

The Use of Smartphones as an Educational Tool in the EFL Classroom

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Abstract

The use of smartphones are now part of Japanese students' everyday reality, there exists an opportunity to exploit these devices for educational purposes. This study aims to assess Japanese students' perceptions regarding the use of smartphones in the EFL classroom. A survey of 101 female University students was administered comprising of thirty five questions to gauge feelings towards smartphone use in class. The aim is complemented by three objectives, relating to the exploration of students' (1) attitudes towards using smartphones in the EFL classroom, (2) the perceived benefits of using smartphones while learning English, and (3) the actual use of smartphones while learning English. Secondly, this study will assess EFL students' perceptions in regards to the use of two particular smartphone apps, with these being the Quizlet and Kahoot apps. The results showed that most students like and enjoy using devices in class, and believe have assisted in certain areas of their language learning.

Introduction

Background

We live in the times when the knowledge of a foreign language can lead to a multitude of opportunities. This is especially true in regards to the knowledge of English, which is considered as a global language (Crystal, 2012). As noted by Shellekens (2011), English language proficiency enables people not only to find their way all around the globe, but also to increase their employability and access to information. This is because English is a dominant language in business, on the Internet, and in the popular media (Pennycook, 2017; Thurlow & Mroczek, 2011). For this reason, it is commonly argued that learning English language is a fundamental necessity for people all around the world (Wright, 2015). English will become the official language for many upper management in Japanese corporations (Daily Yomiuri Online, 2010). This, paired with the necessity to increase Japan's global competitiveness, has led the Japanese ministry of education to enhance its efforts in increasing English proficiency among Japanese students (Wilkinson, 2015). This establishes a need for novel approaches to

teaching English in Japan.

Recent advances in educational research have considered mobile learning or commonly referred to as m-learning, the use of electrical devices in the learning process as a potential solution to this problem. Mobile technology can be accessed anytime and anywhere (Kurniawan & Tanone, 2016). According to recent statistics, 96.6% of Japanese population owns at least one mobile device (Statistics Portal, 2017b).

As recognised by Gikas and Grant (2013), the first step in establishing the effectiveness of m-learning of English language is to consider students' attitudes towards this mode of learning delivery. However, existing research on the associated attitudes and perceptions of Japanese university students resulted in mixed findings, with some studies showing that students perceive m-learning as valuable in education (Thorton & Houser, 2015) and others reporting that students prefer to use computers for educational purposes (Stockwell, 2008). Moreover, a variety of barriers were revealed to reduce the use of mobile devices within Japanese classrooms, consisting of both psychological and technological barriers. As noted by Wang and Higgins (2006), psychological barriers may consist of students' perceptions of mobile devices as entertainment rather than educational tools and of the lack of students' self-directedness for using mobile devices in education. Technological barriers, on the other hand, may consist of mobile devices' harmfulness to the eyes, limited storage and memory, and reduced speed with which mobile devices can be used (Stockwell, 2008).

Since the introduction of smartphone devices, it was shown that even though Japanese students have adopted the smartphone technology, they are still not using it in education (White & Mills, 2012; 2015). This has established a need to assess students' perceptions of using smartphones within the EFL classroom. Moreover, several authors have advocated the necessity to investigate Japanese students' perceptions of the use of particular smartphone applications for learning English (Kurniawan & Tanone, 2016; White & Mills, 2015). Thus, in addition to assessing the perceived usability of smartphone devices in education, studies are advised to investigate students' perceptions of the usability of specific apps (Grinols & Rayesh, 2014; Kurniawan & Tanone, 2016).

Literature review

Introducing m-learning

In order to thoroughly introduce this research, it is initially necessary to review the relevant literature. To assist in the increase of students' English

language proficiency, researchers have long recognised the necessity to rely on innovative technological methods. The main reason for this is that university students report high levels of boredom when faced with traditional methods of learning, such as those involving the whiteboard and paper-and-pen exercises (Zhang, Zhao, Zhou, & Nunamaker, 2004). A necessity for innovative teaching methods is evident within the EFL classroom as well, because EFL students report reduced engagement levels (Yang, 2011). In order to introduce these students to innovative technologies, literature has initially assessed the effectiveness of different computer-based and Internet-based programmes for learning English. Such studies have revealed that computer-mediated technology is effective in engaging EFL students and in helping them to achieve their learning outcomes (Chan & Liou, 2005; Liu, Chen, & Chang, 2010; Ybarra & Green, 2003).

Since the introduction of mobile technology, researchers in the broader field of education delivery have started considering the possibility of delivering education via mobile phones, therefore developing the concept of m-learning. According to Crompton (2013), mobile learning or m-learning is defined as “learning across multiple contexts, through social and content interactions, using personal electronic devices” (p. 3). Such devices most commonly consist of mobile phones and tablet computers. M-learning was further perceived as potentially beneficial in education because it can be accessed anytime and anywhere (Bromley, 2012; Cavus & Ibrahim, 2009). It is also consistently noted that m-learning may be beneficial especially if it involves the applications of the principles of gamification (Kapp, 2012; Muntean, 2011), which are defined as the use of game elements within m-learning delivery (Flores, 2015). Moreover, due to the demonstrated effectiveness of both m-learning and gamification in safeguarding the learning outcomes on several subjects in higher education (for a review, see Evans, 2011), the literature has witnessed a growing interest in applying m-learning to studying English (White & Mills, 2012). This has resulted in a large number of studies addressing the effectiveness of m-learning in the ESL classroom, with studies showing that m-learning that ascribes to the principles of gamification can act as beneficial means for teaching students English vocabulary and grammar (Cavus & Ibrahim, 2009; Chen & Chung, 2008; Lu, 2008). However, studies also showed that m-learning is not positively accepted by students all around the globe (Ozdamli, 2015; Rossing, Miller, Cecil, & Stamper, 2012). This has resulted in an increased focus on testing students’ perceptions of m-learning (Norris, Hossain, & Soloway, 2015). Therefore, the following section focuses on describing the current state of the literature on English language m-learning in Japan.

Literature on m-learning in Japan

There have been several studies that focused on the use of mobile devices while learning English in Japan. Technology is moving at a rapid pace and overcoming issues or constraints of smartphone use in the classroom that were raised in previous studies. As is highlighted in Thornton and Houser (2005) two projects which focused on mobile device use by Japanese University students. The first of these projects was delivered via the now obsolete second-generation (i.e., 2G) mobile phones. As a part of this project, students received English vocabulary material via e-mails on their phone. The receiving of this material happened three times per day, for the purpose of enhancing regular interval study. After testing the effectiveness of this programme among 44 undergraduate students, Thornton and Houser (2005) concluded that the programme was positively perceived by students. However, the programme resulted in certain challenges as well because many students postponed reading their messages. In the authors' second project students received videos on their mobile devices. This programme was delivered via third-generation (i.e., 3G) mobile phones where students received videos that taught them English idioms. Thornton and Houser (2005) reported that this programme was also positively perceived within a sample of 51 participants, although some students complained that their screens were too small for watching the videos. The authors concluded that, even after accounting for relevant challenges, smart phones be successfully used to deliver English language learning material.

An additional study was conducted by Barr (2011) at Kanda University of International Studies to establish how mobile phones can be used for learning English in the classroom. By interviewing a total of 24 Japanese students, this author succeeded in extracting the information on how students use their mobile devices during learning. It was revealed that students display a tendency to (1) take pictures of the whiteboard in order to capture notes from class, (2) to record their professors in order to remember how certain words are pronounced, (3) to use Google voice recognition feature while practicing pronunciation, (4) to use mobile-based flashcard apps to practice their vocabulary, and (5) to find other relevant material that helps them in practicing their English reading skills. On the basis of this information, the author concluded that mobile devices can be beneficial while learning English.

In a further study by Anzai, Funada, and Akahori (2013), researchers focused on the effectiveness of a particular mobile-based activity that Barr (2011) has previously identified as being used by Japanese university students. This activity referred to mobile photo note-taking. Specifically, these authors have compared

the English language vocabulary retention between students who have photographed versus hand-wrote their class's notes. This study revealed no significant differences between groups in their vocabulary retention. Anzai et al. (2013) concluded that, despite significant group differences, smart phone note-taking allows students the ability to access their notes anytime and anywhere.

Students' perceptions and actual learning outcomes were assessed following their participation in three m-learning projects (Obari, Goda, Shimoyama, & Kinura, 2013). These projects were conducted at the Aoyama Gakuin University of Tokyo. The students were initially provided with video news on their mobile phones, after which they were required to prepare themselves to review the news during lecture. In the second project, students were provided with drill-and-practice exercises that helped them practice their English vocabulary and grammar. Finally, in the third project, students were provided with an app that taught them English vocabulary through a picture-word pairing procedure. The research by Obari et al. (2013) further showed that student performance in these projects was deemed as positive. Moreover, students had favourable perceptions of all three projects, therefore once again confirming the applicability of m-learning while learning English.

Benefits and challenges of m-learning

The recognised challenges of m-learning are commonly related to psychological and technological barriers. In relation to the former, Wang and Higgins (2006) note that university students tend to perceive their devices as entertainment tools rather than as educational tools. Due to the already-developed association between mobile devices and entertainment, students are argued to need to change their mindsets in order to use their devices in education (White & Mills, 2012). Similarly, Thurlow and Mroczek (2011) note that even if students are required to display the 'educational mindset' within the classroom, they may switch to the 'entertainment mindset' after the class, further discontinuing to use their device for learning. This idea was supported in the previously described study by Thornton and Houser (2005) where many students postponed reading their messages, even though they contained the necessary study material.

According to Wang and Higgins (2006), an additional challenge of m-learning is revealed that students prefer to study on their computers and laptops rather than on their mobile phones. Similar reports were obtained in other studies as well (Ozdamli & Uzenboylu, 2015; Rossing et al., 2012). As it seems, the fact that m-learning is accessible anytime and anywhere does not necessarily mean that students will select m-learning as their preferred mode of English delivery. Finally,

the last recognised psychological barrier to m-learning relates to the lack of students' self-directedness to initiate learning. As pointed out by White and Mills (2012), m-learning is a novel mode of teaching delivery and the majority of students already have well-developed habits for utilising computers while studying. Switching to m-learning requires students to change their learning habits and this, in turn, requires being self-directive. The idea that the lack of self-directedness may hamper the use of m-learning was also confirmed in a study with Japanese university students (Kondo, Ishikawa, Smith, Sakamoto, Shimomura, & Wada, 2012). In this study, EFL students' self-directedness was assessed during the period of two semesters. Students were using mobile devices for learning English only in the first semester. This study revealed that students' self-directedness has decreased from the first to the second semester. The authors attributed this finding to the removal of external motivators (e.g., grades and teachers' feedback) that would motivate students' willingness to self-initiate their m-learning.

Apart from the challenges of m-learning that arise from psychological barriers, literature recognises additional challenges that arise from technological limitations. According to Stockwell (2008), one such limitation occurs when students use mobile devices with small screens, which results in low resolution. Due to this low resolution, using mobile devices for a long time may impair students' sight. Moreover, mobile/smart phones may often be slower than computers, which may be particularly problematic when students need to use their mobile phones for typing in English (White & Mills, 2012). In support of this notion, the study by Stockwell (2010) has revealed that students took more time to complete English vocabulary exercises and did more mistakes when using mobile phone than when using a computer. Finally, mobile devices often have limited storage and memory, which reduces their capacity to hold large banks of educational material (Rossing et al., 2012).

In their review of associated challenges of m-learning, White and Mills (2012) went a step further and identified an additional type of challenge, relating to those experienced by English teachers. They argued that teachers perceive mobile devices as disrupting the class, especially if students use the devices for personal rather than educational purposes such as sending text messages, emails, or use the mobile chat functions. This may disrupt the class by directing students' attention away from the lecture. As further noted by White and Mills (2012), teachers may experience a difficulty in ensuring that materials used during m-learning will be compatible with a wide variety of students' devices. The fact that students have different devices may additionally result in an inability to provide all students with technical support.

When discussing the literature on the benefits and challenges of using m-learning while studying English, there is an gap in the literature because technology improves rapidly, and the majority of previously-revealed technical limitations have been reduced or eliminated now. The newest generation of smartphones now have better screens, increased memory capacities, and faster processing abilities than did mobile phones in 2006, when Wang and Higgins (2006) assessed the technological barriers to m-learning. Similarly, University students have now overcome at least some of the previously recognised psychological barriers to m-learning. Smartphones are currently used for a wider variety of purposes than they were used at the time of Wang and Higgins's (2006) research. The latest analyses reveal that, at present times, smartphones are not used solely for entertainment purposes (Tsetsi & Rains, 2017). For these reasons, it is necessary to reassess students' attitudes towards m-learning in today's technological environment.

Present study

This study focused primarily on two smartphone applications Kahoot and Quizlet. In Quizlet, an online flashcards application, the teacher English word lists on the basis of what was taught in the classroom. Students were presented with English and Japanese translations of words, together with a photo that aided their memorization and the added Quizlet live a group based smart phone game using this vocabulary. Figure 1 shows what the students see on there devices whilst playing the Quizlet live game, all students are given an answer but they have to decide together who has the correct one, with the right picture showing the main score board screen enabling that sense of competition with the other teams.

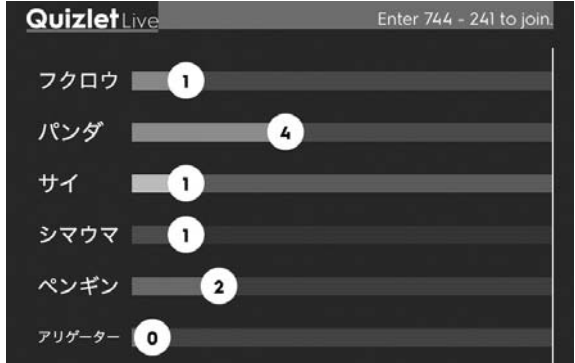


Figure 1. Quizlet live group game

Students in this study used the Kahoot! smartphone game individually. They were presented with questions that assessed their ability to identify correct and incorrect sentences on the main screen in the classroom and to choose odd word or sentence out. Figure 2 shows a student smart phone screen shot whilst using Kahoot! and the right shows the question that is projected onto the classroom screen.

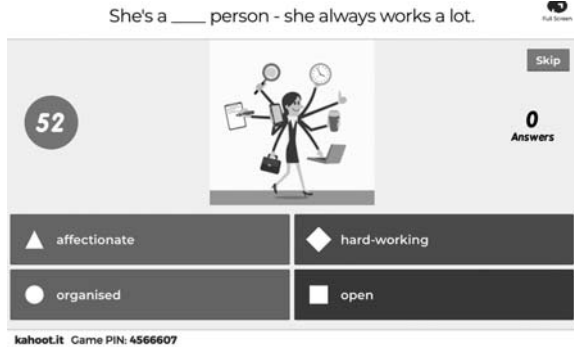
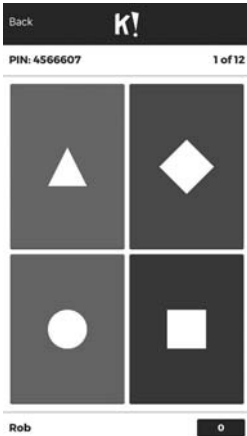


Figure 2. Kahoot

Method

Participants

Participants in this study consisted of a total of 101 students from Fukuoka Jo Gakuin University in Japan. They were all first year students who took part in an obligatory English programme at this female university. They have all agreed to participate in the research, thus confirming that their data can be used for further analyses.

Design and data analysis

This study has employed a quantitative methodology. As recognised by Neuman (2002), quantitative research is employed when the goal is to quantify people's perceptions and attitudes through the use of numbers. Exploratory research, on the other hand, aims to summarise the main features of a given dataset, without engaging in confirmatory analyses (Jeager & Halliday, 2009). The choice was to rely on exploratory quantitative methodology, because the study aimed to describe participants' perceptions of using smartphones and particular applications while learning English. Such perceptions were assessed through using a questionnaire, which has resulted in numerical data. The main benefit is that this approach allows the generalisation of findings to the broader population of Japanese undergraduate students (Creswell & Clark, 2006).

Materials

The data was obtained through administering an online questionnaire, which was completed on smartphones. The questionnaire had a total of 35 items. Initially, participants indicated whether they own a smartphone and a tablet computer. Following this, a total of 19 questions focused on participants' perceptions of using smartphones while learning English. All questions were rated on a scale ranging from 1 (strongly agree) to 5 (strongly disagree). Students' attitudes and perceived benefits of using smartphones were assessed by different groups of items. Attitudes towards using smartphones for learning English were assessed by 5 items, focusing on participants' comfort with, the enjoyment of, and a future interest in using smartphones. The perceived benefits of using these devices were assessed by 10 items, where participants reported the degree to which the use of smartphones made the course more interesting, increased their confidence, improved their motivation, enhanced their out-of-class learning, aided the English-Japanese translation, and improved their writing, reading, speaking, and listening skills. Four additional items focused on the use of smartphones while studying

English, where participants reported the degree to which they use such devices for the purposes of taking pictures of the whiteboard, recording class notes, listening to music in English, and learning English outside of classroom.

Additional 12 items inquired about participants' perceptions of Quizlet and Kahoot applications. Here, 5 items assessed attitudes towards these apps by asking students to rate the degree to which they liked using the apps, liked playing the group game, felt pressure during games, perceived the apps as enjoyable, and wanted to use the apps in the future. Four items measured the perceived benefits of the apps for learning vocabulary, learning English, and remembering the language. Finally, the use of particular apps was assessed by asking questions regarding students' out-of-class use of the apps and their use of other relevant apps. Finally, for the purpose of obtaining more thorough answers, participants were provided with several open-ended questions throughout the questionnaire.

Procedure

The questionnaire was made and administered via Survey Monkey, an online survey producing software. All participants were introduced to the research before being provided with an online link to the questionnaire. Once they entered the survey, participants indicated their smartphones and tablet use. They then answered the questions relating to the perceptions of using smartphones in the classroom, which were followed by questions about their perceptions of the Quizlet and Kahoot apps.

Results

Smartphone and tablet ownership

In this research, all participants (100%) indicated owning a smartphone. A total of 51 (50.5%) participants reported owning a tablet, whereas 50 (49.5%) reported not owning a tablet. These results are summarised on Figures 3 and 4.

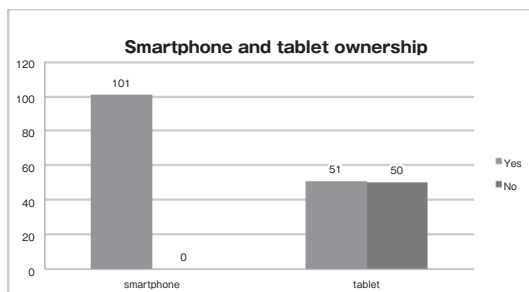


Figure 3. Smartphone and tablet ownership

Students' perceptions of using smartphones while learning English

The first goal of this research was to assess students' perceptions regarding the use of smartphones while learning English. This aim was achieved by focusing on three objectives: (1) to assess students' attitudes towards using smartphones in the classroom, (2) to assess perceived benefits of using smartphones for leaning English, and (3) to assess the use of smartphones while learning English. The results are presented for each of these objectives separately.

Attitudes towards using smartphones while learning English

Students' attitudes towards using smartphones in the classroom were assessed by 5 items, all of which were rated on a 1 (strongly agree) to 5 (strongly disagree) scale. Table 1 summarizes descriptive statistics for these items. Lower mean scores on this table indicate a higher degree of agreement with particular items' statements. Following this table, the results are described for each item separately.

Table 1. Descriptive statistics for items assessing attitudes towards using smartphones in class

| Attitudes | Mean(M) | Standard Deviation (SD) |
|--|---------|-------------------------|
| Willingness to use smartphones | 2.28 | .90 |
| Comfort with using smartphones | 2.16 | .92 |
| Enjoyment of using smartphones | 2.02 | .89 |
| Looking forward to use smartphones in the future | 1.99 | .87 |
| Interest in doing more lessons with smartphones | 2.62 | 1.03 |

When assessing the willingness to use smartphones for studying English, the

mean rating on this item was 2.28 (SD = .90), therefore showing that students expressed a moderately high willingness. As it can be seen on Figure 4, the majority of participants 16% strongly agree and 51.49% indicated that they agree with this item's statement.

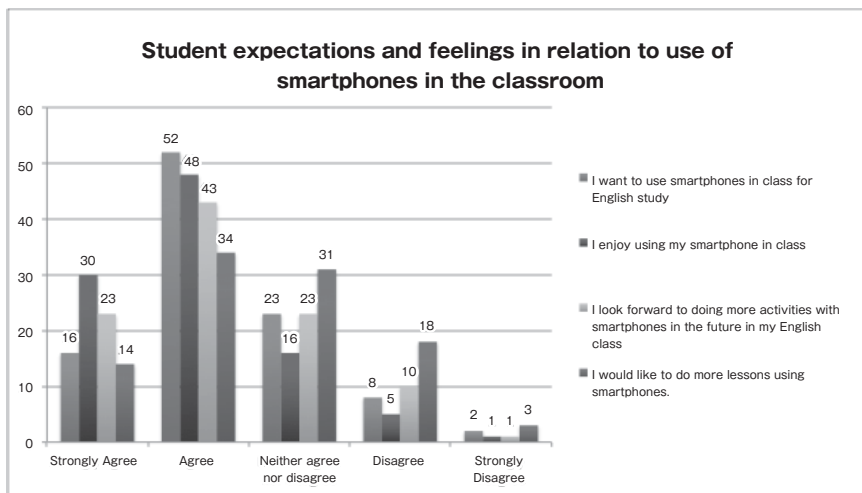


Figure 4. Willingness to use smartphones in class for studying English and expectations

Moreover, participants felt comfortable and enjoyed using smartphones in the classroom to a high degree. Students were also asked to indicate the degree to which they enjoy using smartphones for studying English. The mean rating on this item was 2.02 (SD = .89), thus revealing high levels of enjoyment to thus revealing a range of enjoyment. Looking at frequencies answers, Figure 4 shows that the highest percentage of participants (48.0%) agreed to this item's statement.

Students also looked forward to use smartphones within the classroom in the future to a high degree (M = 1.99, SD = .87). As it can be as seen on Figure 4, the majority of students (43.0%) agreed with this item's statement.

Finally, when assessing attitudes towards smartphone use, students were also questioned regarding their interest in doing more lessons with the use of smartphones. The mean rating on this item was 2.62 (SD =1.03), which reveals that their interest was in-between high and moderate to The SD is showing you that there is quite a range of interest. Figure 7 shows that the highest percentage of students (34.0%) agreed with this item's statement, although a similar percentage of students (31.0%) provided neutral answers. On this item, participants were also

asked to indicate why (or why not) they would like to do more lessons using smartphones. Here, positive comments revealed that participants want more lessons with smartphones because smartphones make the lesson more fun and enjoyable. Smartphones were noted to make the time pass more quickly, to make students like learning English, and to reduce the distance between students and teachers. Importantly, students indicated that using smartphones in the class improves their knowledge. One participant said: “Compared to studying with pen and paper, it feels like I can memorise the language almost double the speed”. In relation to the explanations of why some students do not want to do more lessons using smartphones, students noted the problems with the Wi-Fi connection and some noted being afraid of developing a smartphone addiction. Additionally, one participant said: “I want to make communication directly rather than using a smartphone”. These answers are summarised in Table 2.

Table 2. Reasons why (and why not) students want to do more lessons using smartphones.

| Reasons for | Reasons against |
|--|---|
| Lessons become more fun and enjoyable | Issues with Wi-Fi connection |
| Time passes more quickly | Fear of developing smartphone addiction |
| Students start to like learning English | Preference for direct communication |
| Smartphones bring students and teachers closer | |
| Smartphones improve knowledge acquisition | |
| Smartphones make the memorisation faster | |

Perceived benefits of using smartphones while learning English

Additional 10 items focused on the perceived benefits of using smartphones while learning English. Table 3 shows descriptive statistics for these items, with lower score indicating the higher agreement with the item’s statements.

Table 3. Descriptive statistics for items assessing perceived benefits of using smartphones in class

| Perceived benefits | M | SD |
|--|----------|-----------|
| Class is more interesting | 2.02 | .89 |
| Increasing confidence in English | 2.88 | .94 |
| Encouraging out-of-class studying of English | 2.69 | .90 |
| Increasing motivation to study English | 2.58 | .95 |
| Improving English writing skills | 3.18 | .97 |
| Improving English reading skills | 2.88 | .92 |
| Improving English speaking skills | 3.15 | .93 |
| Improving English listening skills | 2.78 | 1.07 |
| Aiding English to Japanese translation | 1.65 | .80 |
| Understanding English | 2.96 | .90 |

Initially, participants were asked to rate the degree to which using smartphones makes the class more interesting. The mean rating here was 2.02 (SD = .89), when indicating the reasons for why smartphones make the class more interesting, participants noted that smartphones foster cooperation with other students, increase engagement during lesson, make students feel energized, reduce boredom in comparison to paper-and-pen exercises, make the lesson much more fun, and increase involvement through playing games. In relation to the negative comments, some students noted that smartphone exercises can be boring, that Wi-Fi issues reduce enjoyment, and that receiving calls on the phone reduces their in-class engagement. These results are summarised on Table 3.

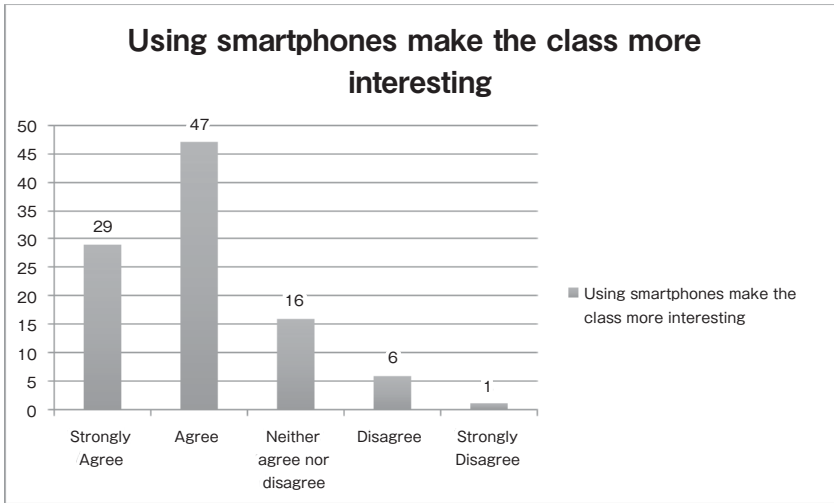


Figure 5. Benefit of class being more interesting

Table 4. Reasons why (and why not) smartphones make the class more interesting

| Reasons for | Reasons against |
|--|------------------------------------|
| Fostered cooperation with other students | Smartphone exercises can be boring |
| Increased engagement during lessons | Wi-Fi reduces enjoyment |
| Students feel energized | Receiving calls reduces engagement |
| Reduces boredom of paper-and-pen exercises | |
| Increased involvement through games | |

Students were further questioned regarding the degree to which using smartphones in class makes them feel more confident in English. The mean rating on this item was 2.88 (SD = .94), thus showing that smartphones increased confidence to a moderate degree. As seen on Figure 9, the majority of students (41.41%) noted that they neither agree nor disagree with this item’s statement.

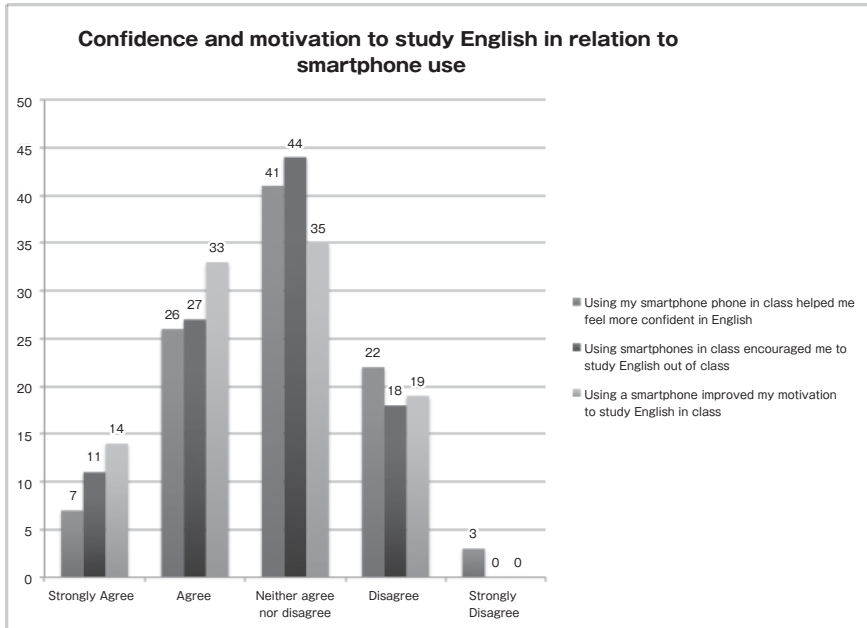


Figure 6. Confidence and motivation to study English in relation to smart phone use

Furthermore, students perceived smartphones as encouraging them to study English outside of class to a moderate degree ($M = 2.69$, $SD = .90$). On Figure 6, it can be seen that the majority of students (44.0%) neither agreed nor disagreed with this item's statement.

Another assessed perceived benefit relates to the degree to which smartphones improved students' motivation to study English. Here, the mean rating was 2.58 ($SD = .95$), therefore showing that smartphones improved motivation to a moderate degree. As seen on Figure 6, the majority of students either agreed with this statement (32.67%) or neither agreed nor disagreed (34.65%). When asked how smartphones improve their motivation to study English, participants noted that their motivation is enhanced because using smartphones is fun, because they are familiar with smartphones and thus learning becomes easier, because they can compete with their classmates, because smartphones are more engaging than a textbook, and because learning through smartphones saves their time. These results are summarised on Table 5.

Table 5. The reasons why smartphone use improve motivation for studying English

Reasons why smartphones enhance motivation

- Using smartphones is fun
- Smartphones are familiar so learning is easier
- Smartphones allow competing with classmates
- Smartphones are more engaging than a textbook
- Learning through smartphones saves time

A range of improvement, some moderately high and some moderately low ($M = 3.18, SD = .97$). Accordingly, the majority of participants indicated that they either disagree (33.66%) or neither agree nor disagree (38.61%) with this item’s statement. When asked how smartphones improve their writing skills, some participants noted that apps help in learning vocabulary, practicing spelling, and getting introduced to new words. However, the majority of participants indicated that smartphone apps do not help in improving English writing skills because students are not asked to write down the words, which reduces their memorisation capacity. These results are summarised on Table 6.

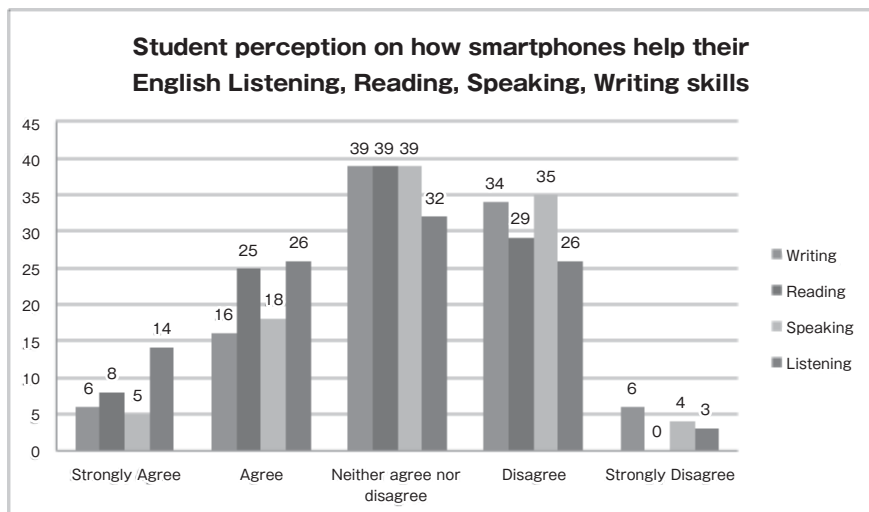


Figure 7. Student perception on how smart phones assist with English Listening, Reading, Speaking, Writing skills.

Table 6. Reasons why (and why not) smartphones improve English writing skills

| Reasons for | Reasons against |
|----------------------------------|--|
| Apps help in learning vocabulary | Apps do not require writing down the words |
| Apps help in practicing spelling | |
| Apps introduce many new words | |

Furthermore, participants' ratings revealed there is quite a range of reading skills development, some moderately high and some moderately low ($M = 2.88$, $SD = .92$). Similarly, frequencies of answers showed that the majority of students (38.61%) neither agreed nor disagreed with this item's statement (See Figure 7). When questions regarding the ways in which smartphones aid their English reading skills, participants noted that smartphones allow them to check the pronunciation of words via Google, to compete with their classmates on who is quicker at reading, to memorise words more easily, and to read faster than before. Participants did not identify any important reasons for why smartphones did not aid the improvement of their English reading skills. These results are summarised on Table 7.

Table 7. Reasons why (and why not) smartphones improve English reading skills

| Reasons for | Reasons against |
|---|------------------------|
| Opportunity to check word's pronunciation | None identified |
| Opportunity to compete with classmates | |
| Apps help memorise words more easily | |
| Apps help in reading faster than before | |

Participants further revealed that smartphones help them to improve their English speaking skills to a moderate degree ($M = 3.15$, $SD = .93$). Frequencies of answers showed that the majority of participants either disagreed with this item's statement (34.65%) or neither disagreed nor agreed (38.61%) (See Figure 7). Furthermore, participants said that smartphones aid their English speaking skills because they can talk with Siri and because smartphone help in practicing pronunciation. However, the majority of participants indicated that smartphone apps do not provide them with an opportunity to practice speaking (see Table 8).

Table 8. Reasons why (and why not) smartphones improve English speaking skills

| Reasons for | Reasons against |
|--|--|
| Smartphones allow talking to Siri | Smartphone apps provide no opportunity for practicing speaking |
| Smartphones help in practicing pronunciation | |

Smartphones were further perceived as enhancing students' English listening skills varying degrees ($M = 2.78$, $SD = 1.07$). The majority of participants either agreed (25.74%), disagreed (25.75), or neither agreed nor disagreed (31.68%) with this item's statement (See Figure 7). Analysis of participants' open-ended answers revealed that smartphones aid their listening skills because they can listen to music and radio broadcasts, watch videos, and listen to word's pronunciation - all of which aid their memorisation and understanding. No important reasons were provided for why smartphones are not aiding the development of English listening skills (see Table 9).

Table 9. Reasons why (and why not) smartphones improve English listening skills

| Reasons for | Reasons against |
|--|-----------------|
| Can listen to music and radio in English | None identified |
| Can watch videos in English | |
| Can check the pronunciation of words | |

Moreover, participants revealed that smartphones help them to translate words from English to Japanese.

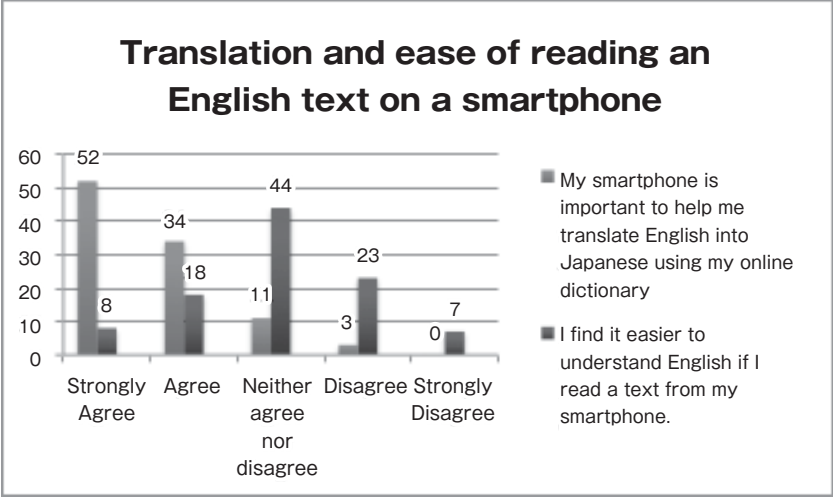


Figure 8. Benefit of translating from English to Japanese and ease of understanding text on a smart phone

Lastly, it was revealed that smartphones help students to understand English to a moderate degree ($M = 2.96$, $SD = .90$). Graph 6 shows that the majority of students (44.00%) neither agreed nor disagreed with this item's statement.

Use of smartphones while learning English

Final four items assessed the use of smartphones for learning English, while focusing on the use of smartphones for studying English, listening to music in English, taking photos of the whiteboard, and recording classwork. Descriptive statistics for these items are presented on Table 10.

Table 10. Descriptive statistics for items assessing the use of smartphones for learning English

| Uses | M | SD |
|-------------------------------|------|------|
| Studying English out-of-class | 3.00 | 1.44 |
| Listening to music in English | 2.17 | 1.33 |
| Taking photos of whiteboard | 2.79 | 1.27 |
| Recording classwork | 3.86 | 1.17 |

Results further showed that participants used smartphones for studying English out of class to a moderate degree ($M = 3.00$, $SD = 1.44$). Figure 9 reveals that the majority of students either strongly agreed (22.0%) or disagreed (27.0%) with this item's statement.

Students also indicated that they used smartphones for listening to music in English to a high degree ($M = 2.17$, $SD = 1.33$). As seen on Figure 9, the majority of students (45.0%) strongly agreed with and 20% agreed this item's statement.

In relation to taking photos of the whiteboard, students indicated that they engage in this activity to a moderate degree ($M = 2.79$, $SD = .27$). Figure 9 shows that the majority of students either agreed (24.75%) or neither agreed nor disagreed (25.74%) with this item's statement.

Finally, students preferred to record their classwork via smartphone than to hand write to a low degree ($M = 3.86$, $SD = 1.17$). Figure 10 shows that the majority of students either disagreed (31.68%) or strongly disagreed (36.63%) with this item's statement.

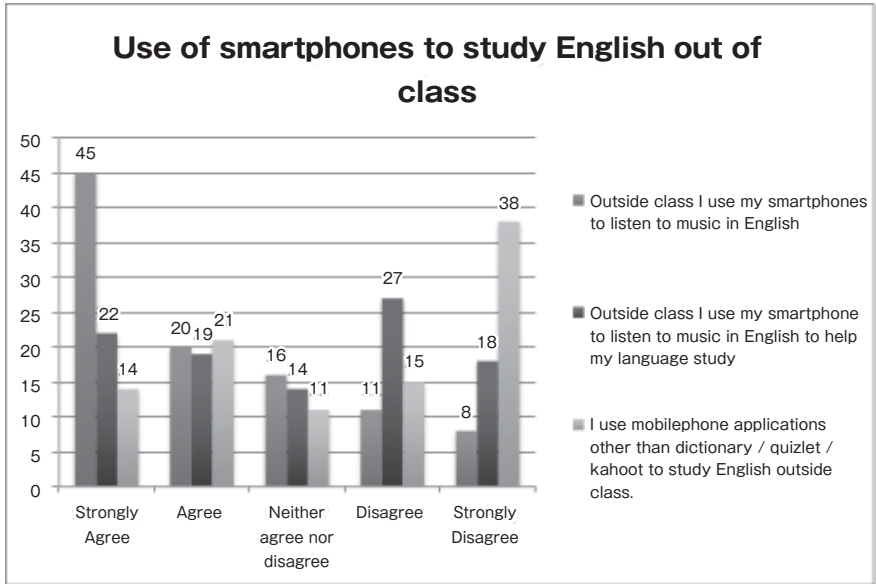


Figure 9. Using smartphones to study English out of class.

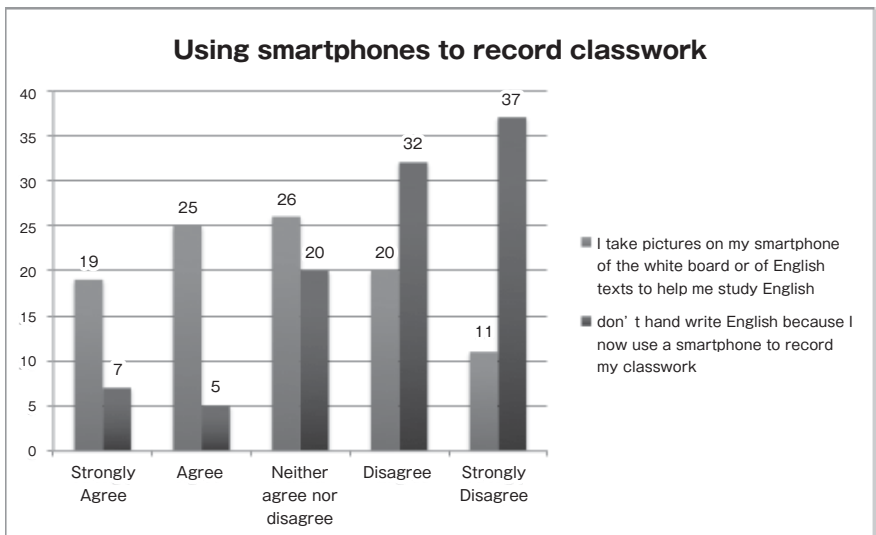


Figure 10. Using smartphones to record classwork

Students' perceptions of particular applications

The second goal of this research was to assess students' perceptions of the use of particular smartphone apps while learning English, including Quizlet and Kahoot apps. Results are presented separately for three themes, encompassing students' attitudes towards these apps, the perceived benefits of using these apps, and the actual use of these apps for learning English.

Attitudes towards particular applications

Students' attitudes towards using Quizlet were assessed by 4 items, and attitudes towards Kahoot were assessed by 2 items. Table 11 summarises descriptive statistics for these items, following which the results are described for each item separately.

Table 11. Descriptive statistics for attitudes towards Quizlet and Kahoot applications

| Attitudes | M | SD |
|--|----------|-----------|
| <i>Quizlet</i> | | |
| Liking of Quizlet's group game | 2.13 | 1.02 |
| Pressure felt when in a team of Quizlet live | 3.37 | 1.29 |
| Enjoyment of Quizlet | 2.03 | .88 |
| Willingness to use Quizlet in future | 2.08 | .86 |
| <i>Kahoot</i> | | |
| Enjoyment of Kahoot | 1.90 | .97 |
| Willingness to use Kahoot in future | 2.09 | .88 |

Initially, students reported that they like playing Quizlet's group game to a high degree ($M = 2.13$, $SD = 1.02$). Figure 11 shows that many of students (36.63%) agreed to this item's statement. When indicating reasons for why they did (or did not) like this group game, students indicated that the game builds relationships among students, is fun, improves motivation through competition, and helps in memorising vocabulary. In relation to the reasons why they did not like this game, students mentioned that the game uses a lot of battery, that they had problems with Wi-Fi, and that they disliked having to collaborate with students they do not like (see Table 12).

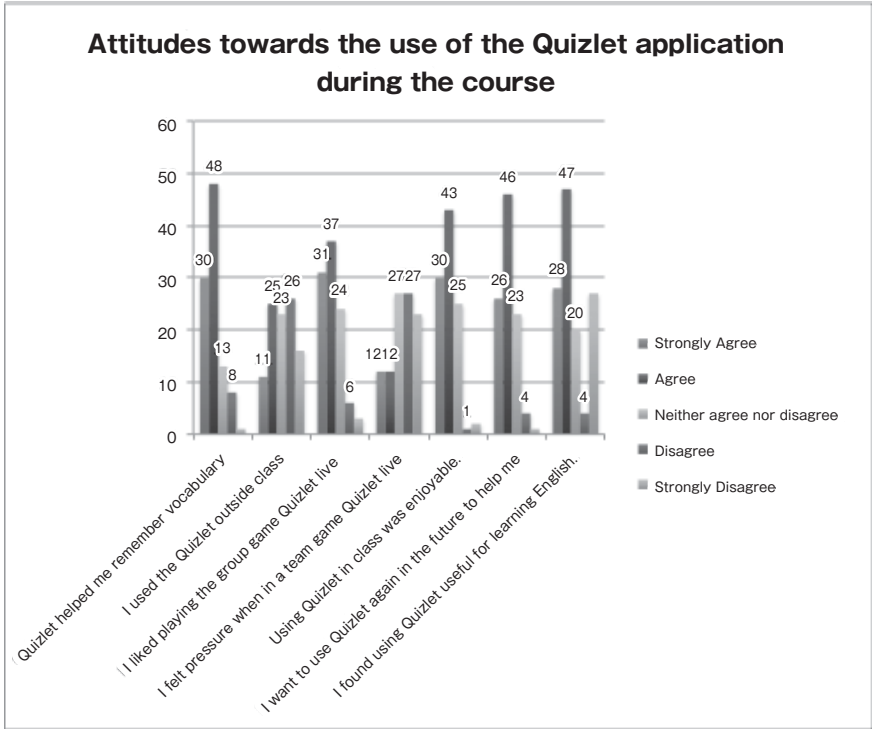


Figure 11. Attitudes towards Quizlet

Table 12. Student comments on the use of Quizlet live

| Reasons for | Reasons against |
|--|---|
| Game is fun | Game uses battery |
| Game helps build student relationships | Wi-Fi issues |
| Game improves motivation through competition | Game fosters collaboration with disliked students |
| Game aids memorisation of vocabulary | |

Participants further revealed that there was a range pressure when playing Quizlet live ($M = 3.37$, $SD = 1.29$).

Participants further reported that they enjoyed Quizlet to varying degrees. ($M = 2.03$, $SD = .88$). Highest percentage of students reported agreeing with this

item's statement (see Figure 11).

Moreover, they also reported high willingness to use Quizlet in the future ($M = 2.08, SD = .86$). As seen on Figure 11, the majority of students (46.0%) agreed with this item's statement.

In relation to Kahoot, many students noted that they enjoyed this app ($M = 1.90, SD = .97$). Accordingly, the majority of students strongly agreed (39.60%) or agreed (40.59%) with this item's statement (See Figure 12). When indicating reasons why they liked this app, students noted that they like quizzes, that Kahoot was fun, that they like competing with classmates, and that Kahoot helped them to learn vocabulary and to increase their motivation for studying English. Students did not enjoy Kahoot only because of Wi-Fi difficulties (see Table 13).

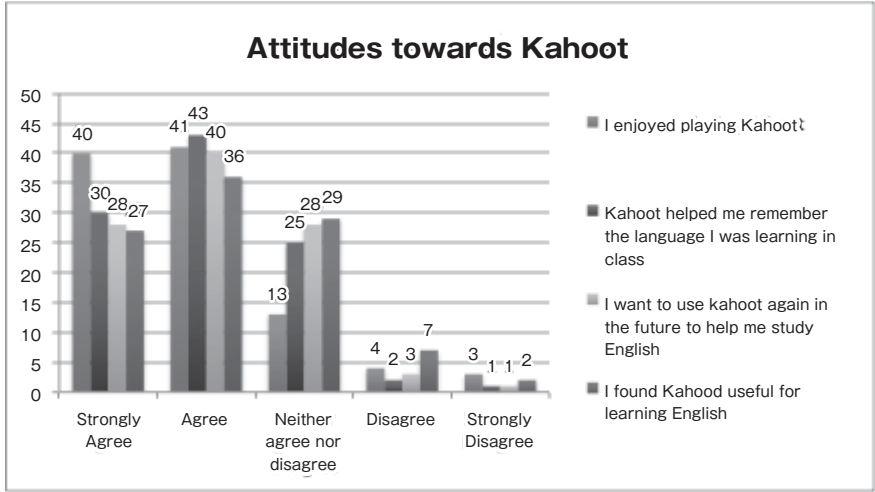


Figure 12. Attitudes towards Kahoot

Table 13. Reasons why (and why not) students enjoyed Kahoot.

| Reasons for | Reasons against |
|--|-----------------|
| Students like quizzes | Wi-Fi issues |
| Kahoot is fun | |
| Students like competing | |
| Kahoot helps in learning vocabulary | |
| Kahoot increases motivation for learning | |

Finally, there is quite a range of participants who indicated participants revealed that they would like to use Kahoot in the future ($M = 2.09$, $SD = .88$). The largest respondent group (40.0%) agreed with this item's statement (see Figure 12).

Perceived benefits of particular applications

The perceived benefits of Quizlet and Kahoot are presented on Table 14.

Table 14. Descriptive statistics for perceived benefits of Quizlet and Kahoot.

| Perceived benefits | M | SD |
|----------------------------------|------|------|
| <i>Quizlet</i> | | |
| Helped in remembering vocabulary | 2.02 | .92 |
| Was useful for learning English | 2.24 | 1.19 |
| <i>Kahoot</i> | | |
| Helped in remembering language | 2.02 | .85 |
| Was useful for learning English | 2.22 | .99 |

Initially, participants noted that Quizlet was helpful in remembering vocabulary to varying degrees ($M = 2.02$, $SD = .92$). The majority of students (48.0%) agreed with this item's statement (see Figure 12).

They also indicated that Quizlet was useful for learning English to a high degree ($M = 2.24$, $SD = 1.19$). Highest percentage of students (47.47%) agreed with this item's statement (see Figure 12). When answering open-ended questions, participants noted that Quizlet is useful because it helps in memorising vocabulary, because it is easy for studying, and because it can be used anywhere. In regards to negative comments, it was only noted that some Japanese translations were different from actual word meanings (see Table 15).

Table 15. Reasons why (and why not) students found Quizlet useful

| Reasons for | Reasons against |
|--|--|
| Quizlet helps in memorising vocabulary | Japanese translations sometimes different from word meanings |
| Quizlet is easy for studying | |
| Quizlet can be used everywhere | |

In relation to Kahoot, participants indicated the app was useful in helping them remember the language there is quite a range of helping to remember, some moderately high and some moderately low. ($M = 2.02$, $SD = .85$). Though as seen on Figure 12, the majority of students (42.57%) indicated that they agree with this item's statement.

Finally, participants indicated that Kahoot was useful for learning English a range of degrees ($M = 2.24$, $SD = 1.19$). The highest percentage of students (35.64%) agreed with this item's statement (see Figure 12). In relation to the additional comments about this app, students noted that that Kahoot benefited their learning because it is fun, because its game system makes studying more enjoyable, and because the app helps to improve one's vocabulary. Still, students noted that the issues with Wi-Fi reduced the usefulness of this app in class (see Table 16).

Table 16. Reasons why (and why not) students found Kahoot useful

| Reasons for | Reasons against |
|--|-----------------|
| Kahoot is fun | Wi-Fi issues |
| The game system makes studying enjoyable | |
| Kahoot improves vocabulary | |

Use of particular applications

Final two sets of items within the questionnaire focused on the assessment of the use of Quizlet outside of classroom and of the use of other mobile phone applications for studying English. Descriptive statistics for these two items are presented on Table 17. The results show that students used Quizlet out of class to varying degrees. ($M = 3.11$, $SD = 1.26$), though the majority of students either agreed (24.75%), disagreed (25.74%), or neither agreed nor disagreed (22.77%) with this item's statement. The SD is showing you that there is quite a range of other apps, some moderately high and some moderately low ($M = 3.39$, $SD =$

1.55). When indicating which apps they use apart from dictionary, Quizlet, and Kahoot, students noted using Target, YouTube, Mikan, Tango, HelloTalk, and KickTan.

Table 17. Descriptive statistics for the use of particular applications

| Uses | M | SD |
|---------------------------------------|------|------|
| Using Quizlet out of class | 3.11 | 1.26 |
| Using other apps for studying English | 3.39 | 1.55 |

Discussion

Despite the fact that the broader educational literature advocates the reliance on m-learning for studying English (Yang, 2011), it is consistently revealed that m-learning is not positively accepted by students from all around the globe (Ozdamli & Uzenboylu, 2015; Rossing et al., 2012). This has resulted in an increased focus on assessing students' attitudes towards m-learning in different countries. Moreover, there seems to be a need to re-assess Japanese students' perceptions on the topic, occurring due to several limitations in the existing literature. Specifically, most of the studies on Japanese EFL students' perceptions of m-learning have been conducted prior to the introduction and/or further development of smartphones (Thornton & Houser, 2005; Stockwell, 2008; Wang & Higgins, 2006; Zhag, 2008). Moreover, various authors have advocated the necessity to assess students' perceptions of particular applications for studying English, thus moving from the broad focus on the perceptions of m-learning (Kurniawan & Tanone, 2016; White & Mills, 2015).

This research had two aims. Initially to assess Japanese EFL students' perceptions regarding the use of smartphones in the classroom, by focusing on their attitudes towards smartphone use, the perceived benefits of smartphone use, and the actual use of smartphones for studying English. Secondly, to assess Japanese EFL students' perceptions of two particular apps for studying English, with these being the Quizlet and Kahoot apps.

Summary of results

When assessing Japanese students' attitudes towards using smartphones for studying English, this study revealed that some students are willing to use smartphones in the classroom, that some feel comfortable with using smartphones, that some enjoyed using smartphones, and that look forward to use smartphones in the future. These results are largely positive, therefore showing that many students

have favourable attitudes towards learning English with the use of smartphones. In general, many students thought that smartphones help them to enjoy the lesson, make the lesson pass more quickly, improve their knowledge and word memorisation, and reduce the distance between students and teachers. Moreover, some students reported that smartphones increase their liking of English study, which is a rather positive finding. However, some students also noted that issues with Wi-Fi and battery life reduce their engagement with smartphones, and some students were afraid of developing smartphone addiction. Importantly, some students also expressed a preference for direct communication while learning, which shows that m-learning may not be preferred by all students. These seem to be only barriers to m-learning that were recognised in current research, therefore showing that most of the barriers that were identified in past studies (Kondo et al., 2012; Stockwell, 2008; Wang & Higgins, 2006) have been overcome.

The perceived benefits of m-learning in the EFL classroom, some students were most likely to say that smartphones aid the word translation and that they make the class more interesting. However, some students thought that smartphones improve their actual language skills merely to a moderate degree. Thus, smartphones were recognised to increase confidence in English, enhance motivation for studying English, and to improve writing, reading, speaking, and listening skills in a range of degrees. This questions the actual usefulness of smartphones in helping students achieve their learning outcomes. A further analysis of students' open-ended answers showed that smartphones are a great tool for increasing some students' in-class participation, engagement, and enjoyment. This is because some students enjoy playing games and competing with their classmates, therefore confirming the idea that gamification is important during learning (Flores, 2015). However, whereas smartphones were perceived as useful for learning vocabulary and practicing spelling, they were perceived as less effective for improving writing and speaking skills. These findings show that smartphone use within the classroom should be targeted with care and used only when working on vocabulary and spelling, further being combined with alternative exercises for the development of other skills.

In relation to the actual use of smartphones for studying English, results revealed that although some students use smartphones to listen to music in English, which may aid their learning, they are less likely to use smartphones for studying English out of class, for taking photos of the whiteboard, and for recording their classwork. Once again, this points to the idea that smartphones are most useful for increasing the engagement in the classroom, whereas its other uses are perceived as merely somewhat desirable and effective.

Apart from having positive attitudes towards using smartphones while studying English in general, some students also had positive attitudes towards the use of Quizlet and Kahoot in particular. Thus, some students noted that they enjoyed both of these apps and that they would like to use these apps in the future. When indicating reasons behind these positive attitudes, some students noted that these apps are fun because they involve competition, help build relationships with students, and increase their motivation for learning. In relation to perceived benefits, some students thought that these apps help in learning vocabulary to a high degree, which is a rather positive finding. However, no other learning-related benefits were noted. Once again, this shows that apps such as Quizlet and Kahoot can be effectively used to enhance only some English language skills, while alternative methods should be used for building other skills. Finally, when it comes to the use of particular apps for studying English, some students revealed a reduced tendency to use particular apps out of class, which shows that these apps are best to be used within the classroom.

Strengths and limitations of the research

Like every study, this one also has certain strengths and limitations. When it comes to the strengths, it can be noted that the study had a sufficiently large sample to generalise the obtained findings to the broader population of Japanese EFL students (Creswell & Clark, 2006). Moreover, the study succeeded in overcoming the limitations of most existing literature, which was achieved through assessing the perceptions of m-learning of students who use the most recent versions of smartphones and through assessing the perceptions of particular smartphone apps for studying English. This study did not involve an objective measurement of the degree to which smartphones and particular applications aid students' English language learning. This was not the aim of this research, though such objective measurement would help in discerning whether apps such as Quizlet and Kahoot should be used within classroom to improve students' English language skills. Therefore, this could be a focus of future research.

Recommendations

Recommendations that have arisen due from this study are that smartphones should be used for increasing EFL students' engagement and involvement during lessons. This recommendation stems from the presently obtained finding that some students have rather positive attitudes towards using smartphones in the classroom, stemming from the fact that smartphones make the class more interesting and serve the purpose of increasing some students' involvement. However, the

applications of smartphones for increasing English language skills should be implemented with care. This present research showed that, according to some students' perceptions, smartphones and apps such as Quizlet and Kahoot are effective merely in building vocabulary and spelling skills. Some students were less likely to perceive these apps as beneficial for developing writing or speaking skills, which emphasises the necessity to rely on alternative methods when teaching skills of this kind. Therefore, the main implication here is that smartphones should be used within the EFL classroom only if they are combined with traditional methods for building specific English language skills.

Conclusion

The limitations of smart phone use in the classroom that were prevalent in previous studies (Thornton & Houser, 2005; Wang & Higgins, 2006; Zhag, 2008) seemed to have been overcome. Specifically, most of these studies have been conducted prior to the introduction and/or further development of smartphones. The past research has not concentrated on Japanese students' perceptions of particular apps for studying English and here by focusing on a sample of students who own the most recent smartphones models, and through focusing on the perceptions of particular apps for studying English, this research has revealed that some Japanese EFL students have positive attitudes towards using smartphones for studying English, as well as towards using apps such as Quizlet and Kahoot. In relation to the perceived benefits, smartphones and these particular apps were perceived as enhancing some students' in-class involvement and enjoyment, as well as the development of vocabulary and spelling skills. However, the apps were perceived as less effective for the building of other English language skills, which notes the necessity to combine smartphone use with the traditional learning methods in the EFL classroom. Finally, in order to advance the understanding of the applications of m-learning within the EFL classroom, future studies are advised to involve objective measurements of the degree to which smartphone apps, when compared to traditional learning methods, enhance the development of English language skills.

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Appendix A: The use of smartphones as an educational tool in the EFL classroom questionnaire

The use of smart phones as an educational tool in the EFL classroom.

The use of smart phones as an educational tool in the EFL classroom.
英語学習の授業におけるスマートフォンの教育ツールとしての

This is a questionnaire on then use of smart phones in the EFL classroom. The results will be used for my own personal research and to help others in the future. I would be grateful if you could answer the questions and give comments about your experience studying English with the use of smart phone this year.

これは英語の授業におけるスマートフォンの利用についてのアンケートです。このアンケート結果は私の研究に使用されます。今年度の英語の授業において、あなたのスマートフォン利用について答えていただきたいと思います。ご協力、よろしくお願ひします。アンケートへのご協力に感謝いたします。ロバート

1. I agree to take part in the class questionnaire and the use of the findings to be published. *Your name or any private details will be kept confidential.

私は授業でアンケートに回答すること、またその結果を学術研究に使用されることに同意します。(あなたの名前や個人情報は特定されません)

Yes
同意します

コメント欄がある質問についてはコメントを記載してください、あなたの意見や感じたことを教えてください。

コメントを記入した後、OKボタンを押してください。

アンケートの最期まで答えたら(質問35まで)、DONEを押してください。

Please write a comment if asked, we want to hear about your experiences.

Please press OK after a question with a comment box

At the end of the questionnaire make sure you press the DONE button.

2. Do you own a smartphone?

私はスマートフォンを持っています

- Yes はい
 No いいえ

For the students who answered No. What is the reason for not owning a smart phone?

いいえの場合、それはなぜですか？

3. Do you own a tablet?

私はタブレットを持っています

- Yes はい
 No いいえ

4. I want to use smart phones in class for English study.

私はスマートフォンをもっと英語の授業で使用したい

- Strongly Agree かなりそうだ
 Agree そうだ
 Neither agree nor disagree どちらでもない
 Disagree そうでもない
 Strongly Disagree 全く違う
 N/A I don't have a smart phone 私はスマートフォンを持っていません

5. I feel comfortable using smart phones in class.

スマートフォンを授業で使用するのは快適である

- Strongly Agree かなりそうだ
 Agree そうだ
 Neither agree nor disagree どちらでもない
 Strongly Disagree そうでもない
 N/A I don't have a smart phone 私はスマートフォンを持っていません

6. Using smart phones make the class more interesting. Why or why not?

スマートフォンを使用するほうが、授業が興味深く楽しくなる。はい、またはいいえの場合、それはなぜですか？

- Strongly Agree かなりそうだ
 Agree そうだ
 Neither agree nor disagree どちらでもない
 Disagree そうでもない
 Strongly Disagree 全く違う
 N/A I don't have a smart phone 私はスマートフォンを持っていません

Why or why not? Please comment.

はい、またはいいえの場合、コメントしてください

7. I enjoy using my smart phone in class.

私は教室でスマートフォンを使用するのが楽しい

- Strongly Agree かなりそうだ
 Agree そうだ
 Neither agree nor disagree どちらでもない
 Disagree そうでもない
 Strongly Disagree 全く違う
 N/A I don't have a smart phone 私はスマートフォンを持っていません

8. I look forward to doing more activities with smart phones in the future in my English class.

私は英語の授業でもっとスマートフォンを使用するようなレッスンが増えるのが楽しみである

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

9. Outside class I use my smart phone to listen to music in English.

私は授業以外で英語の音楽を聴くために、スマートフォンを使用している

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

10. Outside class I use my smart phone to listen music in English to help my language study.

私は授業以外で英語学習用の英語の音楽を聴くために、スマートフォンを使用している

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

11. Using my smart phone in class helped me feel more confident in English.

スマートフォンを授業で使用すると、英語に対して自信がついたように感じる

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

12. Using smart phones in class encouraged me to study English out of class.

スマートフォンを授業で使用すると、授業以外の時にも英語の勉強に勇気をもって取り組める

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

13. Using my smart phones improved my motivation to study English in class. How?

スマートフォンを使用することで、英語の勉強に対してやる気があがった。どのようにやる気が向上しましたか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

how?どのようにやる気が上がりましたか？

14. I would like to do more lessons using smart phones. Why or why not?

私はもっとスマートフォンでの授業を受けたい。何故ですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why or why not? Please comment.

はい、またはいいえの場合、コメントしてください

15. My smart phone helps my English writing skills.

Why? How?

スマートフォンは、私の英語を書く能力を上げた。何故ですか？どのようにですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why? How?

どうして、どのように書く能力が上がりましたか？コメントしてください

16. My smart phone helps my English reading skills. Why? How?

スマートフォンは、私の英語を読む能力を上げた。何故ですか？どのようにですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why? How?

どうして、どのように読む能力が上がりましたか？コメントしてください

17. My smart phone helps my English speaking skills. Why? How?

スマートフォンは、私の英語を話す能力を上げた。何故ですか？どのようにですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why? How?

どうして、どのように話す能力が上がりましたか？コメントしてください

18. My smart phone helps my English listening skills. Why? How? スマートフォンは、私の英語を聞く能力を上げた。何故ですか？どのようにですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why? How?

どうして、どのように聞く能力が上がりましたか？コメントしてください

19. My smart phone is important to help me translate English into Japanese using my online dictionary .

スマートフォンは英語を日本語に翻訳する場合、辞書のように使用しており、大変重要な物である

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

20. I don't need my smart phone to understand English.

私は英語を理解するのにスマートフォンは必要ではありません

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

21. I use mobile phone applications other than dictionary/quizlet/kahoot to study English outside class.

Which ones? 私はQuizlet, Kahoot以外の他のスマートフォンのアプリケーションを英語学習に使用しています。はいの場合はどのアプリケーションを使用していますか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

What other English study applications do you use?

はいの場合はどのアプリケーションを使用していますか？

22. I find it easier to understand English if I read a text from my smart phone.

私は英語の文章を読む場合、スマートフォンで読む方が理解しやすい。

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

23. I take pictures on my smart phone of the white board or of English texts to help me study English. If so why.

私はスマートフォンでホワイトボードや英語の文章の写真を撮って、英語の勉強の助けにしています。もし、そうなら何故ですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why?なぜ、そのように思いますか？コメントしてください。

24. I don't hand write English because I now use a smart phone to record my classwork.

私は手書きで英語を書いていません。なぜならスマートフォンで授業の内容を記録しているからです。

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

25. Quizlet helped me remember vocabulary.

Quizletは単語を覚えるのに役に立ちます

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

26. I used the Quizlet outside class.

私は授業以外ではQuizletを使用します

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | |

27. I liked playing the group game Quizlet live. why? why not?

私はグループゲームでQuizletをするのが好きです。なぜ好きですか？なぜ好きではないですか？

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

Why? Why not?

なぜ好きか、またはなぜ好きでないかコメントしてください

28. I felt pressure when in a team game Quizlet live.

私はグループでのQuizletのゲームをするのに、プレッシャーを感じます

- | | |
|--|--|
| <input type="radio"/> Strongly Agree かなりそうだ | <input type="radio"/> Disagree そうでもない |
| <input type="radio"/> Agree そうだ | <input type="radio"/> Strongly Disagree 全く違う |
| <input type="radio"/> Neither agree nor disagree どちらでもない | <input type="radio"/> N/A I don't have a smart phone 私はスマートフォンを持っていません |

29. Using Quizlet in class was enjoyable. Why?

授業でQuizletを楽しく使用できる。何故ですか？

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

Why? Why not?

なぜ楽しく使用できるか、またはなぜ楽しく使用できないかコメントしてください。

30. I want to use Quizlet again in the future to help me study English

私は英語学習の手助けとして、Quizletをまた使用したい

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

31. I found using Quizlet useful for learning English. If yes why? How? Anything you would like to say about Quizlet?

Quizletの使用は英語学習に有効である。何故ですか？あなたはQuizletについて何か意見・感想はありますか？

- Strongly Agree かなりそうだ
 Agree そうだ
 Disagree そうでもない
 Strongly Disagree 全く違う

あなたはQuizletについて何か意見・感想はありますか？

32. I enjoyed playing Kahoot. Why? Or why not?

私はKahootを楽しく使用できた。それは何故ですか？それは何故出来ませんでしたか？

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

Why? Or why not? Please comment.

どうして？何故なの？コメントしてください

33. Kahoot helped me remember the language I was learning in class? Why was this? Why not?

Kahootは授業で習った英語を覚えるのに役に立った。それは何故ですか？それは何故役に立たなかったのですか？

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

Why was this? Why not?

どうして？何故なの？コメントしてください

34. I want to use kahoot again in the future to help me study English. 私は英語学習の手助けとして、Kahootをまた使用したい

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

35. I found Kahoot useful for learning English. why? How? Anything you would like to say about Kahoot?

Kahootの使用は英語学習に有効である。何故ですか？あなたは Kahootについて何か意見・感想はありますか？

- Strongly Agree かなりそうだ Disagree そうでもない
 Agree そうだ Strongly Disagree 全く違う
 Neither agree nor disagree どちらでもない

Anything you would like to say about Kahoot?

あなたは Kahootについて何か意見・感想はありますか？

The use of smart phones as an educational tool in the EFL classroom.

Appendix B: English translation of comments that correspond to the survey.

English translation of comments that correspond to [The use of smart phones as an educational tool in the EFL classroom survey](#). These are the answers to the questions from the survey translated from Japanese given by students.

| Positive comments | participants | Negative comments | participants |
|--|--------------|---|--------------|
| Question 6: Using my smart phone improved my motivation to study English in class. How? | | | |
| We can co-operate with friends playing quizlet live and I can use my flashcards on a train | 1 | It depends on time | 1 |
| Can enjoy studying as it is like a game | 9 | My battery decreases during the game | 1 |
| It is fun | 7 | Wi-Fi speed is slow/it does not work | 4 |
| I can feel study is more familiar with a smart phone and feel comfortable | 5 | Can be boring | 1 |
| If we use smartphone and study with the book I have a clearer image of the grammar and vocabulary | 3 | Confusing if I received a call or mail during the game | 1 |
| Using smartphone study is easier | 3 | | |
| We can have competition, I like that | 1 | | |
| We can play with friend's in-group game | 1 | | |
| Lesson with game is easy learning and I enjoy the study | 1 | | |
| I enjoyed the smartphone in the classroom in the classroom as it is progressive | 1 | | |
| Much more interesting to use a phone rather than to write with pen & paper and listening | 5 | | |
| Because it is very easy to understand | 1 | | |
| Activates the class | 1 | | |
| It keeps me energized in class | 1 | | |
| studying using the big screen is understandable and speedy | 1 | | |
| It is enjoyable to speak and mix with other students during the cell phone game | 1 | | |
| Question 13: Motivation Using my smart phone improved my motivation to study English in class. How? | | | |
| I can search easily by using the internet | 1 | In fact my motivation didn't increase | 1 |
| I can listen to English language music | 1 | It did not improve my motivation, I just felt learning with a phone is more casual | 1 |
| I could have motivation to study outside class i.e. when I was on a train | 1 | It is ok | 1 |
| We don't need to write out sentence | 2 | It is fun, but unfortunately have to use own broadband | 1 |
| I always use a smart phone so it is fun and have more motivation than just with a paper textbook. | 1 | I don't think it improved my motivation | 1 |
| Enjoyable and want to do more | 1 | No change | 1 |
| I thought I wanted to study and I used my smart phone | 1 | | |
| I can learn make wear point or understanding at the time using her smart phone | 1 | | |
| Fun so I wanted to do more study and my motivation increased | 1 | | |
| I can check English online using my smartphone | 1 | | |
| I wanted to check more words and vocabulary after I had started using smartphones in class. | 1 | | |
| I enjoyed the quiz with my classmates | 1 | | |
| Listening to music is enjoyable, so I want to listen more | 1 | | |
| The cell is familiar so I like it and I have increased my motivation | 1 | | |
| Cell phone is familiar and use all the time so when I'm bored I use quiz let so this really helps me and encouraged me to use the YouTube mad social media to listen and gain further understanding. | 1 | | |
| I think I try to study English hard | 1 | | |
| It's fun | 1 | | |
| My motivation went up because I could compete against my classmates so wanted to study. | 1 | | |
| It was interesting | 1 | | |
| I thought I wanted to learn my vocabulary. | 1 | | |
| Easy to use | 1 | | |
| The completion side of the Quizlet live game encouraged me to study | 1 | | |
| I do this in my free time | 1 | | |
| I can study easily without dictionary anytime anywhere | 1 | | |
| Good for vocab study as colorful tool more interesting | 1 | | |
| I can stay awake with out sleeping | 1 | | |
| It is a shared learning with quizlet live as learn from each other | 1 | | |
| My motivation for joining the lesson is increasing | 1 | | |
| Easy because can save time and effort writing the cards at home help | 1 | | |
| Question 14: I would like to do more lessons with smart phones Why or why not? | | | |
| Fun | 14 | No, because of speed of Wi-Fi is slow | |
| In the future most lessons will use the internet | 1 | I am afraid that I will not be able to stop use my smart phone (phone addition) | 1 |
| I can improve my knowledge | 1 | Using smart phone makes my concentration wander because have other applications running. | 1 |
| The lesson by smart phone is more fun. | 1 | I am worried about I become addicted to using my phone | 1 |
| Using smart phone makes the time go quickly. | 1 | No Because Wi-Fi is slow in my university | 1 |
| It's fun and feels the lesson is more related to me, it reduces the sense of distance between the teacher and student | 1 | I want to make communication directly rather than using a smart phone. | 1 |
| It feels comfortable | 1 | I have to pay a lot for my Wi-Fi connection. | 1 |
| Compare with studying with a pen and paper it feels like I can memorize the language almost double the speed | 1 | It depends on the situation of Wi-Fi | 1 |
| Enjoyable | 1 | I don't have enough battery of my smart phone | 1 |
| It is more fun to use the smart phone and makes me like English | 1 | | |
| Connection speed | 1 | | |
| Am so happy to make communication with my classmates | 1 | | |
| Because I like using my smartphone. | 1 | | |
| I want to take a lesson by smartphone but Wi-Fi must be stable and also I want to save my battery more. | 1 | | |
| It's simple | 1 | | |
| I can memorize in English with fun | 1 | | |
| Using smart phones make lesson more active | 1 | | |
| My battery runs low soon | 1 | | |
| I can understand | 1 | | |
| Useful | 1 | | |
| Using smartphone is more familiar for me | 1 | | |
| I not bored when using smart phone | 1 | | |
| I don't have to write by hand so it's easier | 2 | | |
| Question 15: My smart phone helps my English writing skills. | | | |
| When I Google the vocabulary it appears automatically so can read it, write with correct spelling. | 1 | Not enough opportunity to write when using a smart phone | 1 |
| Helps because there are apps to help with vocabulary. | 1 | I do typing so don't feel my writing skills upgraded | 1 |
| I can check words. | 1 | I feel it's far from writing in English | 1 |
| The speed of my brain is increasing using smart phone. | 1 | It is just typing and predictive text. | 1 |
| Its fun so I can understand and memorize. | 1 | No because just pushing button | 1 |
| Because I could memorize a lot of vocabulary. | 1 | No because smart phone predictive text so it does not upgrade my writing. | 1 |
| I don't write so I don't think my writing skill increased. | 1 | Smartphones has predictive text so don't memorize spelling so does not help writing skill | 1 |
| Quizlet helped my understanding and accuracy. | 1 | No Because I don't write by hand | 1 |
| It is easier to understand words. | 1 | I don't feel it helps writing | 1 |
| Interesting. | 1 | Pushing is just typing so cannot memorize spelling | 1 |
| Applications asks the spelling | 1 | I don't write letters | 1 |
| Smartphone is just pushing the letter by button so don't feel my writing skill increase. | 1 | | |
| I can study easier while I have free time. | 1 | | |
| I can memorize vocab easily | 1 | | |
| Because I use of a lot of words. | 1 | | |
| This is the fill the gap style and can recall easily. | 1 | | |
| I can understand vocabulary more than before. | 2 | | |
| I don't write letters. | 1 | | |
| I like the translation function. | 1 | | |

Question 16. My smartphone helps my English reading skills.

I can copy and Google easily so Google what I don't understand
 I can read international articles easily
 I use English applications
 I can check words
 Reading by smartphone is easier
 It is fun
 It is easy to memorize
 I can listen the pronunciation
 I become to read English more
 I learned application of words
 I can listen pronunciation together
 I can learn with sound.
 I liked the completion against my classmates reading at speed in kahoot get higher score
 Interesting
 I can read easily when I am free
 Can check vocab and pronunciation together
 Just studying vocabulary so not focused on vocabulary, so not increase in reading skill
 Easy to study in free time
 I can read faster than before
 I can check to pronunciation by voice in quizlet
 I read a lot
 Its a flashcards system so can recall easily
 I understand the meaning of each vocabulary
 It is easy to understand pronunciation

I don't feel so
 My skills about vocab and my English knowledge upgrade though not my reading skill
 No change
 No opportunity to speak
 I don't speak so much using a smart phone
 I do not think smartphone does not relate to speaking
 We don't use smartphone for speaking so my skill does not go up.
 I don't feel my speaking skill upgraded whilst using smartphones in class

Question 17. My smart phone helps my English speaking skills

I talk with are
 No opportunity to speak
 I can check words
 It is fun
 Its easy to memorize
 I change my setting on siri from japanese to English
 I watched TV drama
 I could understand the pronunciation
 I can listen to music in English so listening and pronunciation skills
 I don't think my speaking goes up using a phone but doab up
 Interesting
 I can study when free
 I have confidence with pronunciation because quizlet has a voice on and can copy

I don't feel that
 I don't speak so much using a smart phone
 Don't have the opportunity to speak when using the smart phone
 Even if I remember the vocabulary it is difficult as don't study the grammar
 I want to speak with my friends

Question 18. My smart phone helps my English listening skills

I can listen to music so have more vocabulary to understand.
 I can listen to international radio
 I listen to radio in English
 I can listen to pronunciation on quizlet
 Can study easily because radio broadcast in English every time.
 I listen music a lot so understand some English words
 My ears become used to listening to English
 It is fun & easy to listen to English
 It is easy to listen.
 I can hear speaking
 I can listen to music more
 I watched TV/listened to music
 My ear has changed to listen pronunciation
 I have opportunity to listen to English by application
 I can listen anywhere/anytime
 I can listen to the vocabulary voice on quizlet
 I used this to listen in English
 I think my vocabulary skills have improved
 Interesting
 I can study in my free time
 It has a voice on quizlet so can study at the same time
 I can listen to English pronunciation
 Because I can play listen to the voice in quizlet

I don't have an opportunity to listen
 No change

Question 21. I use mobile phone applications other than dictionary/quizlet/kahoot to study English outside class. Which ones?

Target
 Tedxt
 Youtube/ smartness radio
 Ted
 kahoot
 milan
 tango
 study TOEIC
 English applications
 Studying & listening
 alc net academy (university in-house system)
 Dictionary
 Anahitic
 bella talk
 Study supply
 listening application
 Kick tan

I don't feel that
 I don't speak so much using a smart phone
 Don't have the opportunity to speak when using the smart phone
 Even if I remember the vocabulary it is difficult as don't study the grammar
 I want to speak with my friends

Question 23. I take pictures on my smart phone of the white board or of English texts to help me study

English. If so why
 when I don't understand I can check later
 It's easier than writing
 Important subject matter on white board
 I cannot catch up because of writing
 Easy
 If I write a memo with a pen I lose it
 I can memorize clearly
 I want to study again
 I like paperless
 Useful
 Because I always finish everything by smartphone
 I always have my smartphone with me
 I can check later
 I cannot keep up with writing

The board is not visible
 If I take picture I will not check again

Question 16. My smartphone helps my English reading skills.

| | | | |
|--|---|--|---|
| I can Google what I don't understand | 1 | I don't feel so | 1 |
| I can read international articles easily | 1 | My skills about vocab and my English knowledge upgrade though not my reading skill | 1 |
| I use English applications | 1 | No change | 1 |
| I can check words. | 1 | No opportunity to speak | 2 |
| Reading by smartphone is easier | 1 | I don't speak so much using a smart phone | 1 |
| It is fun | 1 | I do not think smartphone does not relate to speaking | 1 |
| It is easy to memorize | 1 | We don't use smartphone for speaking so my skill does not go up. | 1 |
| I can listen the pronunciation | 1 | I don't feel my speaking skill upgraded whilst using smartphones in class | 1 |
| I read English more | 1 | | |
| I learned application of words | 1 | | |
| I can listen pronunciation together | 1 | | |
| I can learn with sound. | 1 | | |
| I liked the completion against my classmates reading at speed in kahoot get higher score | 1 | | |
| Interesting | 1 | | |
| I can read easily when I am free | 1 | | |
| Can check vocab and pronunciation together | 1 | | |
| Just studying vocabulary so not focused on vocabulary, so not increase in reading skill | 1 | | |
| Easy to study in free time | 1 | | |
| I can read faster than before | 1 | | |
| I can check to pronunciation by voice in quizlet | 1 | | |
| I read a lot | 1 | | |
| Its a flashcards system so can recall easily | 1 | | |
| I understand the meaning of each vocabulary | 1 | | |
| It is easy to understand pronunciation | 1 | | |

Question 17. My smart phone helps my English speaking skills

| | | | |
|--|---|--|---|
| I talk with size | 1 | I don't feel that | 1 |
| No opportunity to speak | 1 | I don't speak so much using a smart phone | 1 |
| I can check words | 1 | Don't have the opportunity to speak when using the smart phone | 1 |
| It is fun | 1 | Even if I remember the vocabulary it is difficult as don't study the grammar | 1 |
| Its easy to memorize | 1 | I want to speak with my friends. | 1 |
| I change my setting on Siri from Japanese to English | 1 | | |
| I watched TV drama | 1 | | |
| I could understand the pronunciation | 1 | | |
| I can listen to music in English so listening and pronunciation skills | 1 | | |
| I don't think my speaking goes up using a phone but doab up | 1 | | |
| Interesting | 1 | | |
| I can study when free | 1 | | |
| I have confidence with pronunciation because Quizlet has a voice on and can copy | 1 | | |

Question 18. My smart phone helps my English listening skills

| | | | |
|---|---|---------------------------------------|---|
| I can listen to music so have more vocabulary to understand. | 1 | I don't have an opportunity to listen | 1 |
| I can listen to international radio | 1 | No change | 1 |
| I listen to the radio in English | 1 | | |
| I can listen to pronunciation on quizlet | 1 | | |
| Can study easily because radio broadcast in English every time. | 1 | | |
| I listen music a lot so understand some English words | 1 | | |
| My ears become used to listening to English | 1 | | |
| It is fun & easy to listen to English | 1 | | |
| It is easy to listen | 1 | | |
| I can hear English speakers | 1 | | |
| I can listen to music more | 1 | | |
| I watched TV/listened to music | 1 | | |
| My ear has changed to listen pronunciation | 1 | | |
| I have opportunity to listen to English by application | 6 | | |
| I can listen anywhere/anytime | 1 | | |
| I can listen to the vocabulary voice on Quizlet | 1 | | |
| I used this to listen in English | 1 | | |
| I think my vocabulary skills have improved | 2 | | |
| Interesting | 1 | | |
| I can study in my free time | 1 | | |
| It has a voice on quizlet so can study at the same time | 1 | | |
| I can listen to English pronunciation | 3 | | |
| Because I can play listen to the voice in Quizlet | 1 | | |

Question 21. I use mobile phone applications other than dictionary/quizlet/kahoot to study English outside class. Which ones?

| | |
|--|---|
| Target | 1 |
| Tedict | 1 |
| Youtube/ smartness radio | 1 |
| Ted | 1 |
| kahoot | 1 |
| mikan | 1 |
| tango | 1 |
| study TOEIC | 1 |
| English applications | 1 |
| Studying & listening | 1 |
| alc net academy (university in-house system) | 1 |
| Dictionary | 4 |
| Anallitic | 1 |
| hello talk | 1 |
| Study supply | 1 |
| listening application | 1 |
| Kick tan | 1 |

Question 23. I take pictures on my smart phone of the white board or of English texts to help me study English. If so why

| | | | |
|--|---|--|---|
| when I don't understand I can check later | 1 | The board is not visible | 1 |
| It's easier than writing | 1 | If I take picture I will not check again | 1 |
| Important subject matter on white board | 1 | | |
| I cannot catch up because of writing | 1 | | |
| Easy | 3 | | |
| If I write a memo with a pen I lose it | 1 | | |
| I can memorize clearly | 2 | | |
| I want to study again | 1 | | |
| I like paperless | 1 | | |
| Useful | 2 | | |
| Because I always finish everything by smartphone | 1 | | |
| I always have my smartphone with me | 4 | | |
| I can check later | 1 | | |
| I cannot keep up with writing | 1 | | |

| | | |
|---|----|---|
| Question 27. I Liked playing the group game Quizlet live. Why? Why not? | | |
| It makes a good relationship with other students | 1 | I dislike becoming teammate with classmates I don't like. |
| I enjoy winning | 1 | It uses a lot of my battery |
| I understand how much I understand | 1 | Wi-Fi is not so good |
| We can teach each other | 1 | |
| I can memorize easier with my classmate | 1 | |
| It is fun to cooperate with classmate | 1 | |
| I enjoy with my friend | 1 | |
| Fun | 20 | |
| My motivation improves with competition | 1 | |
| I don't like group game at due to my mental health I found it difficult to communicate with classmates | 1 | |
| It's fun and friendly with classmates | 1 | |
| It is enjoyable as can talk and learn with my friends | 1 | |
| Is interesting | 1 | |
| Increased vocabulary and was fun | 1 | |
| Its fun to cooperate with friends. | 1 | |
| Lots of communication with classmates | 1 | |
| I improved my motivation by competition | 2 | |
| It is fun to make communication | 1 | |
| I cannot speedy I I don't memorize completely | 1 | |
| I can enjoy game with classmates | 2 | |
| I can memorize vocab like game | 1 | |
| I can speak with students who I don't know so well | 1 | |
| I do this with students I don't really know | 2 | |
| I can speak with anybody | 1 | |
| The classroom feels like a party atmosphere | 1 | |
| Question 29: Using Quizlet in class was enjoyable. Why? | | |
| I memorize words | 1 | Wi-Fi is not stable |
| I can compete with others | 2 | Sometimes I am shy |
| I try hard not to lose game and like competition | 2 | |
| It is easy to understand as the pictures help | 1 | |
| I can do game with classmates | 1 | |
| The teacher is kind | 1 | |
| Fun | 13 | |
| The voice audio makes me understand | 1 | |
| We can play the game using words I have pre studied at home | 1 | |
| I can enjoy with my classmates | 1 | |
| I can study with fun | 1 | |
| We enjoy like a game | 1 | |
| Cutting edge technology | 1 | |
| I want to memorize vocabulary | 1 | |
| It is usual | 1 | |
| It is easy to understand | 1 | |
| There is an order | 1 | |
| I become a teammate with new people | 1 | |
| Can make conversation with classmates | 1 | |
| Question 31. I found using Quizlet useful for learning English | | |
| It was good | 1 | Wi-Fi an issue |
| I want to level up the textbook. | 1 | |
| Memorize vocabulary | 1 | |
| Easy to study with | 1 | |
| Sometimes the Japanese translation is different from the actual meaning | 1 | |
| I learned new vocabulary easily with flash cards | 4 | |
| I think the system should be changed to look at various meanings of each word | 1 | |
| Quizlet is easy to see clear visuals | 1 | |
| I learnt many English words | 1 | |
| Is best to remember vocab | 1 | |
| Vocabulary test every week | 1 | |
| I'm interested in English | 1 | |
| It is useful to remember vocabulary | 1 | |
| I can memorize vocab | 1 | |
| I can use anywhere | 1 | |
| Study easy when I am free | 1 | |
| Something I was familiar with as at high school I used paper version flash cards | 1 | |
| It is comfortable like a mobile notebook | 1 | |
| Question 32. I enjoyed playing kahoot | | |
| I like that it is a quiz | 1 | |
| Fun | 16 | |
| I can check new vocabulary by testing game | 1 | |
| Because I can complete | 1 | |
| I can understand my level where I am in my class | 1 | |
| Competition and have the time limit | 1 | |
| Because I can see the name of classmates on the screen | 2 | |
| I should answer fastest so can answer faster than before | 1 | |
| Interesting | 1 | |
| I could know the order as we played numerous times | 1 | |
| Like a game | 4 | |
| The game was repeated so I could study | 1 | |
| Motivation upgraded. | 1 | |
| I liked how it was presented | 1 | |
| This is speed based and I like that | 2 | |
| Order appears where my name is in the class | 1 | |
| My knowledge of grammar increased | 1 | |
| I can study and re study | 1 | |
| Question 33. Kahoot helped me remember the language in class? | | |
| I can study & understand because it is like a game | 2 | Bad connection Wi-Fi |
| I can memorize use full phrases | 1 | |
| I can study repeatedly as we played the games a few times | 1 | |
| I can study in a fun environment | 2 | |
| Quiz system | 1 | |
| It was fun | 10 | |
| My knowledge is increasing | 1 | |
| Because it is easy with pushing the screen | 1 | |
| Because I could learn and also enjoy the game | 5 | |
| Repeated the game so I could understand | 1 | |
| I can understand easily | 2 | |
| Many new words | 1 | |
| Grammar questions used | 1 | |
| Question 35.I found kahoot useful for learning English? Anything you would like to say about Kahoot? | | |
| Fun | 7 | |
| I enjoyed studying | 1 | |
| It is effective to study | 1 | |
| I can study repeatedly and it's like a test | 1 | |
| The game system more people enjoy | 1 | |
| I liked we could repeat the game and words from the class | 1 | |
| It is easy to understand the difficult words that most of the class don't know | 1 | |
| Because sometimes a grammar question, it helps | 1 | |