

CHAPTER 2

“CATCH AND KEEP” THROUGH WORDWALL IN IMPROVING VOCABULARY MASTERY AMONG YEAR 3 PUPILS

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ABSTRACT

Online educational games as teaching and learning aids are constantly being researched to assist pupils in improving their English language vocabulary knowledge due to the influence of remote learning during Covid-19. Pupils are seen to have problems producing new vocabulary in their learning. Hence, this study aims to design, develop and evaluate the effectiveness of using “Catch and Keep ” through Wordwall platform in improving English as Second Language (ESL) learners' vocabulary. This study also intends to investigate to what extent “Catch and Keep” helps in improving vocabulary mastery. An empirical research involving 30 primary pupils with different levels of academic proficiency was conducted. A pre-test and post-test were carried out before and after the innovation. Then, a survey questionnaire was carried out to gather the perceptions of learners towards “Catch and Keep”. This innovation has an organized module to carry out the designed games through Wordwall. The results from the pre-test, post-test and survey are further discussed in this paper. This innovation suggested that well organized online games should be incorporated in ESL classes since games are a form of encouragement that may catch and keep pupils' attention to engage them in learning. Thus, the value of the innovation is that it gives a systematic and localised games for English vocabulary teaching and learning, which is beneficial to both teachers and pupils.

Key Words: Covid-19, Vocabulary Mastery, Teaching and Learning, Wordwall, Innovation

1. INTRODUCTION

In an era disrupted by the Covid-19 pandemic, the development of educational tools using technology that are compatible with remote learning has become a critical approach, since millions of students practise social distance to prevent the virus from spreading. As a result, nearly all teaching has swiftly shifted to distance education in order to ensure proper social distancing (Johnson et al., 2020). Online interactions have become feasible as a result of continual advancements in digital technology. As a result, a significant deal of effort has gone into developing innovative teaching techniques or resources that boost pupils' enthusiasm and commitment while simultaneously maximising their knowledge acquisition especially in an ESL lesson. Using innovative material is an alternative method of teaching that assists students in gaining a successful teaching and learning experience, Madut and Yunus (2016).

The shifting of the standard face-to-face classrooms to virtual learning initiated by the Ministry of Education (MOE), (Kamarudin, 2020), has had the greatest influence on young learners, who are still laying the groundwork for their education. Being cooped up at home has its drawbacks; there are less opportunities for interaction, and students are missing out on the supportive school environment in which they may learn a range of new vocabulary. A study by Dong, Chua and Li (2020) also indicated that the lack of learning atmosphere and social interactions to engage young children results in poor learning outcomes. On top of that, vocabulary learning is regarded as one of the most essential aspects of language acquisition, and it is frequently used as a strategy for second language acquisition, Sivagnanam and Yunus (2020). Gamification has its potential to improve students' learning, (Koivisto & Hamari, 2019). The game's features create social connections (Waytz & Gray, 2018), encourage knowledge acquisition (Toh & Kirschner, 2020), develop creativity (Vartanian & Beatty, 2015), reduce isolation (Valkenburg & Peter, 2009) and improve mental health (Cruea, 2020). Wordwall is one of the easiest methods to gamify education by allowing students to test their knowledge on a platform using various sorts of games. However, because Wordwall has so many games, teachers must be careful and attentive of how they conduct a gamified learning environment, especially with young pupils.

This study focuses on young learners aged 9 years old in this era where social distancing is a norm, technology is advancing and how the innovation of online games makes a huge impact in mastering vocabulary. However, it's also futile to play games without the proper material for educational purposes. Pupils are seen to have problems producing new vocabulary in their learning. Hence, the researchers came up with an innovation using "Catch and Keep" through Wordwall. Previous studies such as a study done by Hasram et. all (2021) and Çil, E. (2021) had explained about the usage and effect of Wordwall in ESL but our study is focused on the systematic module which is the innovation in adopting Wordwall in learning vocabulary. Teachers can benefit from this innovation which will help them in systematically apply Wordwall in their teaching. This study aims to design, develop and evaluate the effectiveness of using "Catch and Keep " through Wordwall platform in improving English as Second Language (ESL) learners'

vocabulary. This study also investigates to what extent "Catch and Keep" helps in improving vocabulary mastery.

Thus, the researchers attempt to discuss the following aspects of Catch and Keep through Wordwall in this article. The aspects are design, develop and evaluate the effectiveness of using "Catch and Keep" through Wordwall in vocabulary teaching and learning. By using this innovation, teachers could make a wiser decision in integrating Wordwall in their own classroom context and pupils will have an improved gamified learning quality.

This study answers the following research questions:

1. Does "Catch and Keep" through Wordwall improve English vocabulary mastery among Year 3 primary school pupils?
2. What are the Year 3 primary school pupils' perceptions on the use of "Catch and Keep" through Wordwall in learning vocabulary?

2. LITERATURE REVIEW

2.1 Vocabulary in English Language Learning

Vocabulary mastery is the foundation of mastering English language skills which are listening, speaking, reading and writing. According to Kanellopoulou et al., (2019); Moody et al., (2018), the process of developing an individual's vocabulary includes noticing, retrieving, and creatively utilizing specific words. When learners come across unfamiliar words or phrases, it encourages them to learn new vocabulary. (Atikah & Rezki, 2018; Boers et al., 2017) also argues that the more often words are retrieved, the easier the words embed deeply in learners' minds. As mentioned by Anggrarini (2018), listening and repeating the words in the learner's mind accounts for 40% of vocabulary acquisition activity. Vocabulary acquisition is a challenging task, especially for English as a second language (ESL) students, according to practitioners and experts. Besides, according to Afzal (2019), non-native English speakers experience difficulties with new word definitions, spelling, pronunciation, proper word usage, guessing meaning from context, and other issues. Nejati et al., (2018) also agree that ESL learners with low vocabulary are more likely to struggle with comprehension of basic reading materials, as well as understanding and applying grammar rules while using the language. Sidek and Ab. Rahim (2015) points out that a lack of vocabulary leads to problems with other language skills such as listening, reading, writing, and speaking since vocabulary competence is useful for effective communication.

2.2 Gamification in English Language Learning

Gamification is a new concept which uses the elements of digital games that can be applied in English language classrooms. Gamification has been defined as application of characteristics frequently associated with video games in non-game settings. Pedagogical approaches, methodologies, and techniques are used in the utilization of Gamification in

educational contexts for second language learners (L2) learning. Based on the previous studies focusing on gamification, researchers have been using the psychological foundation of Self Determination Theory, Flow-Theory and Self-Efficacy Theory (Cherry, 2017; Tandon, 2017). These three perspectives, combined together, pave the way for the potential benefits of gamification. Juho Hamari (2017) published research that linked game design and motivation, bridging the gap between learning theories and gamification design. According to the research, the number of studies linking learning and motivation has expanded significantly in the last eight years, demonstrating the interest in and possibilities of what gamification has to offer Hamari et al., (2017).

Andreani and Ying (2019) also discovered that interactive online games improved the language learning experience for EFL elementary students with poor competency. Especially after the introduction of a mobile application in vocabulary acquisition, students' English vocabulary competencies have improved. As stated by Bakhsh, (2016); Chapman & Rich, (2018), thinking is integrated into online games to solve problems and engage students in interactive learning. According to studies by Letchumanan et al. (2015) and Azli et al. (2018), pupils enjoy learning English more when they use mobile games. Thus, gamification is a new idea or concept which is reliable and suitable to be applied in English Language learning specifically in vocabulary mastery.

2.3. Wordwall in vocabulary learning

Wordwall can be the best game platform for practising vocabulary as it provides a wide range of gaming formats that are both beneficial and entertaining to the target group of pupils, which in this case is primary school pupils, (Hasram, et al. 2020). According to Brabham and Villaume (2021), "teachers can utilise Wordwall to encourage word analysis, provide models on incorrect spellings of words, or develop vocabulary for their topic of study,". This argument is also supported by Max Brand (2014), which stated that "Wordwall supports students' vocabulary development". In contrast, it is important to select a game that is both engaging and linked with the learning objectives, as there are games that have pedagogical content but little enjoyment, Jantke and Hume (2015). A thorough selection of learning materials is important for the successful integration of learning theory into mobile learning, which can successfully combine teaching with enjoyment, capturing pupils' attention and increasing motivation to study.

As stated by Pearson et al., (2017), vocabulary learning can be improved if we address the gap by actively and systematically teaching vocabulary to pupils. Different learners with different needs and characteristics should be provided with an adaptive and personalized education system to cater the needs. Thus, four modules are necessary to give personalised content; The expert module is in charge of the expert model's domain knowledge as well as the system's internal knowledge base layout. Next, the pupil module is responsible for collecting relevant information about pupils and storing it in the student model. The tutoring module is in charge of selecting learning materials based on the needs of the students, while the interface module is in charge of presenting relevant resources.

3. METHODOLOGY

This empirical study was participated by 30 year 3 pupils. The instruments used in this research are pre-test, post-test and a survey form which has been validated by 1 English Language lecturer and 2 Senior English Language teachers from a primary school. The data is then analysed by tabulating the descriptive analysis which is the frequency distribution shown in percentages. The development of the innovation is based on the ADDIE model to systematically produce the game modules. Before the innovative intervention, participants were given a pre-test consisting of 25 multiple-choice questions related to vocabulary topics in the Get Smart Year 3 textbook. The pre-test was designed to measure the ability of the students in improving vocabulary before applying “Catch and Keep” through Interactive WordWall.

The innovation is then designed and developed by altering its content and structure to the pupils’ characteristics and needs. English Year 3 Get Smart Textbook is used as a reference in designing and developing “Catch and Keep ” through Wordwall templates. The “Catch and Keep” is arranged in a progressive module employing the usage of QR codes. QR codes are being used in language classrooms to share learning materials with students. Teachers may input all of the learning materials into these codes, and students can then scan the code to get the resources they need, (Kar & Kim, 2021). The first module uses *Find the Match* and *Hangman*, the second module uses *Conveyor Belt* and *Group Sort*. The third module uses *Unjumble* and *Quiz*. These game templates have embedded audios and media, such as soundtracks and animations and pictures. The selection of game template and content is in accordance with the theories stated above. Firstly, the pre-test is conducted. Then, the first intervention took place in the next class session. The second and third round of intervention was carried out in subsequent classes. The application of the innovative intervention is done during the lesson process in online classes through the Zoom application. The post-test consisted of 25 multiple choice questions similar to the pre-test that was carried out on the next class. The post-test is designed to see the result of the study after applying “Catch and Keep” innovation. The data is further triangulated by document analysis and a feedback survey was carried out. The feedback survey employed in Google Form consisted of 10 items which were adapted from Maphosa, Dube and Jita (2020) which uses the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The survey questionnaire consisted of two main parts which are part 1, the background of the participants and part 2 is the participant’s views regarding “Catch and Keep ” innovation which employs 3 scales, Agree, Not Sure and Disagree. The QR code layout of the innovation can be seen in figure 1, while the example of the developed games using Wordwall templates can be seen in figure 2.

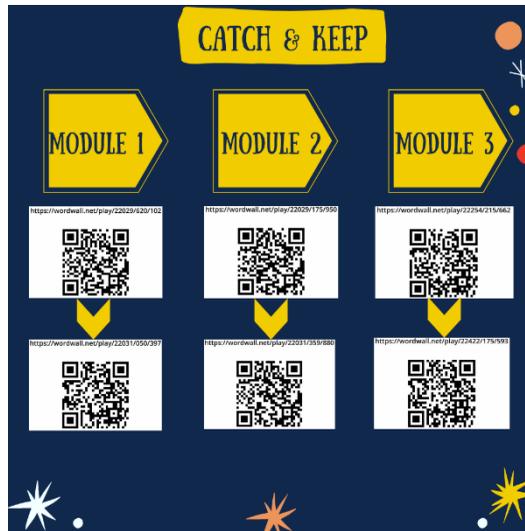


Figure 1: Catch and Keep QR code layout

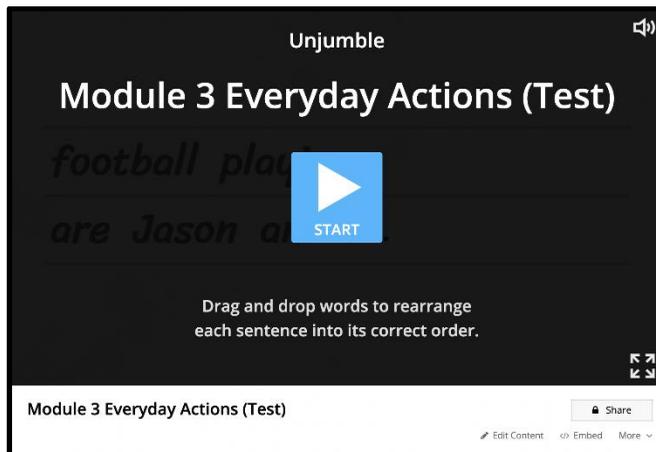


Figure 2: Game sample

4. RESULTS & DISCUSSION

This study aims to design, develop and evaluate the effectiveness of using “Catch and Keep ” through Wordwall in improving English as Second Language (ESL) learners’ vocabulary.

Table 1: Pre-Test and Post-Test Result

TABLE 1: PRE-TEST AND POST TEST RESULT			
GRADES	MARKS (%)	NUMBER OF STUDENTS	
		PRE-TEST (F)	POST-TEST (F)
A	85-100	3	28
B	70-84	3	1
C	60-69	4	1
D	50-59	2	0
E	40-49	12	0
F	0-39	6	0

Table 1 represents the results for the pre-test and post-test of the participants. The grades given were based on the Malaysian Education system which the pupils respective scores belong to a certain grade. The highest grade is A followed by B, C, D, E and F. The last grade, F, is considered a failure. After the intervention of “Catch and Keep” through WordWall, the pupils' grades improved drastically whereby no pupils scored F in post-test compared to pre-test where 6 pupils failed the vocabulary test. Based on the result, 28 pupils scored A in the post-test where only 3 pupils managed to score A during the pre-test. According to Hamari (2017) gamification bridges the gap between learning theories and gamification design. Andreani and Ying (2019) also discovered that interactive online games improved the language learning experience for EFL elementary students with poor competency. As stated by (Bakhsh, 2016; Chapman & Rich, 2018), thinking is integrated into online games to solve problems and engage students in interactive learning. Thus, gamification is an idea or concept which is reliable and suitable to be applied in English Language learning specifically in vocabulary mastery. Thus, the improvement in the score showed that “Catch and Keep” successfully improved pupils' ESL vocabulary mastery.

Table 2: Pupils' Perception on "Catch and Keep" through Wordwall

QUESTIONS	AGREE (%)	NOT SURE (%)	DISAGREE (%)
PERFORMANCE EXPECTANCY			
1.Using "Catch and Keep" through Wordwall improves my vocabulary.	100		
2.Using "Catch and Keep" through Wordwall increases my learning motivation and interest in learning English vocabulary.	100		
EFFORT EXPECTANCY			
3. I find "Catch and Keep" through Wordwall is easy to use.	96.67		
4. I am not comfortable using "Catch and Keep" through Wordwall.		3.33	96.67
SOCIAL INFLUENCE			
5. I think that "Catch and Keep" through Wordwall platform is an updated learning style.	100		
6. My teacher, family and friends supports me to use "Catch and Keep" through Wordwall	76.67	23.33	
FACILITATING CONDITIONS			
7. I have gadget and internet connection to use "Catch and Keep" through Wordwall.	100		
8. I know how to play the games in "Catch and Keep" through Wordwall.	100		
BEHAVIORAL INTENTION			
9. I would like to use "Catch and Keep" through Wordwall in my future learning activities.	96.67	3.33	
10. Learning vocabulary through "Catch and Keep" through Wordwall is a good idea.	96.67	3.33	

Table 2 depicted 30 primary pupils' perceptions on 'Catch and Keep". Following the UTAUT construct, most of the pupils have positive responses toward the intervention in helping them to improve their vocabulary mastery. "Catch and Keep " innovation was evaluated for performance expectancy and 100% agree that this innovation does improve their vocabulary. Besides, all of them also agree that the innovation does boost up their motivation in learning English vocabulary. Pupils also have a positive attitude toward effort expectancy as 29 out of 30 respondents agree that "Catch and Keep " is easy to use and only 1 responded not sure. Plus, only 1 of them are not sure whether they are comfortable or not using the innovation and the rest disagree with the statement; I am not comfortable using "Catch and Keep " through Wordwall. In terms of social influence, the results depict that all of them agree that this innovation is an updated learning style and 23 out of 30 of them also agree that their family, teacher and friends support them to use "Catch and Keep " through Wordwall while 7 others are not sure. High adoption rates that are related to facilitating conditions, where 100% agree that they have enough gadgets and internet connection to join the innovation and 30 respondents also agree that they have sufficient knowledge and know how to play the games in "Catch and Keep ". Lastly, when measuring behavioral intention, only 1 out of 30 respondents not sure either will use the innovation in future learning activities while the rest agree to apply it in their future learning. 96.67% also agree that learning vocabulary through "Catch and Keep " through Wordwall is a good idea.

According to (Hashim et al., 2019; Laremenko, 2017), gamified learning is motivating and encouraging. As stated by Letchumanan et al. (2015) and Azli et al. (2018), pupils enjoy learning English more when they use mobile games. As a result, based on the UTAUT model, pupils have positive feedback and are determined to use "Catch and Keep" in their learning.

5, CONCLUSION & RECOMMENDATION.

Conclusively, the usage of "Catch and Keep" has positively impacted the improvement of vocabulary mastery among Year 3 pupils. The significant increase in the

post-test marks is a good indication that "Catch and Keep " should be applied in learning sessions especially in an ESL classroom during online learning. This innovation is also recommended to be used in a normal face-to-face classroom as the feedback on the usage of "Catch and Keep " has greatly positive feedback where the majority of the participants think that "Catch and Keep " is a good idea. This study however is only limited to pupils with good access to internet connection and proper gadgets. Future research should focus on making the innovation available offline. Future research also can focus on the impact of "Catch and Keep" for higher levels of study, in secondary schools or in tertiary education. It is critical to understand the purpose of instilling games in language teaching and learning when designing and developing games to ensure that the games produced will increase learning quality and have a good consequence. Thus, "Catch and Keep " has successfully caught and kept pupils' vocabulary knowledge and learning motivation during remote learning during a pandemic.

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