

Improving ESL Learners' Grammar with Gamified-Learning

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Abstract

Aligning with the Industrial Revolution 4.0, an abundance of high-tech inventions has embarked their pavements in the educational field. Despite being under the 21st-century umbrella, the English language proficiency of Asian learners is still a few steps behind. Undeniably, most of the English as a Second Language (ESL) learners in Asian countries face challenges in learning ESL grammar. Grammar has been an intricate component to master due to its nature of complexity. This study aimed at exploring the effectiveness of using online language games in improving ESL learners' grammar. A total of 30 students in a secondary school were involved in this research. The research design of the quasi-experimental method was used, employing the pre and post-test. Data were analyzed using percentages to compare the results after three interventions of gamified-learning known as Socrative, PowerPoint Challenge Game, and Kahoot! The main findings indicated that learners' scores on the grammar post-test showed a significant increase from the pre-test. The improvements can be seen in the grading system, whereby, no participant obtained a grade D and E in the post-test as compared to the pre-test. Hence, the results depicted that gamified-learning is effective in teaching grammar to ESL learners.

Keywords: English as a second language (ESL), gamified-learning, grammar, online games, technology-enhanced language learning

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1.0. Introduction

In this fast-paced world, education is a crucial aspect for an individual. The revolution of the world has impacted the educational field as well. The reformation in the educational field moves towards the Industrial Revolution 4.0, whereby 21st-century learning is proposed to achieve the aim of the National Philosophy of Malaysian Education (NPME), which is to produce a holistic individual through education (Ministry of Education Malaysia, 2013). In the current education system, Malaysia integrates the Common European Framework or Reference for Language (CEFR) into primary and secondary schools. This new curriculum sought to improve English proficiency among younger learners. "The reform holistically outlines the development of learners as competent users of the language to enable them to participate fully in both professional and academic contexts from schools up to tertiary level and also in teacher training" (Azman, 2016, p. 67). This curriculum is hypothesized to provide natural learning to learners.

Despite the reformation of curriculum, "Vocabulary acquisition in a foreign language is a problematic and time-consuming task" (Yunus, Salehi & Amini, 2016, p. 184). In learning the English language, a component which inhibits the desire for learners to learn the language is the English language's grammar. Grammar is defined as a generalization in linguistics features, which forms a system of the language (Kapatsinski, 2014). Although learning the English language sounds easy, ESL learners still have complications in learning it (Misbah, Mohamad, Yunus & Ya'acob, 2017).

Since primary school, students are equipped with grammar knowledge, yet they still have a hard time learning English due to limited vocabulary in the language (Misbah et al., 2017). Aligning with the current trends in the Malaysian curriculum, the integration of Information Communications Technology (ICT) in schools is beneficial. Incorporating ICT in teaching and learning has proven to be a better teaching method as learners are more inclined towards the more relaxing atmosphere of learning (Noureddine, 2017).

However, grammar activities designed in the Malaysian English textbook for secondary schools are catered for the conventional teaching method (Siaw-Fong, 2017). This shows that although the curriculum in Malaysian Education has moved towards 21st-century learning, the content is still designed in an old-fashioned way. Therefore, this study aims to investigate the effectiveness of using online language games in improving Malaysian's secondary school students' English grammar.

1.1. Computer Assisted Language Learning

Based on the development of the Computer Assisted Language Learning (CALL), beginning from email in 1988, CALL has developed since to become a better learning tool for teachers in language classrooms (Padmavathi, 2013). Online games can be used to promote better learning for students. With adequate facilitation from the teacher, online tools are capable to enhance the language of learners (Krystalli, Arvanitis & Panagiotidis, 2014). Thus, incorporating games into teaching will ensure the effectiveness of the learning session.

1.1.2. ICT and Language Learning

The term Information Communications and Technology (ICT) has been used widely in communities. ICT has made life easier for many people. Regardless of the various functions of ICT, currently, ICT serves as an educational tool. Nouredine (2017) states that positive language learning can be achieved with the integration of technology. Hence, many educationists start using ICT to monitor and accompany their teaching and learning session. "Due to the fact that students are familiar with technology and they will learn better within the technology-based environment, the issue of ICT integration in schools, specifically in the classroom is vital" (Ghavifekr & Rosdy, 2015, p. 175). This shows that ICT provides a positive effect on education by providing an opportunity for learners to monitor their own learning. Yunus (2018) indicates that the reformation of technology has beneficially changed the roles of teachers and allows more learner-centered activities to be carried out.

1.1.3. Online Language Games

Online games or digital games vary in terms of the number of players and categories. Digital games have many types and categories, from individual to large groups and from educational to fantasy respectively (Kim, Song, & Burton, 2018; Chun, Kern, & Smith, 2016). Additionally, "language game is a game with rules that have linguistic aims and they are agreed with the participants" (Ibrahim, 2016, p. 54). Therefore, online language game brings the meaning of a competitive platform which includes linguistic elements in a game.

Games are said to be beneficial in education. The main reason for a game to be a successful tool in aiding learning is due to the fact that games provide a competitive platform for learners to fully engage in the game (Mekler, Rank, Steinemann & Iacovides, 2016; Bullard & Anderson, 2014). This means that many educators nowadays prefer to use a more stimulating way to deliver their lessons, rather than the talk-and-chalk method. Concepts and experience in the real world can be fostered through games, which proves to be an effective tool for learning (Hashim, 2018; Santhanam, Liu & Shen, 2015). As an educator in 21st-century learning, transforming a classroom into a digital learning environment is crucial.

Education changes over time as can be seen nowadays, where the old method of a teacher-centered classroom has been changed to a student-centered classroom. "Indeed, it is necessary for teachers to possess high adaptability towards changes as changes bring new doors of learning" (Ling & Yunus, 2017, p. 15). Teachers should adhere to the ever-changing education to ensure learners achieve a maximized learning experience. With regards to the evolution of technology, a firm belief that learning can be enhanced using games is ignited (Wiggins, 2016; Krystalli et al., 2014). Thus, online language games can cater to independent learning as well as enhancing the language of learners.

1.2. Grammar in ESL Learning

Grammar is the basics of the English language, which allows ESL learners to read, write, speak and understand English effectively (Cam & Tran, 2017; Turkmen & Ayden, 2016). Grammar is a complex component in a language, whereby teaching and learning of grammar are difficult. As stated by Mart (2013), the grammar of the English language is taught in the target language of learners because it can foster a better understanding and promotes independent

learning. Ibrahim (2016) emphasizes that in order to accomplish a higher proficiency in ESL, grammar learning is a must. The teaching of grammar should be fun to provide learners with better performance. As further supported by Yunus, Nordin, Salehi, Sun and Embi (2013), learners are able to improve their vocabulary acquisition through ICT.

1.3.Related Studies

Previous studies have shown the effectiveness of gamified-learning in improving grammar. Grammar is a complex aspect in ESL. Still, when teachers incorporate technology in the classroom, such as online games, learners' grammar learning seems to show improvement. Based on the research by Perveen, Asif, Mehmood, Khan, and Iqbal (2013), students who learn through games acquire more vocabularies. The reason lies in the motivation itself (Hamari & Hassan, 2019; Flores, 2015), whereby it is stated that students are more motivated and eager to learn while playing. Games in the language classroom involve the active participation of students in learning, which in return provides a solid platform for learners to effectively and positively learn grammar in ESL (Leaning, 2015; Hamari, Koivisto & Sarsa, 2014).

In another related study, Rao (2014) emphasizes that students gain more words and learn the correct structures of English when they are engaged in games. It is stated that English games promote an inexplicable learning experience where students keep looking forward to learn new words. Online language games also provide a better version of the English language, other than engaging students in ESL learning (Mullins & Sabherwal, 2018). Furthermore, there is a difference in the way students acquire vocabularies, whereby they obtain more words based on online games, compared to the traditional method of teaching (Castaneda & Cho, 2016; Reitz, Sohny & Lochmann, 2016; Aslanabadi & Rasouli, 2013). According to this research, it can be seen that ESL learners tend to learn more with the aid of technology because they find it to be more exciting and appealing (Raba, 2014; Liu, Li & Santhanam, 2013). A traditional method of teaching is not that effective anymore in imparting knowledge of grammar to students.

In a study by Bullard and Anderson (2014), gamified-learning manages to improve learners' achievement with regards to the pre and post-test carried out. A similar result is also discovered in a study by Wichadee and Pattanapichet (2018). Learners perform better after the interventions due to their engagement in the games (Poondej & Lerdpornkulrat, 2016). Learning through a fun environment retains a better memory of the lesson learned. This study also portrays the effectiveness of using online language games in improving learners' grammar skills.

To conclude, online language game is a current method that can be used by teachers to improve learners' grammar in ESL. There is no doubt with the development of technology, it is easier to monitor the effectiveness of the teaching and learning session in schools.

1.4.Objective

This study aims to investigate the effectiveness of using online language games in improving Malaysian's secondary school students' English grammar.

1.5. Methodology

This research employed a quasi-experimental study, which included a pre-test with three sessions of intervention, and a post-test. A total of 30 students from a suburban secondary school in Malaysia were the targeted participants for this research. The level of proficiency of the participants was between intermediate to low. The research instruments include giving out a pre-test of 20 grammar questions, followed by three interventions using various online language games such as Socrative, PowerPoint Challenge Game, and Kahoot! for three consecutive weeks, respectively. A week after the last intervention, a post-test of 20 grammar questions was carried out. Data collected were recorded in frequency count and scores from the tests were converted into percentages as standardized by the Ministry of Education Malaysia, whereby each score belongs to a different grade.

1.6. Results

This study has investigated the effectiveness of using gamified-learning in improving ESL learners' grammar. Table 1 and Figure 1 present the findings of this study.

Based on Table 1 and Figure 1, there was an increase in the results of the participants' post-test. For grade A, it showed an increase by one participant from the pre-test. For grade B, in the pre-test, only five participants obtained the grade, while in post-test, a total of 16 participants managed to get the grade. This shows an increase among participants, who received a grade B. The number of participants who obtained a grade C in the pre-test were 15, whereby in post-test, there were only 12. The decline in this figure shows that the three participants received a better grade in their post-test as compared to their pre-test results. In other words, online language games improve ESL learners' grammar. Eight participants scored a grade D for their pre-tests, but in the post-test, none of the participants received this grade. Same goes for grade E, where one participant scored the grade for pre-test, but none of them scored the same grade for post-test. The results proved that gamified-learning is able to improve ESL grammar of learners. Most of the participants received a better grade and they were able to improve themselves in grammar learning. Using online language games, which is also a technology-based learning tool, participants benefit more from it.

1.7. Discussion

The results are analyzed in relation to the aim proposed based on the comparison results of the pre and post-test. First, the increasing scores from the pre-test proved that all interventions carried out were effective, which also adheres to the aim of this paper. Using the interventions in the form of online language games, the results can be seen as positive. It can also be seen that online language game improves grammar to a certain extent whereby participants no longer get a grade D or E for post-test. The findings from a study by Perveen et al. (2013) also proves that the achievement of students unexpectedly increased, in terms of vocabulary acquisition when students learn through the use of games. The reason behind the improvement is due to the motivating intervention (Flores, 2015). Ghavifekr and Rosdy (2015) support this claim by stating that students learn better when they are aroused in the technology-based teaching method used by the teacher. Aligning with the improved results, gamified-learning is effective.

Many students are able to improve their grammar in ESL with the aid of online language games because online language games condone to the 21st-century learning (Mullins &

Sabberwal, 2018; Poondej & Lerdpornkulrat, 2016; Learning, 2015). The integration of technology in the classroom adheres to the tech-savvy learners' needs (Hashim, 2018; Raba, 2014; Sohny & Lochmann, 2016). Due to the nature of gamified-learning, learners are able to improve themselves. Relating to a study by Rao (2014), he mentions that the effectiveness of using games to improve learners' achievement, lies in the engagement of learners towards learning and playing at the same time. Additionally, Aslanabadi and Rasouli (2013) state that students' achievement in grammar is closely related to their motivation and eagerness to win a game, which indirectly impacted their results. The results from these two studies show similar results to this study on the effectiveness of using gamified-learning in improving grammar.

Learners, especially school students, currently known as the alpha generation, grow up with technology. For them, without technology, they are unable to do something brilliantly. "For these learners, technology is not considered an accessory to life, but is viewed as a way of life" (Hashim, 2018, p. 2). Besides, it can be said that students like something new in their normal classroom routine. Bullard and Anderson (2014) carry out a study and the results obtained are closely related to this study, whereby learners perform better in the grammar post-test due to their interest and active participation in ESL classroom. Thus, when students learn something in a new way, they will appreciate it and their learning spirit will increase as well (Castaneda & Cho, 2016; Reitz et.al., 2016).

Learners are more independent in fostering their own learning, especially when they are motivated and have interest in the learning process, which can be aroused using ICT (Yunus et al., 2013). It can be said that motivation plays a vital role in the success of a learner in ESL learning. Tahaineh and Dana (2013) state that motivation highly affects the success of learners in learning a second language and they also implore teachers to use motivating teaching methods in the classroom. In this paper, an online language game is a motivating tool which makes learners obtain better results and further proves that online language games improve ESL grammar learning.

1.8. Conclusion

Based on the findings of this paper, it can be concluded that gamified-learning is effective in terms of grammar achievement. Learners are able to obtain better results when they learn grammar using online language games. Some of the factors involved in positive academic achievement include motivation and fun. An online language game is fun, to begin with. Due to that, it motivates learners in playing the game. When learners are interested in playing, their confidence level as well as their self-esteem in learning grammar increases. The traditional method of teaching is unfavorable for ESL learners. This in return provides a positive feeling towards learning grammar through online games. As learners have a positive attitude towards learning ESL grammar, they benefit from it by gaining better results. Therefore, it would be best if teachers start using online language games in teaching ESL grammar. It is crucial for teachers to effectively integrate technology in aiding their lessons for an efficient learning outcome. Overall, with the rapid advancement of technology and gadgets, ESL learners will benefit massively through gamified-learning.

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Appendix A.

Table 1. Pre-test and post-test results

Grades	Range of scores (%)	No. of students	
		Pre-test	Post-test
A	80 - 100	1	2
B	65 - 79	5	16
C	50 - 64	15	12

D	40 – 49	8	0
E	0 – 39	1	0
TOTAL		30	30

Appendix B.

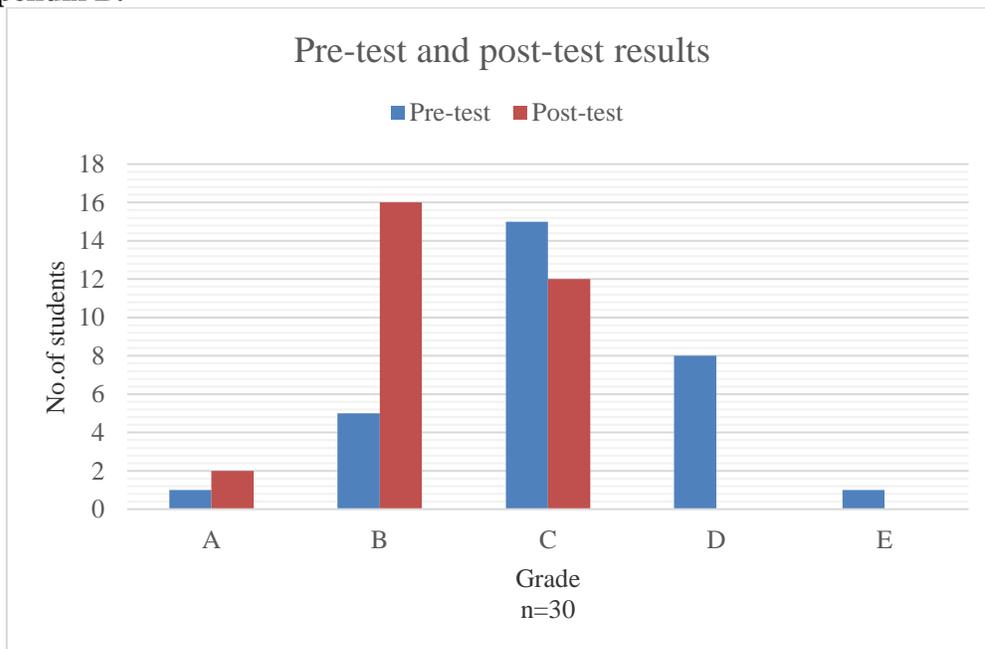


Figure 1. Pre-test and post-test results