

Young Learners' Engagement in Vocabulary Learning Taught by Games and Learning Application: Systematic Review

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Abstract: Since the start of the twenty-first century, we have had access to a wide variety of new learning tools, including computers, mobile apps, and web-based resources that are used in English language classrooms. By that statement education need to adapt the technology by using it to make the student and teacher learning classes more effective. By that issue this research paper will be explaining what is the overall effect of the games and learning application across studies and what are the benefit from conducting their research. The findings from this research shown across different games and it can increase the student's overall vocabulary score and activity in the classes in comparison when they are not using game to teach vocabulary. This article also provides information about the benefit of games to the student's vocabulary skill. In conclusion from different cases of studies, all of the research proves that using games can increase vocabulary mastery.

Key words: Systematic analysis, young learners, vocabulary learning

INTRODUCTION

In this era of digital or the era of technology, from the beginning of the twenty first century, we have so many new learning devices, from computer, mobile app, and web-based tools are being used in English language classroom. Web-based tools to help the teacher to teach the students is called Computer Assisted Language Learning by Beatty (2013). According to Beatty (2013) that Computer Assisted Language Learning can improve their performance to teach the students. Another name for web-assisted from Cornillie (2012) called Digital Game Based Language Learning (DGBLL) which came out after Computer Assisted Language Learning.

DGBLL has been the subject of numerous research studies in recent years. Prensky, 2001; Gerhardt, 2008; Squire & Klopfer, 2008; Thorne et al., 2009 as cited in Alyaz & Genç, 2016 have all conducted studies on two distinct subfields of DGBLL, namely COTS (commercial off-the-shelf) adventure-entertainment games and educational games, or edutainment. Looking back at the DGBLL literature, it is clear that adventure-entertainment games have been the subject of the majority of studies. More research studies on edutainment games are required because the majority of research focuses on COTS games.

The use games and learning application is effective across a variety of vocabulary learning. Researchers use different application or web-based games such as; Worldwall, Esra Çil (2021). Baicizhan, Rui Li (2021). Quizlet, Waluyo and Bucol (2021). VocabGame, Elaish et al. (2019). In contrast to these encouraging trends, other studies found that gamification was unable to raise students' motivation or improve their learning performance (Barzilaia & Blau, 2014; Calvo-Ferrer, 2017). Furthermore, the utilization of gamified learning through mobile devices may also not be effective due to some potential pitfalls, which include users' preferences of their usage for personal and social rather than educational tools (Stockwell,

2010; Thornton & Houser, 2005), distraction to students' focus (Dahlstrom et al., 2015; Stockwell, 2008), and other constraints related to their affordance (Klímová, 2018 & 2019; Kukulska-Hulme & Shield, 2008; Stockwell, 2010).

In these reviews, the scope of investigation and analysis was covering all educational levels (e.g., elementary school to undergraduate) according to (Connolly's et al., 2012). Additionally, the effects of games on students' understanding of science have only been briefly examined in a small number of research studies (Li.,2013). Systematic review using Single Case Research (SCR) designs (Allison & Gorman, 1993). This may be due to the fact that suggested guidelines for high-quality SCR designs and proof of treatment effects have only recently been made public (Kratochwill et al., 2010). The purpose of this systematic review was to qualitatively analyze the SCR literature on the Vocabulary Learning using Games and Learning application. Then two main research questions were addressed; What is the overall effect of the Games and Learning application across studies? And What benefit do they perceive of its utilization?

Vocabulary Learning Using Games and Learning Application

Studies by Sanosi (2018) and Elaish et al. (2019), which found that DGBL through mobile phone apps was effective to help Arab EFL learners achieve better performance in learning English, even for those with low competence, provided additional support for the first study's positive effects on EFL vocabulary learning. According to Sanosi (2018), using Quizlet both in its online and mobile phone versions helped EFL students in higher education acquire more vocabulary. Elaish et al. (2019) used the mobile game VocabGame to find that, in addition to improving learning outcomes, mobile game-based learning significantly increased students' motivation and confidence.

A quantitative study was conducted by Wu and Huang (2017) to determine the efficacy of a mobile game-based English vocabulary practice system for enhancing vocabulary mastery in EFL adult learners. They found that mobile game-based learning significantly increased the students' vocabulary knowledge as well as their attention and interest after recruiting 94 Taiwanese university students enrolled in a basic English course as their participants. Wu (2018) tested a similar vocabulary-practice game on 32 students in a foundational English class at a Taiwanese university of science and technology. The results showed that the game's effectiveness in promoting students' motivation and participation in vocabulary learning.

In an entirely different a direction, Li et al. (2019) investigated the influences on vocabulary learning outcomes of factors attributed to the facilitative effects of digital games and learners' flow experiences. In a study involving 291 Chinese EFL learners who used the app Baicizhan daily for exam preparation, it was found that playability, a clear goal, and a balance between skill and challenge had a positive effect on concentration, while feedback had a positive impact on intrinsic motivation. Additionally, they noted that perceived learning is positively influenced by concentration, intrinsic motivation, and enjoyment, whereas satisfaction is positively impacted only by concentration and intrinsic motivation. It's interesting to note that satisfaction is positively impacted by perceived learning.

RESEARCH METHOD

In the current review, all studies that met the inclusion criteria were systematically analyzed to extend and refine, the potential about vocabulary learning, the researcher using

single case research with a few journals. The researcher sampled articles from Language Education and Technology journal (LET), Computer Assisted Language Learning Electronic Journal (CALL-EJ), International Journal of Education, Information Technology and Others (IJEIT). Articles were sampled in the following categories:

- The article must be discussing about the effect of games and learning application to increase young learner vocabulary skill.
- The researcher picks the latest articles, for this category the researcher sampled the recent published articles are from 2021

Data Collection and Data Analysis

Researcher have evaluated numerous procedural variations to improve vocabulary using games and learning application. The data will be from 3 sources of articles that are Language Education and Technology journal (LET), Computer Assisted Language Learning Electronic Journal (CALL-EJ), International Journal of Education, Information Technology and Others (IJEIT).

RESULTS AND DISCUSSION

Some researcher chooses to use Worldwall web-learning program, or Quiziz to improve students' vocabulary. In Budi and Junifer (2021) research from CALL-EJ journal found that learning using Quiziz to increase vocabulary learning have a significant increase for students understanding, from 500 words that students had to learn from the courses when students are implemented by using Quiziz, and the result in the form of statistic are for pre (mean = 10.34) and for posttest (mean = 13.11), as seen from the data that Budi and Junifer (2021) provides games can increase vocabulary learning outcome significantly. According to (Fithriani, 2021) the students felt that using Quizlet in this study as a gamified vocabulary learning tool improved their learning performance, demonstrating the viability of using mobile games for education.

Other studies on using game and learning application to increase vocabulary learning from Anisa and Arinal (2021) article from (IJEIT) using a learning application Duolingo. In this research, the researcher has an advantages and disadvantages of learning application such as Duolingo, from the disadvantages when the students did not have an internet connection, some of the sentences sometimes are odd and unusual, and for the advantage of Duolingo application are interactive, free and easy to access by students. By that advantages students have a positive perception of the use of Duilingo for learning process especially vocabulary, it could increase comfortable, joy, and motivate students' English skills (Anisa and Arinal 2021).

The use of Games and Learning application have many affects and benefits for students and teacher, from the aspect of technology and efficiency learning by using games and learning application can help the teacher to make a learning classroom more exiting and give more motivation to the students, that we know when students experience or doing something fun, they can learn and understand faster than the usual method. In the Language Education and Technology Journal (LET) shown that from experiment in their data there are significance data difference between the result and according to (Çil, 2021) The first one might be that the treatment only lasted for 3 weeks because there wasn't enough time to teach the vocabulary for the unit. Because of this, determining whether a teaching method was effective or not could not have been done in such a short period of time. The second explanation could be that the students in both groups had a strong desire to learn English and

continued their independent study outside of class by enrolling in evening or weekend English classes. The student's high pre-test scores and the fact that most students already knew some of the vocabulary that was selected for instruction may be the final contributing factor. According to (Fithriani, 2021) Certainly, the use of games has been successful in assisting EFL students in learning new vocabulary and recalling their knowledge of familiar vocabulary test content. Furthermore, it gave them the chance to extrapolate new information more than their peers who learned vocabulary without games. It also can help the teacher have an easier time to prepare the material from games and learning application, because some of the learning applications have already built in a material that teacher provides, for an example Duolingo application app have already more material that can be used for English, Japanese, and many other languages to explore more. According to (Dwi Tiara Anisa et al., 2021) In order for the Duolingo applications to have a positive impact on students' ability, Duolingo can increase student interest and motivate them to learn English.

And beside it can benefit on the time and efficiency, it also can develop students learning faster than a regular method, this is line up with (Anna, Suzana, and Helvia 2017), both the teacher and the student are learning how well virtual resources can support in-person activities. The learning process of the students might be aided by this application, which would increase the students' achievement. Additionally, it's widely accepted among students that Duolingo was a fun and successful way to learn English. This method is approved in several research that using a different method like a game or learning application can increase students learning development. The benefit not also targeted to the students, but the teacher has their own benefit, according to (Dwi Tiara Anisa et al., 2021) The use of mobile games in the classroom by teachers could reduce problems with time constraints and give students more chances to practice, learn, and produce language outputs on their own. However, despite the positive interaction, games and learning application have a disadvantage in learning process that include a limited internet connection, in the future research should investigate the learning process that have a limited internet access and how they will provide the problem to solve it.

CONCLUSION

This research is focused on finding does games can affect student vocabulary learning and from 3 article from different journal from the same year that the researcher chooses conclude that student can have a significant increase from using games to the teaching method. Between three articles they have different game and different method to teach the students, and all of the research have a significant increase for their scores, for example from the first article from IJEIT (Dwi Tiara Anisa et al., 2021) said the games might support students' academic growth, which benefits their performance, from (Çil, 2021) said the effect of this web resource on various aspects of language learning, such as the development of other language abilities or its use as an assessment tool, and the last from (Fithriani, 2021) The benefits that students feel come from using games in vocabulary learning positively correlate with its effectiveness.

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