Exploring the Potential of Digital Game-Based Vocabulary Learning among High School Students in Selangor

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ABSTRACT

Vocabulary plays a crucial role for students to learn and with the rapid evolution of digital learning, game-based learning, it becomes a new way to allow students to obtain new vocabularies in fun and meaningful learning. This research aims to find the potential of digital game-based vocabulary learning (DGVCL) among high school students in Selangor. The methodology used in this study is qualitative research design which is interview technique. The main findings reveal that DGVCL helps students to have extra practice, motivation, engagement, creates a positive and stress-free learning environment and self-learning. In this kind of environment, students find the lesson to be engaging and exhibit strong motivation making the lesson to be enjoyable which may in turn enhance their vocabulary retention. These findings make the teachers teach effectively in their classroom and make it as a part of teaching vocabulary through digital game-based learning than conventional teaching methods in an English classroom.

Keywords: Potential, Digital, Game-based learning, Vocabulary, DGVCL

BACKGROUND OF THE STUDY

Most individuals can understand English, which is a universal language and it is widely acknowledged as the most common language of communication in various fields, particularly education, business, and tourism (Ibrahim, Chan & Low, 2022). It is further stated that in many nations, including Malaysia, learning English in elementary and secondary education is required. The biggest issue teachers have when teaching and learning English is that their students do not have enough vocabulary and this issue that arises from the usage of media in the teaching and learning process is that it discourages students from joining classes because they are bored (Sihombing & Riana, 2023). Therefore, the authors further explained that it requires innovative learning materials, particularly when teaching vocabulary such as the usage of Digital Game-Based Vocabulary Learning (DGVCL).

However, the perspectives regarding digital games in education indicate that most teachers are not interested in integrating games into their lessons going into the future and there are two main reasons why teachers do not use digital games in the classroom such as time constraints and difficulties with technology (Ying & Ismail, 2022). It is further added that the enjoyable nature of educational games may also reduce their usefulness as teaching aids as the teaching process no longer receives a significant amount of attention in the current educational model, which instead places a greater emphasis on students.

Nevertheless, the availability of digital tools and the necessity to educate students in a society dominated by technology have also led to a rise in the application of technology in learning languages in recent years (Kazu & Kuvvetli, 2023). However, it is further added that even though Web 2.0 technologies have many benefits, it can be concluded that no research has been done on how to use them in game-based language learning environments. Hence, to investigate how digital game-based assists vocabulary learning among high school students, hence, this paper will explore what are the potential of digital game-based in assisting the vocabulary learning in the classroom, particularly towards the benefits of digital game-based vocabulary learning.

Digital Game-Based Learning (DGBL)

Adults are more motivated to play instructional digital games when the objectives are clear and they don't feel like they have too much to learn (Vnucko & Klimova, 2023). It is further explained that by providing a customized experience, having control over how the game progresses may boost their activity and interest. Not just that, the students' attitudes and motivation to learn can be effectively influenced by educational games and according to a study, students used gaming applications to actively engage in learning activities (Ibrahim et al., 2022). It is further elaborated that the learning process was significantly improved by the inventive use of text, images, animation, audio, and video shown through the gaming applications.

Teachers typically argue that games may improve students' motivation, creativeness, independence, and enjoyment levels during the language learning process because the growing usage of digital games can often be associated with addiction (Kazu & Kuvvetli, 2023). The integration of digital games in EFL learning is one of the changes brought about by the development of technology, especially for younger learners. Numerous research studies have demonstrated the impact of digital games on students' motivation, consciousness, and decision-making (Ying & Ismail, 2022).

Although teachers may see students improve their motivation and creativeness, using well-known digital instructional games can also significantly raise student learning performance (Eutsler, 2021). When the students are used to digital learning, students can utilize digital game-based learning when they are exposed to it and demonstrate a more seamless experience, this causes improved problem-solving skills in contrast to traditional learning (Noroozi, 2021). Traditional learning does impact students but when compared with digital learning, greater impact of digital game-based learning on students' perceptions of the value of education and retaining the knowledge (Cobos et al., 2018).

Vocabulary Learning

For EFL or ESL students, understanding English can be extremely difficult due to the challenging experience of learning vocabulary, which lowers intrinsic learning motivation and produces below-average learning outcomes (Ying & Ismail, 2022). Acquiring a grasp on vocabulary is challenging, requiring work to understand, produce, and use the desired words (Patra et al., 2022). It is further stated that particularly for pupils in the digital age, vocabulary development can be tiresome for language learners and despite the situation, the Internet has opened up a world of opportunities for improving pupils' target word learning in this digital age.

According to Sandi et al. (2023), the use of online games can help improve students' vocabulary through the hint language and notifications throughout the games. However, this method proved to have a flaw where the students might learn unorganized vocabulary, which leads to each student possessing various levels of vocabulary skills based on the games that they play. Meanwhile, the use of mobile applications for vocabulary learning also can hinder communication performance such as offering students words and phrases without context (Klimova & Polakova, 2020).

Teaching methods also play a role in improving children's learning experience. According to Cezero (2019), the teachers created holographic-based mobile games that can help assist children who speak Spanish in practicing pronouncing and learning English vocabulary. When children practice using digital games, the method of learning the vocabulary gives a positive impact on their motivation and helps them improve academic performance.

Vocabulary learning among students also differs based on the learning strategies used by English language students (Ghalebi et al., 2020). For example, the usage of vocabulary learning strategies between undergraduates and postgraduates has huge differences, so the EFL teachers are encouraged to develop materials and activities that would help improve the students' vocabulary learning (Ghalebi et al., 2020). According to Afzal (2019), the learners faced several issues in learning vocabulary such as memorizing, pronouncing and using new words correctly. It is also highlighted that it is important to learn the English vocabulary so it is good to learn how to draw students' attention to the importance of vocabulary learning by exploring new methods in the classroom.

Potential Of Digital Game-Based Vocabulary Learning (DGVCL)

All four primary language abilities can be developed more easily with the use of digital games for language learning and students can also improve their grammatical competence and expand their vocabulary (Casañ Pitarch, 2018; Vnucko & Klimova, 2023). It is further added that digital games could be a useful technique for improving the effectiveness of traditional English language instruction while adding some fun to the classroom. Kazu and Kuvvetli (2023) stated that students can practice and enhance their language abilities in an engaging and interactive setting by using digital games to offer vocabulary in a fun and interesting way.

Based on the research by Rasti-Behbahani (2021), the usage of digital game-based vocabulary learning has a positive effect on students' motivation, interactivity and repetition which plays a major role in enhancing their vocabulary acquisition. Aside from motivation and achievement, digital game-based vocabulary learning also increases students' self-confidence as those who used the game-based learning approach managed to share their vocabulary learning achievement records with their peers through communication platforms such as Whatsapp, QQ or WeChat (Li, 2021).

The potential can be observed that using digital games to learn a language shows the result of engagement in the learning environment (Andreani, 2019). According to Dinçer (2021), students can pick up new words in a risk-free setting by participating in a risk-free environment, and Abdullah (2020) stated that students' vocabulary acquisition may get easier with the use of digital games. The students with lower vocabulary would be able to capture what they have learned through DGVCL.

Digital games have grown in popularity as a tool for vocabulary development in English and this is especially true when teaching vocabulary through games (Ying & Ismail, 2022). Nevertheless, it is further understood that only a few published research from the significant DGVCL articles provide a thorough explanation of the following information as of the state of publication as of right now, digital games for learning vocabulary involve theoretical frameworks, research challenges and findings, and field execution.

METHODOLOGY

In this study, a qualitative research design is utilized. To obtain the data, the study used an interview technique which involved three high school teachers in Selangor. Before conducting the interview, the interview questions were examined by a TESL postgraduate student who has been exposed to the right way of developing interview questions. To collect the data, the interview was conducted through a semi structured interview and the data was analyzed using thematic analysis.

FINDINGS AND DISCUSSION THE POTENTIAL OF DGVCL

Based on the interview session, this study had found five different potentials of digital game-based vocabulary learning (DGVCL) such as extra practice, motivation, engagement, stress reduction and self-learning.

Extra practice

The interviewee stated that she used DGVCL for homework which she normally uses Quizizz or Word wall since her students are familiar with that platform.

"For homework. Normally use quizizz & word wall since they are familiar with that" (Interviewee 1, female teacher)

This statement had proved what Noroozi (2021) had stated before which when exposed to digital game-based learning, students who are accustomed to digital learning can make better use of it and exhibit greater ease of use. She also stated that this method is very useful whenever it involves vocabulary teaching because it helps students to have extra exercises as part of acquiring the vocabulary. This method eases the students to have extra exercises in gaining the vocabulary.

"I think it is very useful in assisting teachers to teach vocab. It normally serves as extra exercises for my class. Because learning vocabulary is part of the acquisition process. One needs to read a lot or do extra exercises to gain vocab" (Interviewee 1, female teacher)

Motivation

Next, it is also found that the DGVCL potentially helps to boost students' interest and motivation. The interviewee mentioned that he used various websites and applications to boost his students' motivation while they are learning English.

"I also make use of other websites or applications such as Quizziz, www.freelearningpoints.com, www.liveworksheets.com and as such, in order to rouse my students' interest and motivation to better learn English" (Interviewee 2, male teacher)

This statement is similar to what Ying and Ismail (2022) had mentioned in their study where they found that numerous research studies have demonstrated the impact of digital games on students' motivation. It is clearly proved that DGVCL as part of the digital games is able to help the students to have motivation when they are learning and this includes the vocabulary learning among high school students.

Engagement

Next, DGVCL also helps the students to have better engagement in the class. The interviewee mentioned that whenever she had time to utilize this method, her students enjoyed it during the class compared to when she was teaching using the traditional method.

"When i have the time to do it in class, they seem to enjoy the lesson compared to traditional method" (Interviewee 1, female teacher)

Even interviewee 2 mentioned that his students will request similar lessons numerous times whenever he uses the method. He further explained that whenever he used the method, students showed strong motivation and extremely content with the learning style.

"My students constantly requested the same lesson over and over, which goes to show that they exhibit strong motivation and are supremely content with digital game-based vocabulary learning style" (Interviewee 2, male teacher)

Meanwhile interviewee 3 also said that whenever he uses DGVCL, the lesson was engaging and caused the students to answer the questions that have been given to them.

"Lesson was engaging, students attempted to try to answer" (Interviewee 3, male teacher)

He further said that this method is interactive which could give a new perspective on how the learning session will look like. With the additional elements of gamification, helps the students to feel more interested towards the lesson and feel motivated to engage with other classmates.

"Interactive, gives a new horizon in learning process, element of gamification featured makes students more interested and motivated to engage" (Interviewee 3, male teacher

Through this finding, has proved what has been mentioned earlier by Ibrahim et al. (2022) which showed that the educational games have the potential to significantly impact students' attitudes and willingness to learn and in fact, students actively participated in learning activities by using gaming applications

Less Stressful

In addition, it is also found that the usage of DGVCL also helps the students to have a less stressful learning session for the students. The interviewee said that this method is a great tool to gamify the learning lesson which

helps his students to acquire the vocabulary in a less stressful and conducive setting.

"Digital game-based vocabulary learning (DGVCL) is a great tool to gamify learning, as to make acquiring English vocabulary: a less stressful and conducive for students. Not to mention that these applications or online worksheets render immediate feedback for students to improve independently" (Interviewee 2, male teacher)

Self-learning

Finally, it is also found that the DGVCL has helped the students to have self-learning. Since the DGVCL is done through digital application, it helps the students to have an immediate feedback which later helps them to have a self-learning process immediately.

"Not to mention that these applications or online worksheets render immediate feedback for students to improve independently" (Interviewee 2, male teacher)

DGVCL Future Potential

From the interview session, it is seen that the usage of DGVCL has its own future potential such as the emergence of AI and digital games, the exploitation of opportunity and the incorporation of digital elements in teaching.

The emergence of AI and Digital Games

According to interviewee 1, she mentioned that with the DGVCL, the classroom is soon to see more emergence of AI and digital games which could help the teachers to explore and use it effectively in their classroom especially with the vocabulary teaching.

"AI and digital games are emerging in the 21st Century classroom. I hold positive views & attitude towards it and believe that future educators are able to embed digital game-based learning effectively in their classroom as part of teaching vocabulary" (Interviewee 1, female teacher)

The Exploitation of opportunity

Next, there will be more opportunities that can be discovered in the teaching and learning session which the interviewee believes that now the DGVCL is still in its developing stage and not many teachers were exposed to it. With improper training of the digitalisation learning and facilities usage, the DGVCL has not been used to its full potential.
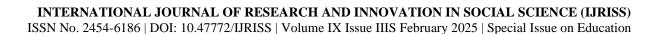
"Highly potent, more rooms of opportunity to be exploited in the digital game-based as a medium since I personally believe that it is merely at its developing stage. Plus, many teachers might not be properly trained on how to make use of digitalization of learning and facilities provided at school may not be adequate to support it" (Interviewee 2, male teacher)

The Incorporation of Digital Elements

Finally, it is mentioned by interviewee 3 that the DGVCL potentially helps the teacher to incorporate the digital elements in the future teaching. Since this is part of 21st century learning, teachers are expected to utilize themselves with the digital elements during the teaching.

"Inevitable, it is a part of 21st century learning, and teachers are expected to incorporate digital elements in their teaching" (Interviewee 3, male teacher)

Based on the interview done with the respondents, it is found that the usage of digital game-based vocabulary learning (DGVCL) potentially helps the high school students in five different aspects which are extra practice, motivation, engagement, stress reduction and self-learning . This study has similar findings with what others researches which shows that the usage of DGVCL helps students to boost students' motivation (Rasti-Behbahani, 2021) and have engagement and interactive setting (Kazu & Kuvvetli, 2023; Andreani, 2019). However, there

is no research that has found that the DGVCL helps students in terms of having extra practice and stress reduction.

Nevertheless, there are numerous studies have found other potential of this learning which is to improve their grammatical competence and vocabulary (Casañ Pitarch, 2018; Vnucko & Klimova, 2023), increase their interactivity and enhancing their vocabulary acquisition (Rasti-Behbahani 2021), increases students' self-confidence (Li, 2021) and increases students' vocabulary acquisition (Abdullah, 2020; Ying & Ismail, 2022). From these discoveries, it can be said that throughout the years, the DGVCL has slowly improved many aspects of students' development especially in their motivation and engagement. Interestingly, this study has found another potential of this DGVCL which helps the high school students to have extra practice in their vocabulary learning, help them to have a less stressful way of learning vocabulary in the classroom and also for self-learning.

CONTRIBUTIONS

The research found that most teachers usually use traditional methods to teach vocabulary in English classrooms. However, they do use digital game-based vocabulary learning with the students, especially to test their level of English vocabulary skills. According to the data collected, it is found that the usage of digital game-based vocabulary learning could enhance the students' motivation and interest in learning vocabulary as it is less stressful, more fun and engaging. This study contributes to a wider view of the usage of digital game-based vocabulary learning and its potential, especially from the perspectives of the teachers themselves. This research also provides some examples of platforms that can be used to implement digital game-based vocabulary learning, which is also based on the students' familiarity with the websites and platforms used.

CONCLUSION AND RECOMMENDATIONS

In conclusion, this study reveals the results showed that teachers use both digital and traditional for vocabulary learning. The impact of digital game-based vocabulary learning (DGVCL) in high school English classrooms through the lens of teachers' experiences show motivation, engagement, extra practice, stress-free, self-learning and fostering engagement between teachers and students. Teachers saw positive input from children learning through DGVCL to enhance vocabulary acquisition, ultimately enriching language learning experiences in English language classrooms.

Additionally, we recommend educators and institutions integrate digital game-based vocabulary learning (DGVCL) as a supplementary tool in lesson plans. It is to empower teachers in effectively utilizing DGVCL. Teachers can continuously evaluate DGVCL's impact and identify the loops which are needed to improve on. Teachers can adapt strategies based on insights gained for optimal outcomes and encourage collaborative programmes among educators to share best practices and resources. Teachers would be able to refine DGVCL methodologies, creating programmes with the Ministry of Education in innovating new ways of creating DGVCL design. This approach will empower educators to acknowledge the potential of DGVCL, creating engaging, meaningful and impactful language learning experiences for high school students.

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