

Attitudes Towards English Language Learning Apps from Korean and Chinese EFL Students

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Cheng, Jing, & Kim, Hyun-Ju. (2019). Attitudes towards English language learning apps from Korean and Chinese EFL students. *English Teaching*, 74(4), 205-224.

The purpose of study was to investigate university students' attitudes towards English language learning apps and examine whether there is any significant difference in their attitudes depending on their personal variables such as their gender, major, grade, nationality, and so on. This study also explored students' perceptions of English language learning apps that they have used. Participants were college students living in Korea and China. Data were collected by means of a questionnaire and an interview. Results showed that both Korean and Chinese students generally held positive attitudes towards English language learning apps, although Chinese students showed more positive attitudes than Koreans. The main reasons that they liked to use English language learning apps were their convenience, ubiquity, and rich resources. On the other hands, it was revealed that the lack of communication and feedback was the main problem of using such apps. Both Korean and Chinese students stated that it was an effective way to use English language learning apps to practice pronunciation, vocabulary, listening, and reading skills. Findings of this research suggest that English language learning apps should be developed to inspire users/students' learning interest and foster learner autonomy.

Key words: English language learning apps, Korean and Chinese students, effectiveness, attitudes, interest, autonomy

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1. INTRODUCTION

Advances in science and technologies have provided new possibilities for language learning in various way such as mobile learning (m-learning) and computer-based learning. As the impact of m-learning has grown in the field of education, language learning benefits from the widespread ownership of mobile devices such as personal media players, smartphones and wireless laptops (Kukulska-Hulme, 2006). For English learning, m-learning has become important for university teachers and learners due to its benefits and effectiveness. There is much evidence that m-learning can improve students' English language proficiency (Chinnery, 2006; Kang & Kim, 2007; Kim, 2013; Kukulska-Hulme, 2009; Salih, 2019). In addition, m-learning has great potential for learners to facilitate their personalized learning, provides a large number of free learning materials, collaborates with peers, supports authentic and situated learning, and helps learners to find their own problems. Positive perceptions and attitudes towards m-learning among students have been presented in much research (Azar & Nasiri, 2014; Chen, 2013; Kukulska & Traxler, 2007; Nash, 2007; Sharples, 2000).

Recently, a large number of mobile apps such as Naver dictionary, Yanadoo, and Papago has been developed for English language learning, and some of these apps are popular to EFL learners. As a new type of learning materials, English language learning apps can offer students with various new learning opportunities and experiences. Numerous apps have been developed for EFL learners to promote their English proficiency. Unlike traditional learning methods, they are convenient and easy for learners to access learning materials by using mobile apps. Some researchers found the effectiveness of the mobile apps with respect to English learning in different areas (Hamad, 2017; Kim, 2013; Kim & Kwon, 2012; Suwantarathip & Orawiatnakul, 2015; Wang, Teng, & Chen, 2015). Learners can use English learning apps to look up words, translate passages, read English news, listen to English broadcast, practice pronunciation, etc.

Most studies focus on development, effectiveness and benefits of mobile apps for language learning (Gangaiamaran & Pasupathi, 2017; Kim, 2013; Kim & Kwon, 2012; Klímová, 2018; Zou & Li, 2015), but there is a lack of research on students' attitudes towards English language learning apps. In addition, most studies on the attitudes towards English language learning apps have investigated their perceptions of using SNS or chatting apps such as Twitter, Facebook, Kakao talk to learn the English language. The current study aims to investigate English learners' attitudes towards English language learning apps from Korean and Chinese students, and examine whether there is any significant difference in their attitudes depending on various different factors such as their gender, grade, major, etc. The reason that this study compares the attitudes between Korean and Chinese students is because their English education environment is similar and their

English education app development levels are similar with each other. The study aims at answering the following research questions:

1. To what extent is there a significant difference between Korean and Chinese students in their attitudes towards using English language learning apps?
2. Is there a significant difference in their attitudes toward English language learning apps depending on their personal characteristics (e.g. gender, grade, major, etc.)?
3. What are their perceptions of English language learning apps that they have ever used?

2. LITERATURE REVIEW

2.1. Definition of M-learning

Mobile learning (m-learning) has been defined by researchers in various ways. As the intersection of mobile computing and electronic learning (e-learning), m-learning is also called e-learning through mobile computational devices: Palms, Windows CE machines, and cell phones (Quinn, 2000). It provides educational and training courses on wireless devices such as PDAs, palmtops and mobiles (Keegan, 2002). Therefore, m-learning can be defined as e-learning using mobile devices and wireless transmission (Hoppe, Joiner, Milrad, & Sharples, 2003), involving “any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantages of learning opportunities offered by mobile technologies” (O’Malley et al., 2003, p. 7).

Traxler (2005) defines m-learning as being, “any educational provision where the sole or dominant technologies are handheld or palmtop devices” (p. 262). M-learning should be restricted to learning on mobile devices which can be carried in a person’s handbag or pocket (Keegan, 2002). Caudill (2007) defines m-learning as “any e-learning application delivered on-demand through mobile digital devices” (p. 3) that people can receive learning materials via their mobile devices without any restrictions of electronic technology whenever they are. M-learning is a special e-learning supporting mobility improved from media content to transmission technology (Anani, Zhang, & Li, 2008).

Some researchers (Kukulsa-Hulme, 2009; Traxler, 2010) hold views that the definitions of m-learning are unstable. Kukulsa-Hulme (2009) states that “mobile” is ambiguous in that it relates to mobility of technologies or the mobility of learner. Earlier definitions of m-learning are seen as too techno-centric and they are seen as too unstable owing to the

transience and diversity of the devices, systems and platforms (Traxler, 2010). Mobility not only involves the physical features of mobile devices which learners use but also means learners' learning process and their behaviors while using mobile technology to learn (El-Hussein & Cronje, 2010). The diversity of the research on m-learning has made it difficult to generate a single definition or to determine generally added benefits (Baran, 2014).

2.2. Advantages of M-learning in Language Learning

Mobile devices are portable due to their characters of small-sized and lightweight which offer learners opportunity to learn language outside the classroom as mobile devices can be taken from one place to another (Naismith, Lonsdale, Vavoula, & Sharples, 2004). The portability of mobile devices enables students easily to use the equipment and access to learning materials in any place on their own time (Chinnery, 2006). In addition, ubiquity of m-learning offers learners opportunities to learn without the restrictions of place and time which allows them to interact with their teachers and peers anywhere and anytime (Fujimoto, 2012; Geddes, 2004; Miangah & Nezarat, 2012; Sharples & Pea, 2014). Mobile devices have become tools for language learning to make language education as ubiquitous as possible which provides environment for students to study their second language beyond the classroom when they desire (Miangah & Nezarat, 2012).

As in technology-enhanced language learning milieu, m-learning environments might be online and self-paced (Chinnery, 2006). As a result, learner-led language learning can be supported by m-learning. Moreover, m-learning allows students to collaborate with their peers and provides collaborative learning opportunities (Klopfer & Squire, 2008; Koole, 2009; Viberg & Grnlund, 2013). M-learning supports personalized and authentic learning in that it can provide personalized and authentic learning environments (Traxler, 2010; Kukulska-Hulme & Traxler, 2007). Mobile devices and technology enable students to easily get into different contexts and materials which they cannot access to in their daily life to facilitate learning activities (Naismith et al., 2004).

2.3. Disadvantages of M-learning in Language Learning

Although language learning has benefited a lot from m-learning, there are still problems and issues existing. According to Stockwell and Hubbard (2013), the issues could be divided into three domains: physical, pedagogical, and psycho-social.

First, the physical features of mobile devices such as small-sized screen and keyboard, limited storage and battery capacity, and reading difficulty make learners difficult in the

process of learning languages (Chinnery, 2006; Fouh, Breakiron, Farghally, & Shaffer, 2014; Miangah & Nezarat, 2012; Stockwell, 2008; Wang & Higgins, 2014). Second, learners' achievements are hardly assessed because they are fully responsible for their learning. It is hard to supervise students' learning process and learning behaviors by using mobile devices (Rovai, 2002). Third, since most people prefer to relax themselves while using mobiles, learners may perceive that mobile devices are not appropriate for language learning.

2.4. English Language Learning Apps in M-Learning

Mobile apps provide a diversity of learning tools that can be installed on mobile devices (Steel, 2012). Jeong, Ko, Lim, Sim and Kim (2010) categorized five types of educational apps: self-instruction, repeated practice, simulation, game, problem-solving, material-provide, assessment, and tool. For language learning, there is a wide variety of apps developed for improve language skills such as listening apps, dictionary apps, translation apps, English news apps, speaking practice apps, etc.

According to Song and Fox (2008), using an English learning apps on PDA can improve students' vocabulary skills in self-directed ways. Students can install dictionary apps on their PDAs and learn vocabulary by themselves depending on their own academic goals. Kim (2013) examined the effects of Kakao on improving students' English listening skills and found that students achieved significant improvement in their listening tests and responded positively with respect to using apps. Kim (2016) also found that students at all proficiency levels achieved improvement in their speaking ability by using Kakao or voice chatbot apps. Although there is little research on the attitudes toward using English learning apps, most studies have shown that there are positive perceptions of using English learning apps because they provide many opportunities to practice English and as a result they reduce their anxiety of using English and promote confidence.

3. METHOD

3.1. Participants

The participants in the study were 251 college students (113 Korean and 138 Chinese students). The majority of students were non-English major students ($n = 235$), and a few students ($n = 16$) were English major. The backgrounds of the participants are presented in Table 1.

TABLE 1
The Backgrounds of Participants

		<i>N</i>	%	Korean	Chinese
Gender	Male	161	64.1	49	112
	Female	90	35.9	64	26
Major	English Major	16	6.4	12	4
	Non-English Major	235	93.6	101	134
Grade	1st Grade	146	58.2	8	138
	2nd Grade	23	9.2	23	0
	3rd Grade	38	15.1	38	0
	4th Grade	44	17.5	44	0
Nationality	Korea	113	45.0	113	-
	China	138	55.0	-	138
Total		251	100.0	113	138

3.2. The Usage Information of English Language Learning Apps

The usage information of the participants is presented in Table 2. Smartphones are the most common mobile devices that Korean and Chinese students own. Students (80.9%) normally have used English language learning apps for less than 1 hour per day for listening (52.2%) during self-study (64.1%). The main problem for using English language learning apps the participants faced was distracting their attention. They responded that physical issues of mobile learning were not a big issue.

3.3. Data Collection and Analysis

The data in the study was collected by the questionnaire regarding the students' attitudes towards using English language learning apps. The researchers used a questionnaire app and generated a QR code. They asked the participants to fill in the questionnaires by scanning the QR code via their smartphones (see Appendix A). The data was statistically analyzed through SPSS ver. 23. Descriptive statistics were used to analyze the students' attitudes towards using English language learning apps. A MANOVA was performed to examine whether there was any difference in their attitudes depending on their personal characteristics. Independent samples *t*-test was used to analyze whether there was a significant difference between Korean and Chinese students' attitudes. In order to examine the reliability of the questionnaire, Cronbach's α was calculated and it was .845, which is reasonably reliable.

TABLE 2
The Usage Information of English Language Learning Apps

		<i>N</i>	%	Korean	Chinese
Kinds of mobile device the students owned	Smartphone	243	96.8	105	138
	Kindle	13	4.8	5	7
	Tablet PC (IPad)	54	21.5	34	20
	MP3/MP4/MP5	6	2.4	3	3
Number of English language learning apps	1-3	203	80.9	83	120
	4-6	36	14.3	19	17
	7-10	4	1.6	3	1
	More than 10	8	3.2	8	0
Kinds of English language learning apps the students have used	Listening	131	52.2	38	93
	Speaking	60	23.9	13	47
	Reading	60	23.9	21	39
	Writing	21	8.4	9	12
	Grammar	31	12.4	18	13
	Dictionary	176	70.1	67	109
	Vocabulary	211	84.1	81	130
	Translation	134	53.4	41	93
Situation of use mobile devices for English learning	In class	71	28.3	36	35
	Self-study	161	64.1	70	91
	While waiting	29	11.6	7	22
	While commuting	20	8	9	11
	Free time	133	53	28	105
Frequency of using English language learning apps	Less than 1 hour	187	74.5	85	102
	1-2 hours	59	23.5	23	36
	2-4 hours	4	1.6	4	0
	4-6 hours	0	0	0	0
	More than 6 hours	1	0.4	1	0
The main problems faced by using English language learning apps	Small screen	27	10.9	20	7
	Limited memory	13	5.2	7	6
	Limited Battery Capacity	16	6.4	5	16
	Distraction	91	36.3	58	91
	Difficult to evaluate learning process and achievement	35	13.9	19	35
	Lack of Communication and Feedback	46	18.3	24	46
	Difficult to use mobile devices in class	21	8.4	17	21

4. RESULTS

4.1. Students' Attitudes Towards English Language Learning Apps

For the students' attitudes towards English language learning apps, as shown in Table 3, the results indicated that many students (69.3%) agreed that English language learning apps enriched their vocabulary. The second skills that they considered to be helpful by using English language learning apps were listening and reading. These results are similar

TABLE 3
Students' Attitudes Towards English Language Learning Apps

	1	2	3	4	5	<i>M</i>	<i>SD</i>
1. EAs ^a improve my listening skills.	13 (5.2%)	30 (12.0%)	111 (44.2%)	70 (27.9%)	27 (10.8%)	3.27	0.98
2. EAs improve my speaking skills.	25 (10.0%)	50 (19.9%)	109 (43.4%)	47 (18.7%)	20 (8.0%)	2.95	1.05
3. EAs improve my reading skills.	13 (5.2%)	26 (10.4%)	115 (45.8%)	73 (29.1%)	24 (9.6%)	3.27	0.96
4. EAs improve my writing skills.	28 (11.2%)	53 (21.1%)	103 (41.0%)	46 (18.3%)	21 (8.4%)	2.92	1.08
5. EAs enrich my vocabulary.	8 (3.2%)	19 (7.6%)	50 (19.9%)	118 (47.0%)	56 (22.3%)	3.78	0.98
6. EAs improve my grammar skills.	17 (6.8%)	54 (21.5%)	114 (45.4%)	46 (18.3%)	20 (8.0%)	2.99	0.99
7. EAs offer a good variety of English learning materials.	11 (4.4%)	24 (9.6%)	72 (28.7%)	101 (40.2%)	43 (17.1%)	3.56	1.02
8. EAs help me interact and collaborate with my peers.	26 (10.4%)	66 (26.3%)	96 (38.2%)	40 (15.9%)	23 (9.2%)	2.87	1.09
9. I can study English by using apps at anytime and anywhere.	9 (3.6%)	32 (12.7%)	53 (21.1%)	98 (39.0%)	59 (23.5%)	3.66	1.08
10. Learning English by using apps is easy and flexible.	12 (4.8%)	17 (6.8%)	60 (23.9%)	99 (39.4%)	63 (25.1%)	3.73	1.06
11. Learning English by using apps is efficient.	14 (5.6%)	28 (11.2%)	100 (39.8%)	74 (29.5%)	35 (13.9%)	3.35	1.03
12. Learning English by using apps is convenient.	13 (5.2%)	13 (5.2%)	53 (21.1%)	118 (47.0%)	54 (21.5%)	3.75	1.06
13. Learning English by using apps is enjoyable.	13 (5.2%)	41 (16.3%)	94 (37.5%)	70 (27.9%)	33 (13.1%)	3.27	1.05
14. EAs make me more creative.	18 (7.2%)	47 (18.7%)	130 (51.8%)	34 (13.5%)	22 (8.8%)	2.98	0.98
15. EAs inspire me think a lot.	17 (6.8%)	42 (16.7%)	125 (49.8%)	43 (17.1%)	24 (9.6%)	3.06	0.99
16. EAs can help me find my problem.	16 (6.4%)	45 (17.9%)	98 (39.0%)	66 (26.3%)	26 (10.4%)	3.16	1.04
17. Compared with traditional learning method, I prefer to use EAs.	18 (7.2%)	36 (14.3%)	85 (33.9%)	73 (29.1%)	39 (15.5%)	3.31	1.12

Note. ^a English language learning apps

to those shown in the previous research (Kohnke, Zhang, & Zou 2019; Li, 2018) in that the participants in this study agreed the effect of English language learning apps on improving their vocabulary the greatest. Li (2018) showed the effect of using smartphone on word learning, and Kohnke et al. (2019) proved that the efficiency of English language learning apps on enhancing students' business vocabulary.

For good things about using English language learning apps, many students agreed that using English language learning apps was convenient (68.5% of the students), easy and flexible (64.5%), and they could study English at anytime and anywhere (62.5%). For other good things about using English language learning apps, it was also indicated that they (57.3%) considered that English language learning apps offered a good variety of English learning materials and they (44.6%) preferred English language learning apps to traditional learning methods. These results were also commensurate with the results of previous research (Al-Fahad, 2009; Zhang, 2018). Al-Fahad (2009) held a research on students' attitudes and perceptions towards the effectiveness of m-learning and found that 39.2% of the respondents strongly agreed that m-learning would be a flexible method of learning. In Zhang's study (2018), 76.4% of students agreed that using English language learning apps could allow them learning English anytime, and 72.6% of students agreed that they could use English language learning apps anywhere.

4.2. Personal Characteristics in Attitudes

Factor analysis was performed and the three factors (effect, usefulness, and advantage) obtained through varimax rotations were shown in Table 4. The results of KMO and Bartlett's test indicated that the data was suited for factor analysis (KMO value = .921, p -value of Bartlett's test = .000). The internal consistency of the items that formed the factors were .863, .882 and .877 respectively, and the eigenvalues values of each factor were 3.818, 3.751, and 3.686. The first factor is about the effect of English language learning apps on improving English skills. The second one is about the usefulness of English language learning apps. The third is about students' perceptions of the advantages of English language learning apps.

TABLE 4
Comparison of Means of Korean Students' Attitudes and Chinese Students' Attitudes

Nationality		Effect	Usefulness	Advantage	<i>N</i>
Korean	Mean	2.8212	2.8982	3.2847	113
	Std. Deviation	.63153	.54346	.72398	
Chinese	Mean	3.2928	3.4372	3.7754	138
	Std. Deviation	.88760	.87597	.86372	
Total	Mean	3.0805	3.1946	3.5544	251
	Std. Deviation	.81588	.79057	.83873	

In order to examine whether there was any significant difference among the students' attitudes towards English language learning apps, a MANOVA test was performed. As seen in Table 5, there was no significant difference in students' attitudes towards English language learning apps according to their gender, major, grade, the number of apps they are using, the time they spend on English language learning apps, and the problem they are facing. However, there were significant differences among the students' attitudes depending on their nationality in three factors: effect ($p = .003$, *partial eta squared* = .083), usefulness ($p < .000$, *partial eta squared* = .116), and advantage ($p = .004$, *partial eta squared* = .085).

TABLE 5

Attitudes Towards English Language Learning Apps Depending on Personal Variables

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig.</i>
Gender	Effect	.005	1	.005	.009	.926
	Usefulness	.027	1	.027	.048	.827
	Advantage	.024	1	.024	.037	.848
Major	Effect	.956	1	.956	1.573	.211
	Usefulness	1.013	1	1.013	1.840	.176
	Advantage	.159	1	.159	.245	.621
Grade	Effect	2.173	3	.724	1.191	.314
	Usefulness	3.368	3	1.123	2.039	.109
	Advantage	3.622	3	1.207	1.860	.137
Nationality	Effect	5.386	1	5.386	8.856	.003
	Usefulness	6.993	1	6.993	12.702	.001
	Advantage	5.591	1	5.591	8.614	.004
App Number	Effect	1.162	2	.581	.864	.425
	Usefulness	.540	2	.270	.365	.695
	Advantage	.083	2	.042	.062	.940
Time	Effect	.272	2	.136	.202	.818
	Usefulness	2.278	2	1.139	1.539	.220
	Advantage	.039	2	.020	.029	.971
Problem	Effect	.039	2	.020	.029	.971
	Usefulness	4.768	7	.681	1.012	.427
	Advantage	10.733	7	1.533	2.071	.053

In order to investigate the differences between Korean and Chinese students' attitudes towards English language learning apps, their means were compared. According to Table 4, the mean scores of Korean students' attitudes towards the effect of English language learning apps was 2.82 while the Chinese one was 3.29. The mean score of Korean students' attitudes towards the usefulness of English language learning apps was 2.90 while the mean score of Chinese students' attitudes was 3.44. The mean scores of the attitudes of Korean students and Chinese students towards the advantages of English learning apps were 3.28 and 3.78 respectively. Therefore, the results indicate that Chinese students more strongly agreed the effect of using English language learning apps than

Korean students did.

To sum up, Korean students and Chinese students held different attitudes towards using English language learning apps; namely that there was a significant difference among students' attitudes towards using English language learning apps depending on their residing places. These results are consistent with the previous studies (Al-Emran, Elsherif, & Shaalan, 2016; Khaddage & Knezek, 2013) that showed the differences of students' attitudes toward m-learning depending on their residing places.

4.3. General Perceptions of Learning English by Using Apps

In order to investigate their perceptions of learning English by using apps more deeply, the researchers in the study conducted focus-group interviews. For advantages and disadvantages, they mostly answered that the apps they have used were convenient since they could use them anywhere and anytime. In addition, it is stated that English language learning apps were helpful since they provided a large number of learning materials. However, since there were lack of activities of interactions or receiving feedback, the students felt that they still needed a direct instruction in class. The following are the excerpts from interviews with students in China and Korea regarding the advantages and disadvantages of using English language learning apps.

Learning English via apps is very convenient. For example, the Baicizhan, a vocabulary app that I'm using, allows me to memorize words more easily.

I can use English language learning apps anytime and anywhere. They are really convenient.

English language learning apps allow me to study English without the limitation of time and location.

I can do listening practice and memorize English words anytime and anywhere. It is really convenient. These apps can help me consolidate what I have learned.

It provides American English pronunciation and British English pronunciation simultaneously. It also provides a lot of reading materials and listening materials.

Using apps is convenient, and they can provide various learning materials for me.

It has various English learning materials which textbooks usually don't have and these materials are all free. They help me think a lot and inspire my interest.

Some apps provide functions to communicate with foreigners, so I can

improve my oral language skills, I think.

The apps provide a large number of English learning materials. They make language learning more easily and I can even study by myself.

When the participants were asked how the English language learning apps helped them improve their English ability, they mostly answered that they correct their pronunciation, enrich their vocabulary, improve their listening and reading skills as previous studies (Hamad, 2017; Kim, 2013; Salih, 2019) showed. The following are the excerpts from the conversations with the students regarding the effectiveness of using English language learning apps.

I can follow the pronunciation which the apps provide so I can correct my own pronunciation. I think correct pronunciation is very important for improve my listening and speaking skills.

I use apps to memorize English words, and review them every day. There are some interesting functions to help me memorize words. Abundant vocabulary can also help me enhance my listening skills.

It is convenient for me to find English listening materials via English language learning apps. The apps also provide the function of speed adjustment. I can adjust speed according to my level.

I read the materials that the English language learning app provides every day. Now my reading speed becomes faster than before, I believe.

When the participants were asked to give some suggestions about English language learning apps, they mostly answered that it would be better if the English language learning apps provide more interesting activities so that they can concentrate on the activities more self-regularly with motivation. The following are the excerpts on students' suggestions for future English language learning apps.

I hope that English language learning apps can become more interesting, so I can become interested in English learning.

I hope English language learning apps can have some interesting functions to attract me and inspire my study interesting.

I hope these apps can provide the reminding function because I always forget to use them. It also can provide some functions to prevent interference.

It is better that English language learning apps can provide some learning tasks to stimulate learning motivation.

5. DISCUSSION AND CONCLUSION

As mobile technology has rapidly developed over the past decades, m-learning is not new in the field of language learning. However, the emerge of various new devices with enhanced capabilities such as smartphones and tablets supporting mobile apps have dramatically increased the attentions to language researchers and educators (Godwin-Jones, 2011). M-learning makes language learning easier and more convenient without the limitations of time and place so that EFL learners can take the advantages of using English language learning apps to study English.

This study examined college students' attitudes towards using English language learning apps with their individual characteristics. The results revealed that both Korean and Chinese students held positive attitudes towards using English language learning apps in respects of ubiquity, flexibility, and convenience. They also considered that English language learning apps enriched their vocabulary. Most of Korean and Chinese students own their smartphones, which demonstrates that mobiles have become an integral part of students' daily life. Using mobiles for learning second or foreign languages is not new for students. However, the actual rate of using English language learning apps was relatively low. It was found that the majority of students used only one to three English language learning apps for less than one hour per day, which implies that there are some problems in the apps or that the students lack motivation to use them as the previous research has shown (Chinnery, 2006, Kim & Yoon, 2013; Miangah & Nezarat, 2012).

Vocabulary, dictionary, and translation apps were the most popular ones among students. Those findings were consistent with Ahn's study (2018) presenting that students were using English language learning apps to develop their receptive skills, not productive skills. They used apps to learning English mainly during self-study or free time, and they also used them in class, while waiting for something, or as commuting. Those results revealed that English language learning apps allowed students to study English without the limitation of time and place. The students also considered that it was difficult to communicate with others and receive feedback from their peers or instructors. In addition, the physical issues such as a small screen, a limited memory, and a battery capacity were stated during the interviews. According to the suggestions given by students, English language learning apps should be more interesting to attract and motivate them to use. More functions might be added into English language learning apps as Chu (2011) stated that the functionality of the apps determine students' satisfaction levels. Language learners' needs and their motivation are important factors as Ahn (2018) suggests.

This study provides several implications for learning English language via apps. First, teachers should encourage students to use English language learning apps effectively by combining traditional teaching methods with m-learning and inspire their interests in using

the apps and develop autonomy. In other words, teachers should enable students to combine formal and informal learning. They should satisfy students learning needs in order that students can take full advantage of English language learning apps. Second, since students should concentrate on their English learning rather than other functions of their mobiles while using English language learning apps, the developers should consider the ways of integrating what the users have already learnt with what they are learning. For example, online group studies, self-assessment tools, discussion forums, etc. would be good for them to build learner autonomy. There exist some limitations in this study. All the Chinese participants were first-grade students while the Koreans' grades vary and their English proficiency levels have not been estimated. It will be better to compare their attitudes towards using English learning apps based on their English proficiency levels in the future research. In addition, the English language learning apps in each country were not the same in terms of their functions and qualities. Therefore, the results of this study cannot be generalized. However, the study provides researchers and teachers in the field of EFL contexts better understanding of students' attitudes towards English language learning apps and their perceptions of using the apps for learning the English language.

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APPENDIX A

English Language Learning Apps Questionnaire

Part. I

1. Gender: Male Female
2. Major: English Major Non-English Major
3. Grade: Freshmen Sophomore Junior Senior
4. What kinds of Mobile Devices do you have?
 Smartphone Kindle Tablet PC (iPad) MP3/MP4/MP5 Others _____
5. How many English language learning apps have you ever used on your mobiles?
 1-3 4-6 7-10 More than 10
6. What kinds of English language learning apps do you use mostly?
 Listening Speaking Reading Writing Grammar Dictionary
 Translation Vocabulary Others _____
7. When do you use your mobile devices mostly for studying English?
 In class Self-study While waiting While commuting Free time
8. How much time do you spend using apps for studying English?
 Less than 1 hour 1-2 hours 2-4 hours 4-6 hours More than 6 hours
9. What do you think the main problems of using English language learning apps?

- The screen is too small to study languages.
- Memory is limited to download many English language learning apps.
- Battery capacity is too small to study languages for a long time.
- Using mobiles distracts my concentration on studying English.
- It is difficult to evaluate my learning progress and achievements.
- It lacks communication and feedback.
- It is difficult for me to use mobiles for studying English in class.

Part II. Please check the box that best describes your experience in the following areas.

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Description	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
English language learning apps improve my listening skills.	<input type="checkbox"/>				
English language learning apps improve my speaking skills.	<input type="checkbox"/>				
English language learning apps improve my reading skills.	<input type="checkbox"/>				
English language learning apps improve my writing skills.	<input type="checkbox"/>				
English language learning apps enrich my vocabulary.	<input type="checkbox"/>				
English language learning apps improve my grammar.	<input type="checkbox"/>				
English language learning apps offer a variety of English learning materials.	<input type="checkbox"/>				
English language learning apps help me interact and collaborate with my peers.	<input type="checkbox"/>				
I can study English by using apps at anytime and anywhere.	<input type="checkbox"/>				
Learning English by using apps is easy and flexible.	<input type="checkbox"/>				
Learning English by using apps is efficient.	<input type="checkbox"/>				
Learning English by using apps is convenient.	<input type="checkbox"/>				
Learning English by using apps is enjoyable.	<input type="checkbox"/>				
English language learning apps make me more creative.	<input type="checkbox"/>				
English language learning apps inspire me think deeply.	<input type="checkbox"/>				
English language learning apps help me find solutions by myself.	<input type="checkbox"/>				
Compared with traditional learning method, I prefer to use English language learning apps for studying English.	<input type="checkbox"/>				

Applicable levels: Tertiary

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Received on October 30, 2019
Reviewed on November 21, 2019
Accepted on December 8, 2019