

## **ANDROID BASED EDUCATIONAL GAME IN LEARNING AND TEACHING ENGLISH VOCABULARY: A LITERATURE REVIEW**

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### **Abstract**

Vocabulary learning is often perceived as boring by learners, especially for those who grew up in the digital era. The use of online games in vocabulary learning and teaching can be one solution to solve this problem. Android is the current world-famous software nowadays. It is believed to help teachers in delivering knowledge effectively and efficiently. Therefore, this paper aims to illustrate the effectiveness of Android-based educational games to enhance the ability of learners in learning English vocabulary. The discussion includes overview about vocabulary, games, ICT tools in EFL classroom, and the use of educational games from Android (App Inventor) can improve students' English competence in learning vocabulary. Therefore, this paper will be explained about the use of Android-based educational games as one of the fun alternative teaching innovations to support creative teachers and students. And hopefully it can be useful and meaningful reference and information for the reader about the use of android based educational game in learning and teaching English Vocabulary.

*Keywords: Android based educational game, vocabulary, ICT tool.*

### **1. Introduction**

Technology has a big impact on education recently. It not only provides various programs for educators but also offers effective ways to make the teaching and learning process more interesting. Bajcsy (2002) says that technology in teaching and learning as an enabler and suggests that technology can work to help organize and provide structure for material to students; help teachers, students, and parents interact anytime and anywhere; facilitate and assist in the authentication and prioritization of Internet material; and stimulate, visualize, and interact with specific structures, processes, and models. As the use of technology grow rapidly in education sector, many educators all over the world have used computers as media to facilitate their students' learning. They make some computer programs to encourage students to improve their motivation to learn. For example, using internet makes students more interested in joining the class. Moreover, they will not simply focus on explanations given by the teachers, so that they will have opportunities to learn independently.

The use of internet or technology is popularly referred to as Computer-Assisted Language Learning (CALL). It has been significantly used to follow the changes in teaching methodology and includes simulations and more interactive programs to reinforce the quality of learning languages. Warschauer (1996) states CALL is an approach to teaching and learning foreign

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language through which the computer and based resources such as internet are used to present, reinforce and assess material to be learned. Many studies worldwide have been conducted to explore the advantages of CALL on learning languages. Those advanced technological facilities may create high interactive learning activities that improve the skills of English: listening, speaking, reading, and writing. For educators and administrators, CALL is utilized to develop materials that can engage students in the classroom activities. Another kind of the use of internet can be more easily accessed through mobile devices called MALL (Mobile Assisted Language Learning) has come to its existence to provide independent and effective learning. According to Miangah & Nazarat, (2012) states MALL deals with the use of mobile technology in language learning. Besides that, Kukulska & Shield (2008) states MALL as an access to wireless device network that can communicate with such networks increase, the use of mobile devices in supporting language learning becomes more common. It can be considered an ideal solution to language learning barriers in term of time and place.

In other hand, Vocabulary is one aspect of languages to be taught to the students who want to learn English. Hedge (2000) says that vocabulary plays an important role and becomes one of the most important aspects in foreign language learning. From the vocabulary mastery, the students can develop their skill both receptively and productively. Furthermore, rich vocabulary can foster the students' comprehension and new words acquisition. In fact that teaching of vocabulary is something influential to the learners, teaching technique and media are expected to build their willingness to learn and create language exposure to apply. And then, one of the popular ways to engage learners in language learning is use games playing (Schultz & Fisher, 1988). According to Wood (2001) that investigated the use of learning games as learning tool and concluded that game-like formats could be more effective at capturing learners' attention than traditional media such as textbooks.

Based on the explanation above, in this paper I promote one of innovation in ICT tools through Android as the basis of use or creating game for educational purpose for learning and teaching vocabulary. Android is a mobile operating system (OS) currently developed by Google. It has become the popular OS for tablets and smart phones. Fortunately, it is also used on regular personal computers so the users can develop various applications easily. Therefore, it is a good idea to develop teacher potential in making materials or media by using technology, especially Android. Specifically, I would like to promote App Inventor from Android as a device to make vocabulary game in the related topic (For example: Animal). Description of animal can be presented in detail based on the students' need and competence. It also produces sound and other image effects.

Android becomes the writers' interest because of some motivation. Firstly, it is easily accessible for the users due to the fact that Android is the well-known software available in telecommunication market. Secondly, Android based educational game is something new to introduce in learners and also parents that complain on their kids' activities on their gadgets. However, after conducting this study, it is hoped that the learners' action on playing their gadgets is meaningful for their language learning exposure. Thirdly, it is free charge software so that the people especially language educators can create, develop, and spread application without considering license problems. The teachers can develop it as many as possible to fulfill the students' need in learning and teaching process.

## 2. Methods

This literature-review research examined relevant research articles published in reputable journals or conference proceedings in 2001-2020. The word 'reputable' referred to journals or conference proceedings that are nationally or internationally accredited.

This study analyzed about 20 research articles using thematic analysis. The articles were then identified about contributions, problems and pedagogical implications of Android Based Educational Game in Learning and Teaching English Vocabulary.

### 3. Result and Discussion

#### *Contribution of Android Based Educational Game In Learning And Teaching English Vocabulary*

Nowadays, the use of technology has become popular. This phenomenon gives big influence to assist the teaching and learning process. According to Brown's (2007: 200-201) there are some principles in using CALL based on ideas, namely, support the pedagogical goals, appropriateness, affirmed by students, accessible to all learners, effective and efficient use, and have back up plan. There are many applications in CALL, but in this study deals with the games. Games are used since it is fun and creates non-threatening atmosphere, so such activity is appropriate to interact the learners specially the young learners. The use of interactive games has impacted on the mode of teach (Foreman *et al.*, 2004). It is related to Deesri (2002) states that games could decrease the stress-level in addition to giving a chance for the real communication. The relaxed situation is believed to help the learners get the lesson easier and quicker. Prensky (2001) listed 12 elements as to why games engage people. To name a few, games motivate players (to achieve goals), gratify the ego (when winning), is fun (through enjoyment and pleasure) and spark the players' creativity (to solve the game).

There are many advantages of games based learning both for teachers and students. According to Padmavathi (2013) states that games in classroom setting encourage students' motivation, critical thinking, and engagement in learning. Basically, there are various types of games both offline and online. Offline or online games can be flexible to do and can be easily developed as much as possible based on student needs. However, as a creative and innovative English educator in Indonesia, teachers are required to be able to provide innovation in creating or finding the right and effective media to support the learning process and take part in ICT development, not just following the facilities instantly. Cahyani & Cahyono (2012: 142) pointed out the importance of ICT in language learning, they mentioned that to create engaging language instruction and success in language learning, technology is a prerequisite.

Teaching foreign languages to students is challenging for teachers because the characteristics of each student are very diverse and special, especially for young learners. One of the special things that students are easy to feel bored in following the process of teaching and learning in class. For example in elementary school, students are still developing their own mother tongue. In this situation, students' impression on the performance of English teachers is very important to improve their learning motivation. When they feel excited about English material, they can enjoy and focus on learning and teaching in the classroom. Novaliendry & Adriani (2020) in her study stated English language for children starts from introducing vocabulary that is closest to the child, the goals to make it easier for children to remember. One way to maximal comprehension by giving learning fun involves learning with the game.

On the other hand, when teachers cannot draw their attention in English teaching, their boredom will easily arise. In addition to introducing new knowledge, teachers should facilitate vocabulary learning by providing meaningful words to the students through appropriate strategies or methods that can accommodate the condition. According to Linse (2005) meaningful vocabulary means words used in high frequency. When they use words, listeners can get used to the words so they can create effective and efficient communication. Thus, the topic should also be common in everyday life with different lexical fields, such as colors, animals, days of the week, food, work, etc. It is also stated by Cameron (2001) that teaching vocabulary has a central stage in foreign language learning and can be a stepping stone for learning and using grammar. Then it can be concluded that

vocabulary mastery is very important for learners to improve their communication skill, especially in learning a foreign language.

#### *Problems of Android Based Educational Game In Learning And Teaching English Vocabulary*

There are some problems faced by students in learning English vocabulary in teaching and learning process. Such as the lack of vocabulary mastery of students, so that students are difficult to express ideas in English. And it will also affect the ability of students in the mastery of all language skills (reading, speaking, writing and listening). Besides, most of students have mobile devices, such as Android phones in their life style, so they will be familiar with several Android applications such as social media, games, and other application. However, the use of Android smartphones has not been used effectively to support their learning environment. They would rather use it for the social media rather than supporting the learning activity. Although there are various applications that can facilitate language learning, but the content of the applications materials provided in the play store do not meet with the learners' need.

Santosa, Pratama, & Putra (2020) in their research developed android-based English vocabulary learning materials for primary school students found that the primary school students need more time to learn English and emphasize more on vocabulary learning. The primary school students need smartphone application which provides vocabulary practice, test and entertainment about the topics learnt in the class and based on their result An effective use of the application with meaningful learning activities for vocabulary learning for young learners are strongly suggested.

#### *Research on Pedagogical Implication of Android Based Educational Game In Learning And Teaching English Vocabulary*

In conclusion, there is a great opportunity to use technology as a supporting media to lean English vocabulary for students. One of them is use App Inventory from Android as a device to make vocabulary game in the related topic. For example: Animal theme. Description of animal can be presented in detail based on the students' need and competence. It also produces sound and other image effects. Teachers encourage students through games and animal singing. The song is already installed in the Android-based educational game entitled ABCD song. After the teacher plays the song on the laptop once, the students are asked to sing together for 3 times. This song is chosen because it can train the correct alphabet pronunciation of students.

In addition to Android games, teachers try to make students focus by providing other simple games by giving three keywords. If the teacher says the tiger, the students have to say strong. If the teacher says snake, the students have to say long. If the teacher says elephant, students say big. To apply this, the teacher gives the first model, and then the students are randomly selected to answer the teacher's words. It is related to Suyanto (2007) states that songs and games make students happy. In the context of basic education, 'Fun' is important because one of the characteristics of young learners is easily bored. To maintain their enthusiasm, learning activities are expected to be designed as successfully as possible.

#### **4. Conclusion**

The use of technology has become an important point in the current teaching and learning process, and it positively assists teachers in delivering materials and motivating students to receive lessons more easily. It can also apply in the process of improving students' vocabulary mastery. One of innovation in ICT tools through Android as the base of creating game for educational purpose for learning and teaching vocabulary. Games can be one of the ways in enabling a fun learning process. And combine between games and technology in helping the learning process become one of the right choices.

The fun learning process is a top priority in teaching and learning activities. The use of technology can help teachers create many exciting experiences from different applications. It is important to remember that in order to build a new concept of language knowledge, the process of practice cannot be underestimated. The meaningful learning they gain will affect their long-term memory.

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