

The contributions of smartphone applications in supporting junior high school students' learning activities

Anggun Fitriana Dewi^{a,1,*}, Sumardi^{b,2}, Ngadiso^{c,3}

^{a,b,c} Universitas Sebelas Maret, Jl. Ir. Sutami No.36, Kentingan, Kec. Jebres, Kota Surakarta, Jawa Tengah 57126, Indonesia

¹ anggun.fidewi@gmail.com; ² arif_sumardi@yahoo.co.id; ³ ngadisodok@yahoo.com

* corresponding author

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ABSTRACT

In the last few decades, the development of mobile phone is rapidly growing and brings many changes in human life. Mobile phones nowadays extend their capabilities into all aspects in human life, including teaching and learning process. Therefore, this research aims at knowing what smartphone applications are frequently used by the students and investigating the contributions of those applications in students' learning activities. This research uses a qualitative case study in order to obtain a deep analysis. The subjects of this research are twenty students of junior high school in Kebumen who are chosen based on some criteria. Additionally, the data of this research were obtained using questionnaire and interview. Based on the finding, the smartphone applications which are most frequently used by the students to support their learning activities are social media (Instagram, Facebook, and Twitter), Google chrome, music player, offline dictionary, YouTube, and English exercise application from play store. Last but not least, all the students agree that smartphone applications give positive contributions to their learning process. The contributions of those applications in the students' learning activities are helping the students in finding more sources of authentic English materials; finding more exercise in grammar, reading, listening, speaking, and writing skills; improving students' vocabulary, grammar, listening, and speaking skill.



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1. Introduction

In the last few decades, the development of technology, especially mobile device is rapidly growing. It brings so many changes in human life. The producer of mobile devices always makes innovations from time to time and the biggest innovation which brings many changes is the connectivity to the internet. Internet, used to be accessed through personal computers, now can be accessed using mobile phones and this allows the mobile phone users, especially students, to online anytime and anywhere (Lenhart, 2015). By the connecting to the internet, mobile phones extend their capabilities into all areas of human life. Nowadays, people do not only use mobile phones for communication purposes, but also for shopping, gaming, banking, playing music, recording and playing videos, sharing photos and videos, teaching, and learning, so that it is called as smartphone.

It is very common for us now to see people everywhere always holding their smartphone and tapping it while they are lying in bed, walking, sitting, and standing.

In line with the development of mobile phones, mobile learning is undergoing rapid evolution since mobile phones provide many applications which enable to support students' learning activities, especially language learning activities. The emergence of Mobile Assisted Language Learning (MALL) in English language learning is the result of the increasing use of smartphones. It is an approach to language learning which is assisted or enhanced through the use of a handheld mobile device and potentially available anytime, anywhere (Kukulska-Hulme & Shield, 2008). However, the use of smartphones in language learning will not replace good teachers. It creates opportunities to provide supplementary English language practice anytime, anywhere (Zilber, 2013).

Students of high school nowadays, both junior high school and senior high school, are born as millennial or net generation. They have grown up surrounded by digital technology since birth and that has influenced how they live, work, play and learn (Grant and Barbour, 2013). Therefore, it is not a surprise if in language learning, students ask their smartphones more often than their teacher. It needs a great skill to use smartphones in language learning in order for such technology to be used properly and effectively (Billaca, 2016). There are a great number of studies which try to reveal how smartphones support students' languages learning but mostly the studies were conducted in higher education. For example, a study conducted by Soleimani, Ismail, and Mustaffa (2014), which subjects were 25 postgraduate ESL students indicates that MALL can enhance learner's English by providing them with the opportunity to access various useful materials, to carry out different activities in English, and to communicate and interact with their friends and lecturer using English. Moreover, the study conducted by Bezircilioglu (2016) shows that the 60 learners of a language Institute in Turkey use mobile phones to learn vocabulary through music, social media, and game and for translation. Then, a study conducted by Yudhiantara & Nasir (2017) reveals that the college students in Bandung have positive perception toward the use of mobile phones in the classroom to support their learning activities such as using offline dictionaries, operating PDF readers, playing audio files, and recording their video projects. Additionally, a research conducted by Puspa (2018), which were taken among 100 bachelor degree students of English Program in STPA Bandung shows that there is a positive correlation between the frequency of media social usage with the acquisition of English indicated by GPA.

There are still limited numbers of studies attempting to investigate the use of smartphone among junior high school students. Hence, conducting research on the contributions of smartphone applications in supporting junior high school students' English learning activities is needed. The research try to investigate the application mostly used by the students in learning English and in what way those applications support students' English learning activities.

1.1. Mobile Learning

The rapid growing of mobile device development brings many changes in all areas of human life, including in teaching and learning process. In line with the development of mobile phone, mobile learning is undergoing rapid evolution (Valarmathi, 2011). There are a lot of research conducted to find the right concept of mobile learning. In the past, experts tend to define mobile learning by the use of mobile technology in the learning process. Yet, in recent concept of mobile learning, experts emphasize on both the use of mobile technology and the mobility of the learning process which is learning may be done anytime, anywhere. As Sharpless (2006) pointed out that in the past, mobile learning is emphasized on the use of mobile technology in learning process, while more recent thinking has foregrounded the mobility of the learner. Then, Kukulska-Hulme and Shield (2008) define mobile learning as learning which is mediated via handheld devices and potentially available anytime, anywhere.

Considering the definitions before, mobile learning also refers to the use of mobile technology in the learning process which enables the learners to learn anytime, anywhere. The common mobile technology used in mobile learning includes mobile phones or smartphones, personal digital assistants (PDAs), tablet PCs, iPads and more. Yet, the study conducted by Pecherzewska and Knot (2007) confirms that mobile phones are the most frequently used devices in mobile learning.

Since mobile learning enables the students anytime, anywhere, it makes learning today beyond the classroom context. Learners can easily access language learning materials and communicate

with their teachers and peers from their home, café, market, or in the street. It is also possible for the learners to learn while they are playing, eating, sitting on the bus, or shopping. The advantage of being able to learn anytime, anywhere enables the teachers to manage the learning process in the classroom more effectively. Thornton and Houser (2016) explain that “in many educational institutions, the amount of class time is very limited”. It makes the learners are unable to get involved in most of the activities required by the process of language learning (Bezircilioglu, 2016). Therefore, the use of mobile devices is an alternative for the learners to get exposure of language learning materials and activities outside the classroom.

Mobile phone use in mobile learning has great benefits especially in vocabulary mastery, spelling and pronunciation, grammar, listening and reading skills (Bilaca, 2016). Mobile phones provide many applications for vocabulary, pronunciation, grammar, listening, reading, speaking, and writing exercises. There are a great number of studies which are investigating the advantages of application in the mobile phone. Hamad (2017) investigate the advantages of using WhatsApp application. It shows that WhatsApp helped the students to develop English skills and enrich their vocabulary. Then, Bezircilioglu (2016) found the learners use offline and online dictionary applications to help them learn the meaning of English words. They also learned vocabulary from music, social media, and games outside the classroom.

2. Research Method

This study uses qualitative case study which attempts to investigate profoundly on how smartphone applications help students' learning activities. The subjects of the study were 20 students of junior high school who have used smartphone applications to support their English learning activities. The data of the study were gathered using close-ended questionnaires and interviews. The questionnaire was used to know what smartphone application used by the students in order to support their English learning activities. While the interview was done to reveal in what way the applications support the students' English learning activities. Then, the data were analyzed using an interactive model proposed by Miles and Huberman (1984) consisting of three steps: data reduction, data display, drawing conclusion.

3. Findings and Discussion

Table 1 below shows the results of the close-ended questionnaire which was spread to 20 students of junior high school.

Table 1. The results of close-ended questionnaire

| Questions | Percentage | |
|---|------------|------|
| | Yes | No |
| 1. Do you often use smartphones to help you in learning English? | 100 % | 0% |
| 2. What smartphone applications do you usually use in learning English? | | |
| Web Browser | 30% | 70% |
| Google Chrome | 95% | 5% |
| Online dictionary | 35% | 65% |
| Offline dictionary | 85% | 15% |
| Whatsapp | 55% | 45% |
| Short Message Service (SMS) | 0% | 100% |
| Game | 75% | 25% |
| Social Media | 100% | 0% |
| YouTube | 85% | 15% |
| Video Player | 20% | 80% |
| Music Player | 90% | 10% |
| Email | 0% | 100% |

| | | | |
|-----|--|------|------|
| | Downloaded English Exercise Application | 85% | 15% |
| | Audio and video recorder | 65% | 35% |
| 3. | Do you usually use Whatsapp or SMS to discuss about English with your friend? | 55% | 45% |
| 4. | Do you often find new vocabularies when you're operating your social media applications? | 100% | 0% |
| 5. | When you find new vocabularies, do you often try to find the meaning through your online or offline dictionary? | 95% | 5% |
| 6. | Do you often find English materials or English exercise from your browser or Google chrome? | 95% | 5% |
| 7. | Do you often do listening, speaking, reading, and grammar exercise from your downloaded English Exercise Applications? | 85% | 15% |
| 8. | Do you often watch English videos or English movies from YouTube? | 85% | 15% |
| 9. | Do you often watch English videos or English movies from your Video Player application? | 20% | 80% |
| 10. | Do you often find new vocabularies when you're playing a game in your smartphone? | 75% | 25% |
| 11. | Do you ever use an audio and video recorder to record your speaking activity? | 65% | 35% |
| 12. | Do you often listen to English songs through your music player? | 90% | 10% |
| 13. | Does listening to English songs help you in learning vocabularies? | 90% | 10% |
| 14. | Do you often use your e-mail for English language learning purposes? | 0% | 100% |

Based on [Table 1](#), all the students use the smartphone in learning English often. Moreover, based on the interview result, all the students agree that smartphones bring positive effect in their English learning process because they can access it anytime, anywhere which makes learning English become easier. It is the important point of mobile learning. Mobile learning nowadays not only emphasizes on the use of mobile phones in learning process, but also the mobility of the learners who can learn English anytime and anywhere ([Sharpless, 2006](#)).

In terms of internet browser, 95% of the students prefer to use Google Chrome instead of Web Browser. Some of them use both Google Chrome and Web Browser to do browsing activity. Based on the interview, the students prefer to use Google Chrome because most of the students use Android as their smartphone Operating System which has been installed with all Google applications and some of them think that using Google Chrome is easier compared to Web Browser. In addition, based on Question number 6 and the interview results, the students use their Google Chrome to find supplementary materials and additional English exercise. Some of them admit that, if they do not understand teachers' explanations about certain materials, they prefer to find them through Google Chrome instead of asking the teacher.

Dictionary is one of the most important smartphone applications for students in learning English. From the table we can see that all students use a dictionary, most of them prefer to use offline dictionaries, while the less of the students prefer to use the online one. They claim that the dictionary is very helpful in learning vocabularies, especially for translating English word into Bahasa Indonesia. This is in line with the study conducted by [Bezircilioglu \(2016\)](#), the study shows that learners use mobile phones to learn new vocabulary and for translation.

WhatsApp and SMS are the messaging applications which enable the user the share not only a written text, but also pictures, videos, and audio. From the results of questionnaire and interview, most of the students prefer to use WhatsApp in sharing information among the students because it is easier to use and more interesting. However, in learning English students rarely use WhatsApp and never use SMS to learn English. Even though the students rarely use these applications in learning English, it does not mean that these applications are not helpful. [Hamad \(2017\)](#) found out that almost all his study-findings supported using WhatsApp to enhance students' learning and enthusiasm, using WhatsApp helped students to develop English skill, and enrich their vocabulary.

Then, the table shows us that 75% of the students are gamers, while 25 % of the students do not use games to support their English learning activities. Those who are gamers stated that game is an interesting application to learn vocabularies since most of the installed games are in English. They often found new vocabularies when they played the game and it forces them to find the meaning of the vocabulary in order to continue the game.

In terms of social media, all of the students agree that social media applications help them improve their vocabulary mastery. They claim that they often find new vocabularies from their idol in the social media since they follow the idols from foreign country. There are three social media applications which are often used by the students: Facebook, Instagram, and Twitter. There are many studies show the benefit of using social media application to engage students' enthusiasm and motivation. Kelly (2015) reveals that Instagram is an effective tool for developing learners' vocabulary range and grammatical accuracy. The learners also demonstrated positive attitude, learning communities, and learners' autonomy. Moreover, Puspa (2018) stated that there is a positive correlation between the frequency of social media usage with the acquisition of English and the most beneficial language ability is vocabulary mastery.

In watching English videos, 85% of the students prefer to use YouTube instead of video players. Based on the interview, it is revealed that if the students watch video through video player, they need extra space to save the video in their phone, while YouTube does not need more space when they want to watch the video. Moreover, YouTube provides many English videos so that the students can choose the video based on what they are interested in. The result of the interview also shows that YouTube helps the students in improving listening comprehension by watching English videos or movies. They can familiarize the pronunciation of English words. Some of the students also claim that YouTube provides them with the spoken materials of English which are useful to learn speaking. In line with the findings, a study conducted by Jalaluddin (2016) reveals that using YouTube inside and outside the classroom can be very useful in developing listening, speaking, and pronunciation skills.

The table above shows that 90% of the students often use music players to play some English songs. They all agree that listening to English songs can help them in improving their listening skill and also increase vocabulary mastery. The interview results indicate that the students often find new vocabularies when they are listening to English songs.

There are 85 % students who installed the English exercise applications provided in Play store. The exercises are varied including grammar exercises, listening skill exercises, speaking skill exercise, and national English examination exercises. The applications used by the students are: Hello English, Listening, *Belajar Bahasa Inggris*, *Ruang Guru*, *Jago Bahasa Inggris*, and Improve English. The students find that the applications provided by Play store help them by providing many exercises to upgrade their English skills.

The last, only 65 % of students have used audio and video recorders to record their speaking activities. Unfortunately, none of the students use email to help their English learning activity. By using e-mail, the students may improve their writing skill.

4. Conclusion

The results of the study can be concluded that the smartphone applications which are most frequently used by the students to support their learning activities are social media, Google chrome, music player, offline dictionary, YouTube, and English exercise application from play store. The social media applications help the learners to improve their vocabulary mastery, so does offline dictionary. Google Chrome provides the learners with authentic materials and English exercises, downloaded English Exercises application provides the learners with many exercises of all English skills too. Then, YouTube and music player help the students in improving listening skill by providing English spoken material which can propose the speaking skill autonomy.

In conclusion, those smartphone applications give positive contribution to the process of learning English for junior high school students. The contributions of those applications in the students' learning activities are helping the students in finding more sources of authentic English materials; finding more exercises in grammar, reading, listening, speaking, and writing skills; improving students' vocabulary, grammar, listening, and speaking skills.

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