the assignments]
Student 15		Short battery life	Karena device hanya ada smartphone saja, jadi baterainya cepat low [*Because I only have smartphone, the battery life decreases fast*]
Student 29		Sudden close	Suka keluar dari website jika membuka berbagai tab kalau sedang mengerjakan tugas [*(I) often (experience) sudden close if I open various tabs when doing the assignment*]
Student 62	Capacity & connectivity issue	Limited data storage	Kapasitas penyimpanan data kurang mendukung di smartphone [*The data storage capacity is not supporting in (my) smartphone*]
Student 66		Too much internet quota	Kebanyakan membutuhkan kuota internet. Hal ini membuat saya sedikit kurang nyaman [*It needs much internet quota. This makes me feel a little bit uncomfortable*]
Student 38	Screen size issue	Limited view	Tampilan layar hp dan leptop terkadang berbeda, dan tentunya lebih jelas saat menggunakan leptop dari pada hp. Tapi hp fleksibel bisa di bawa kemana saja dengan mudah.

Another student reported that mobile devices spent too much internet quota. This can hinder their learning process when they cannot continue attending to a synchronous meeting due to out of internet quota in the middle of the meeting. Moreover, not all students got subsidized internet quota from the government. Third, the students might feel uncomfortable with the small screen size of their smartphones when they wanted to see something clearly. Although it was portable, they found it difficult to see something clearly using smartphone because the view was automatically adjusted to the phone screen.

The student's perceptions of the implementation of MALL in Korean classes

This sub-section delineates the perceptions of MALL in learning Korean language among the Indonesian undergraduate students. The results showed that mobile-assisted language learning was practical and flexible, particularly in learning Korean language. The practicality and flexibility of MALL influenced the students' perceptions of its usefulness. First, most students felt that MALL helped them in developing their Korean language skills. This might be caused by several factors; one of which was the possibility of being more productive in learning enabled by implementing MALL, albeit not significantly agreed by them. Second, the students perceived that MALL could elevate their motivation in learning Korean language. The increased motivation was in line with the advantage of MALL in promoting the students' learning autonomy. Since autonomous language learning requires the student's capacity to take charge of

their learning process and progress from the planning to the evaluation stage, it was no surprise that critical thinking was also developed through MALL, as reported by some of the students.

Furthermore, the students' responses demonstrated that mobile-assisted language learning could spark interactions with other people during the learning process. MALL also allowed the students to communicate with other people regarding the learning materials and assignments. The increased opportunity to spark interaction and increase communication could assist the students to keep collaborating with other classmates at the Korean classes. This situation may have a correlation to the previous merit of MALL; that is developing the students' Korean language skills. The advantages mentioned before made some of the students feel comfortable in implementing mobile-assisted language learning in the context of learning Korean language. That was why they were willing to recommend their friends to implement MALL in learning Korean language.

The merits of mobile-assisted language learning were justified in the interview sessions, as expressed below.

> *Manfaat belajar menggunakan smartphone adalah bisa diakses kapan saja dan dimana saja* [The advantage of learning using smartphone is that (the learning) can be accessed anywhere and anytime]. *Student 30*
>
> *Manfaat belajar bahasa Korea menggunakan smartphone adalah semakin mudah mendapatkan informasi untuk menunjang pembelajaran* [The advantage of learning Korean language using smartphone is that it makes obtaining information to support the learning is easier to do]. *Student 11*
>
> *Manfaat belajar bahasa Korea menggunakan smartphone yaitu terasa meningkat dalam bagian speaking karena lebih banyak interaksi dengan dosen. Selain itu, lebih banyak belajar mandiri* [The advantage of learning Korean language using smartphone is that the speaking skill increases because of more interactions with the lecturer. Moreover, the autonomous learning is more enacted]. *Student 14*

The excerpts above reinforced the portability aspect of smartphone where they could access the learning without limitations of time and place. It resulted in the perception that obtaining information to support their learning process became easily accomplished. The portability aspect of smartphone could also enable the students to interact with their lecturer so that their speaking skills could be enhanced.

Discussion

The results of the present study demonstrate that mobile-assisted language learning is possible to be implemented in the Korean language classes for Indonesian undergraduate students. One of the evidences for this is that their experiences, captured through the questionnaire results, exhibit the considerably frequent use of smartphones for their learning purposes from searching for information or learning materials to submitting assignments. Another evidence is from their experiences in using smartphones to access social media as a means of learning Korean language such as YouTube and WhatsApp. Even, some of them used their phones to attend to synchronous meetings via Zoom. This reinforces Kukulska-Hulme's (2020) idea that spontaneity of access to learning materials is a

distinctive advantage of MALL. The students do not have to worry about handling other activities at home during the pandemic situation because it is quite easy to obtain information from the Internet using their phones. It then justifies the affordances of situated learning through MALL because they can adjust the learning activities and process, based on their needs at a specific time and place. Moreover, the students have been familiar with the use of smartphones and the Internet in which they use them for daily bases. Student 14 states, *"*Menggunakan teknologi smartphone untuk belajar bahasa Korea sudah semenjak sebelum masuk kuliah" *[I already used smartphone to learn Korean before I entered into higher education]*. It is no surprise considering the increasing number of users of mobile phone and the Internet in Indonesia, as referred to the report from the Ministry of Communication and Information (Rahyaputra, 2018).

Another merit of MALL, identified in the present study is increased interactions, motivation, and engagement toward autonomous learning. The portability of mobile devices and the spontaneity of access to learning materials enables them to interact with other people without borders of time and space. Increased interactions can motivate the students to learn more since they can share what they have learnt and otherwise with other students from other parts of the world. The merit of MALL to increase students' learning motivation resonates with Darsih and Asikin (2020) in EFL context, finding that the use of English mobile applications is perceived as useful to enhance motivation to learn the language. MALL, then, lends support to Vygotsky's (1978) constructivism learning theory where interaction and active learning experiences become the basis for creating a constructive learning process. Increased student engagement through MALL has also been articulated in the previous review (Shu et al., 2018). Once the three aspects of language learning are maintained, the students can be more capable of taking charge of their learning; in other words, enacting learning autonomy.

However, the implementation of mobile-assisted language learning can be demotivating and destructive for the students if it is not carefully designed and monitored. Two main concerns can be the contributing factors of such consequences. First, the diverse characteristics of the students may affect the students' view of MALL. For example, the students may feel that MALL is a one-way learning method because they mostly use smartphones for self-study and smartphones are designed for personal devices. Hence, they may experience fewer interactions, as compared to the face-to-face learning environment. Fewer interactions can inhibit students' engagement and motivation, as mentioned by Smoyer, O'Brien, and Rodriguez-Keyes (2020). During this pandemic situation, it is therefore essential for teachers to design a two-way learning process through MALL. Second, technical problems can be another challenge for the students to maintain the implementation of MALL. For example, Student 14 expresses that unstable internet connection and error processing such as lagging or force closing are the two biggest challenges. This is in line with what Amin and Sundari (2020) found in their study that the connectivity issue remains.

The researchers argue that mobile-assisted language learning can tackle the concerns, mentioned before. The students also perceive that MALL has potential but needs improvement. For example, Student 11 opines that learning the Korean language using mobile phones is flexible, but it requires good specifications to

support the learning process. This indicates that the teachers need to design MALL carefully, considering the students' preferences and smartphone specifications. Since MALL has not been enacted in formal education, the universities do not provide smartphones or mobile devices for the students' learning. Diverse students' personalities and learning strategies when dealing with the concerns mentioned before should be taken into account as well. The students can feel demotivated to learn foreign languages if they encounter challenges or limitations in exploring the lessons. While introverted students prefer self-reflection, their counterparts may prefer collaborative reflection. One practical solution for this is encouraging them to keep reflecting on their learning progress and achievement. Once it has been regulated, their metacognitive skills can be developed. Previous research (Ilic, 2021; Zheng & Yu, 2016) has examined the merit of implementing a mobile computer-supported collaborative learning context in enacting the students' reflection and metacognition toward increased motivation and L2 development. Collaborative activities in nature trigger collaborative experiences and ideas through interaction (Procee, 2006), through which the students can maintain their learning motivation.

Conclusion

The present study has delineated the experiences and perceptions of the implementation of mobile-assisted language learning among undergraduate students, learning Korean as a foreign language. The results demonstrate that the students mostly learn Korean using smartphones in the learning activities, ranging from accessing the learning materials to discussing with other classmates. They further perceive that MALL is beneficial for them to enhance their learning productivity toward increased Korean language skills as well as soft skills such as motivation, autonomy, and critical thinking. Notwithstanding, they admit that challenges are still evident in applying MALL, mostly related to technical problems, rendering demotivation and less engagement in the learning process. Hence, future research needs to investigate the results of applying the mobile computer-supported collaborative learning method to maintain the students' motivation and engagement. The results can enrich the literature toward a more comprehensive MALL design that can cater to the students' diverse characteristics and learning strategies.

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