Chapter 33

Be a Hero through Gamified-learning: A PowerPoint Revolution

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ABSTRACT
The demand of the current world is not only limited to developing 21st-century skills but also imposing a necessity for everyone to equip themselves with adequate proficiency in the English language. Regardless of that, English as a second language (ESL) learners are facing difficulties in terms of vocabulary acquisition, which could hinder the success of ESL learning. One of the stand-out tools to be used in curbing the issue is games. With an abundance of technologies to choose from, it is vital to design, develop and evaluate the effectiveness of an innovative and creative tool to be used as a game in teaching ESL vocabulary. An innovation of PowerPoint is the main product, whereby three games were created through PowerPoint incorporating ESL vocabulary as the key element. A number of 37 secondary school students in Malaysia were chosen to participate in this quasi-experimental study, whereby a pre and post-test were given complimenting an intervention of gamified-learning using PowerPoint. Based on the findings, it can be seen that there was an improvement in students’ vocabulary acquisition in the post-test, which was caused by the students’ engagement in the lesson through gamified-learning. This innovation implied that it is vital to incorporate games into ESL lessons, as games are a source of motivation, which could capture students’ attention and engage them in learning. Future research can look into the different types of games suited to different group of students. Thus, the benefits of gamified-learning are undeniable and it could bridge the gap between traditional and modern methods of learning for the millennial students.

Key Words: English as a second language (ESL), gamified-learning, motivation, vocabulary, technology-enhanced language learning
1. INTRODUCTION

As we are entering into the 21st-century era, humans are evolving intellectually alongside with technology. Technology is being used constantly in various fields due to its practicality and efficiency (Yunus, 2018). Particularly in the education sector, technological tools are being used as a motivation for students to learn and ensure the time spent on teaching and learning is of quality (Caponetto, Earp, & Ott, 2014; Cheong, Cheong, & Filippou, 2013). In order to be successful in second language learning or foreign language learning, motivation and the right attitude are required (Valencia, 2016). To be able to fully utilize a language is important for everyone as it is used as a medium for communication. Hence, it is important to ensure that students can learn and understand the lesson without feeling bored.

However, the problem in English as a second language (ESL) learning is lack of vocabulary among ESL learners (Misbah, Mohamad, Yunus, & Ya’acob, 2017). Language learning, particularly vocabulary is not easy for someone who learns English as the second language. Vocabulary is one of the most important elements in language learning and having a wide vocabulary range is crucial because it will help in understanding the written and spoken language (Boyinbode, 2018). To ensure the students’ understanding on the words, it is important to have effective vocabulary instruction such as direct instruction, repeated exposure, contextualising words, and opportunities for word interaction and active engagement (Kingsley & Grabner-Hagen, 2018). Vocabularies are usually being taught through the drilling and memorizing patterns for words (Rahman, Sulaiman, & Hafid, 2016). Due to that, it is difficult for teachers to make the teaching and learning process interesting. However, using games can integrate a playful learning environment, which can influence the way students interact with the words. Incorporating games in language learning can engage students to be more active and will enhance their vocabulary performance through repeated exposure (Kingsley & Grabner-Hagen, 2018). Hence, it is vital to design, develop and evaluate the effectiveness of an innovative and creative game in teaching ESL vocabulary.

2. LITERATURE REVIEW

In the last couple of decades, games have become progressively popular. Games specifically have brought so much entertainment in people’s lives as they provide stress-free elements for adults as well as younger learners. Games are also said to be an emerging trend in multiple sectors such as business, organizational management, in-service training, health and education (Caponetto et al., 2014). In education, games are incorporated predominantly in classroom learning such as language learning classrooms. Education has immensely changed overtime where teacher-centred learning is no longer relevant and has shifted to student-centred learning (Hashim, M. Rafiq, & Yunus, 2019). Implementing games in language learning can also reduce anxiety and fear of being judged, as well as allowing students to obtain new knowledge and improve learning through multiple intelligences (Iaremenko, 2017).
Gamification is a new concept which uses the elements from digital games in the non-games application (Su & Cheng, 2015). It produces positive outcomes towards the learners' attitude and behaviour (Putz & Treiblmaier, 2015). Gamification should not be confused with game-based learning as the latter involved students to simply play games, which include online games, while the former is the teacher altering activity or teaching material, which include games' elements and principles (Kingsley & Grabner-Hagen, 2018).

The gamified-learning theory is the base to follow when there is a need to create a game for classroom contexts. In this gamified-learning theory as proposed by Landers and Landers (2014), there are three inter-related variables, which could affect the learning outcomes, as shown in figure 1.

![Figure 8: The gamified theory of learning (Landers & Landers, 2014)](image)

The three variables are the game characteristics (D), instructional content (A) and behaviour or attitude (C), which affects the learning outcomes (B) (Landers & Landers, 2014). The game characteristics, such as the rewards system or the interface of the game will influence the learners’ motivation, which contributes to their behaviour towards the gamified-learning. A positive attitude is hypothesised to bring a positive learning outcome. This process is known as the mediating process, which means that the learners' behaviour or attitude (C) explains on the relation between game characteristics (D) and learning outcomes (B) (Landers & Landers, 2014). Another process in this gamified-learning theory is the moderating process, whereby the behaviour or attitude (C) will determine the strength of influence that the instructional content (A) has towards the learning outcomes (B). Landers and Landers (2014) emphasised on the importance of learning through games, which results in a positive outcome in learning, not only in knowledge but also in character building.

Researchers have made extensive research towards the importance of gamified-learning, especially in enhancing learners’ motivation in learning (Hashim et al., 2019; Morschheuser, Riar, Hamari, & Maedche, 2017; Tobar-Muñoz, Baldiris, & Fabregat, 2017; Tobar-Muñoz, Fabregat, & Baldiris, 2015). Results have shown that games are effective in improving grammar in ESL (Hashim et al., 2019), promoting language development (Liu, Holden, & Zheng, 2016) and enhancing learners’ 21st-century skills (M. Rafiq & Hashim, 2018; Tobar-Muñoz et al., 2017). For these reasons, the role of a teacher is to ensure that the students are engaged in learning to improve themselves as a whole. Without engagement, learners would not be able to learn effectively (laremenko,
Hence, it is definitely crucial to gain students’ full engagement and participation in learning, so that they can fully comprehend the language and enhance their performance in ESL learning.

3. METHODOLOGY

For this innovation, the PowerPoint is used as the main tool, whereby three games were created through PowerPoint incorporating ESL vocabulary as the key element. A number of 37 secondary school students in Malaysia were chosen to participate in this quasi-experimental study, whereby a pre-test was given prior to the three interventions and a post-test was given after all the interventions. The pre-test and post-test consisted of 30 multiple choice questions and the results were recorded in the form of percentages and grades according to the Malaysian grading system.

This study was carried out for two weeks, whereby the pre-test was given out in the first class before the first intervention (figure 2). Then, the second intervention was carried out in another class session (figure 3). Finally, the third intervention was carried out in the third class session followed by the post-test (figure 4). The pre-test and post-test results were calculated and recorded in the form of a frequency count.
4. RESULTS AND DISCUSSION

This quasi-experimental study aimed to identify the effectiveness of using gamified-learning to improve ESL learners’ vocabulary. The results for the pre-test and post-test are displayed in table 1 below.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Marks</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>A</td>
<td>85-100</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>70-84</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>60-69</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>50-59</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>40-49</td>
<td>9</td>
</tr>
<tr>
<td>F</td>
<td>0-39</td>
<td>22</td>
</tr>
</tbody>
</table>
Table 1 depicted the results for the pre-test and post-test of students. The grades were given according to the Malaysian Education system. Based on the scores, each score belongs to a certain grade. The highest grade is A followed by B, C, D, E and finally F. The grade F is considered as fail. Based on the results, the students’ grades improved drastically for the post-test whereby no students scored grade F in the post-test as compared to the pre-test, which showed that 22 students failed. It can also be seen that three students scored A in the post-test compared to the pre-test, whereby none of the students received an A. The results showed that gamified-learning improved students’ ESL vocabulary.

This result is in accordance with the results from previous studies, which also showed that gamified-learning improved ESL learning. The main reason for this is due to the fact that gamified-learning is motivating and encouraging (Hashim et al., 2019; Iaremenko, 2017). Games are competitive in nature, whereby learners are competing with each other to finish the game. Due to that, learners participate actively in the learning session (Tobar-Muñoz et al., 2017), whereby they have the tendency to learn ESL vocabulary by themselves. Gamified-learning does not only condone to 21st-century learning but also encourages active and independent learning. Learners are able to learn new words by themselves, whereby they monitor their own vocabulary acquisition.

Learning ESL vocabulary requires a massive amount of focus, which can be sustained through gamified-learning (Morschheuser et al., 2017) When students learn independently and cooperatively with their peers, they learn better. Plus, the success of language learning is closely associated with learners’ engagement in the lesson. (Zakaria et al., 2018). Through gamified-learning, learners are more engaged in the lesson and indirectly, it positively affects the learning outcomes, especially in acquiring ESL vocabularies.

5. CONCLUSION AND RECOMMENDATION

This innovation aimed at improving ESL learners’ vocabulary through gamified-learning. As the results portrayed, games are effective in enhancing the vocabulary acquisition of learners. The combination of pictures, animations, sounds and elements in a game, which are also a part of the game characteristics (D) improve the learners’ attention, whereby a longer attention span results in better retention of vocabularies learned. Additionally, the narrative element in these games, which condone to the instructional content (A) of the game sparks the interest of students, as they are venturing into another world as an explorer. Students may look like they are playing the games for fun, but learning also takes place, which makes gamified-learning to be a suitable tool to be used in ESL classrooms. This innovation implied that it is vital to incorporate games into ESL lessons, as games are a source of motivation, which could capture students’ attention and engage them in learning. Future research can look into the different types of games suited to different group of students. Thus, the benefits of gamified-learning are
undeniable and it could bridge the gap between traditional and modern methods of learning for the millennial students.

REFERENCES


