THE POWER OF WEB-GAMES : IMPROVING STUDENTS' VOCABULARY MASTERY IN A FUN WAY

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Abstract

The usage of the web application "WordWall Games" as a tool for learning vocabulary is examined in this article. The purpose of the study is to assess the participants' capacity for improving their vocabulary memorization, sentence construction, and pronunciation. Three research questions are addressed in this study: How does WordWall game design help students grow their vocabulary? How does WordWall gaming application fit into vocabulary education? How do students learn new words after using WordWall as a teaching tool? Ten Senior High School students at Academica Education Learning Course who were study participants were directly observed by the researchers in order to gather data for this study. The following six game-based media were used: anagram tasks, translation tasks, true-or-false tasks, crossword games, random card games, and construct word tasks. The study's conclusions show that employing WordWall games as a teaching aid helps students' memory, sentence structure, and pronunciation.

Keywords: Online-based learning; *wordwall games;* vocabulary learning

INTRODUCTION

Learning vocabulary is a crucial part of learning the English language. Learning vocabulary is essential to mastering grammar, syntax, and pronunciation (Suparmin, 2017). When learning vocabulary, students must write the words down and memorize them in front of the class. They must also typically employ spelling drills, textbooks, listening exercises, and taking notes as teachers explain (Yu, 2018). This type of phenomena is still taught in vocabulary classes in a traditional way. Because they must memorize it in a set amount of time and with several words, the majority of kids experience boredom and disinterest (Devanti & Amalia, 2018). Students therefore require a variety of activities in order to expand their vocabulary and create engaging learning environments.

Games have recently been hailed as useful teaching tools for English, particularly for vocabulary acquisition, since game-based learning fosters students' creativity and knowledge (Rohmah, 2012; Rohmah, 2013; Shiddiq, 2021). Additionally, engaging with gaming media can create a fun and inspiring environment (Aini, 2020). When playing games to acquire vocabulary, pupils experience curiosity and challenge. Students that participate in game-based learning experience emotional reactions as they consider solutions and overcome problems in the game. This is consistent with earlier research by Yuniarti and Rahkmawati (2021), which found that during the learning process, games aid in problem solving, the development of critical thinking abilities, and judgment. Furthermore, research by Kherzlou et al. (2017), Alzahrani and Roberts (2021), Munoz et al. (2021), and Perez (2022) revealed that the use of audio clips and media with moving objects or images (animation) as game media can make learning more interactive for both teachers and

students, particularly when it comes to enhancing vocabulary mastery. Prior research demonstrates that game-based learning improves students' language skills, especially in vocabulary knowledge.

WordWall is one of the game programs built around interactive, educational quizzes (Shiddiq, 2021). Crossword puzzles are typically seen in periodicals or newspapers. But thanks to advancements in technology, crossword puzzle games are now available through the WordWall app. To enhance the visual appeal of the media, the WordWall program incorporates voice modes, graphics, colors, moving visuals, sound, and music. Teachers and students can simply access WordWall at any time or place by using it. Additionally, as the game features can be used as reference material in case students are having trouble identifying the relevant vocabulary, students can learn new language abilities in an easy-to-remember manner (Yuniarti & Rahkmawati, 2021). Match up, Open the Box, Random Cards, Anagrams, Labeled, Categorized, Quiz, Find the Match, Matching Pairs, Missing Word, Wordsearch, Rank Order, Random Wheel, Group Short, Unjumble, Gameshow Quiz, Maze Chase, and Airplane are among the eighteen interactive games offered by the WordWall application. Their game designs are unique and captivating, and numerous users have expressed that this application can enhance the interactive learning experience for students (Shiddiq, 2021).

According to a prior study, the prevalence of traditional education in an age of sophisticated technology will lead to less effective learning environments (Li, 2021). However, pupils' dependence on technology during learning is impacted by excessive use of it (Devanti & Amalia, 2018). According to Kacetl and Klimova (2019), technology is generally acknowledged as a tool to aid in language learning. Moreover, Kacetl and Klimova (2019) claimed that technology aids in the development of all linguistic abilities, particularly the retention of newly learned vocabulary. Thus, it is quite advantageous to use technology to help students' education. As a result, some individuals are still discussing whether or not this instructional game would boost drive, confidence, and a more thorough language grasp. Thus, the goal of the current study is to demonstrate how technology, particularly the WordWall Game app, can help students become more proficient language users and increase their vocabulary.

It is anticipated that this study will validate the enormous potential of game-based learning to dramatically boost vocabulary acquisition. The purpose of this study is to determine whether or not WordWall games are suitable for vocabulary instruction. The research questions are formulated as follows: How is the design of the *WordWall* games to develop students' vocabulary? How is the application of the *WordWall* games in the teaching of vocabulary? How do the students acquire new vocabulary after being taught using the *WordWall*?

METHOD

Research Design

This study's use descriptive qualitative research design. Qualitative descriptive research, according to Cohen, L. (2017), is a type of study design that focuses on summarizing the lived experiences and views of individuals and groups. By using exacting techniques for data gathering and analysis, it seeks to offer a thorough, in-depth explanation of the phenomenon under study. The applicability of current

events and circumstances to the analysis of Wordwall games in vocabulary learning led to the use of a qualitative descriptive design for this study.

Research Site and Participants
Ten senior high school students English courses at Académica Education Lerning Course participated in this study. The majority of students enrolled in this program have basic skills, particularly in English.

Data Collection and Analysis
The researchers used triangulation of data sources to gain specific information gathered through semi-structured in-depth interviews and observation. The purpose of this study's observation method is to watch how well participants can pick up vocabulary through WordWall games. Classroom observation, with the researcher acting as the teacher in the classroom, is the research tool utilized in this study. WordWall games were presented by the researcher as the medium with the subject of "transactional activities," and five different game categories were chosen for the participants: anagram, construct words, translation tasks, random card games, and crossword games. The participant's vocabulary skills from before and after learning the content will then be compared and evaluated by the researcher. To see if there is an improvement in learning, the results of the two activities will be compared and examined. The effectiveness of WordWall games as a vocabulary-learning tool will be determined by the final scores. After the learning process is over, the researcher conducts semi-structured in-depth interviews with the participants to look into their perceptions. The semi-structured in-depth interviews are meant to help the researcher get insight into the participants' perspectives following the use of WordWall games as a vocabulary-learning tool.

The claim made by Newby (2004) that semi-structured in-depth interviews allow the interviewer and the subject to go deeply into a particular issue is consistent with this. As a result, it will support the researcher's description of how the participants felt about the instructional materials they utilized.

FINDINGS AND DISCUSSION
Findings
The results provide insight into the creation of WordWall games, the use of WordWall media in vocabulary instruction, and the evaluation of students following WordWall instruction.

The Multimodal Design:The WordWall Games
The Wordwall program is the game-based learning tool utilized in this research. With a variety of gaming aspects, this program is made to assist vocabulary or language acquisition in an entertaining manner. The teacher in this observation class employed five different game types to help the students learn vocabulary in English. These include crossword puzzles, random card games, translation tasks, anagrams, true or false tasks, and construct word tasks.

Anyone can use the WordWall application, but educators in particular can benefit from it as a fun and instructive digital resource for game-based learning. A number of services offered by the Wordwall apps are available for both free and

premium use. While free features limit access to media usage, premium features offer a wider selection of media games. However, in this study, the researchers make use of the premium service to cover a wider variety of games and provide educational activities based on the needs of the classroom.

The Random Card Games are the first media in the Wordwall app. This game, which may be used as a teaching tool in the classroom, is shaped like a poker card and is made out of printed or origami paper. But these random card games are digital in nature, and you can only play them on computers or cellphones. Words on transactional activities are purposefully chosen to generate the Random Card Games. Twenty transactional behaviors are contained in the words, such as aisle, buy, pricey, etc. When the media is prepared for use in the classroom, the researchers send the students the URL to the game, which they can access by entering their username. By filling out the identity form, teachers may easily keep an eye on which pupils have clicked on the link and grade their work.
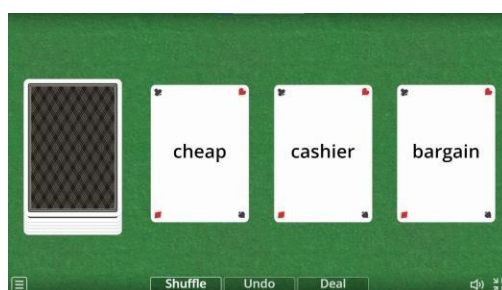

Figure 1. The Random Card Design

The digital crossword game is the second form of media. This game, which is comparable to the one that is mainly featured in magazines or newspapers, asks players to fill in the squares with the definitions of shopping-related terms from the glossary. In order to respond to the question, players of online crossword games must simultaneously click the word in each square. Digital crossword games come in a variety of vibrant design choices. Cartoon design, space design, sky design, monochrome design, and plain design are the five available design options. Because the target pupils are adults, the researchers opted for a straightforward design that omitted cartoon characters. Instead, the design was chosen with the target users in mind.

Figure 2. The Crossword Games Design

Students must match the text with the images on the screen in the third medium, the True or False Task. Students must click True when the sentences and photos match, and they must click False if the pictures they saw contradict the statements. After reading the statement for a set amount of time, the students must indicate whether or not it is true. Following completion of the questions, the scores of each student will be displayed, and they can use the solution key as a resource for additional learning.

Figure 3. The True or False Task Design

Construct Word Task and Translation Task are the fourth and fifth medium. Students are asked to arrange random words related to shopping in a certain order and interpret the word arrangement, such as "milk-a-at-want-section-buy-diary-to-I," in these mediums. Students have to drag each word separately until the sentence is correctly put together. If the sentence construction is correct, the pupils can go on to the next random word. The kids are stuck on the same page and are unable to go even if the response is still incorrect. The Anagram Task is the last medium. Students must arrange random letters in the appropriate sentences using this media. The correct sentence, "We are moving to the third aisle," for instance, was randomly selected to become "ew – ear– ivomgn–ot– drthi– least." To create the correct word order, the pupils must compose letters one by one. If every word in the random sequence has been composed, the sentence structure will then be completed. When the pupils performed the long words for instance, "bargain" scrambled into "general" this medium confused them. This exercise has the benefit of allowing users to increase their level of difficulty.
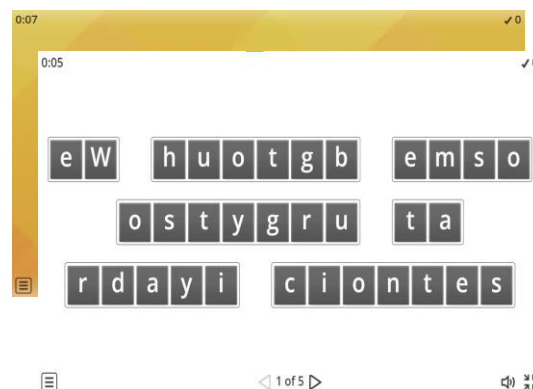
Figure 4. The Construct Word and Translation Design

Figure 5. The Anagram Task Design

The implementation of the Word Wall games in the vocabulary

Mastery in recalling, translating, and applying the right vocabulary based on context are among the goals of incorporating WordWall game-based media into

vocabulary acquisition. Three key learning objectives are included in the 60-minute learning implementation:

Pre-activity instruction is the initial phase. Two warm-up activities comprise the first pre-activity stage: crossword games and random cards. During the Random Card activity, the students were given a card at random from the grocery shopping vocabulary and were instructed to speak each word. After receiving three unfamiliar vocabulary items, each student attempted to pronounce them as best they could. This helps students remember the vocabulary related to grocery shopping, which they might have forgotten in the past because some of them were unfamiliar with it. While some students were ashamed when they had to pronounce the terminology in front of their peers, others were rather animated and excited. Following the teacher's example of correctly pronouncing the word, the students had to repeat it aloud. With this exercise, we hope to increase their self-assurance and overcome their anxiety of trying new things, particularly when it comes to pronouncing the language in front of the class.

The students looked through the pre-existing keywords in the random box to choose language that could help them recall what they had studied in the first session. The name of this game is Crossword Game. Students were asked to locate the terminology they had found in the first session as part of the activity. Simply access the games, they need to click on the shared link. After identifying twenty keywords, the students spent the next five minutes assiduously gathering each random word one by one. At the conclusion of the lesson, the students who had identified all twenty vocabulary words on the list were rated from first to last. After the allotted time, the students could view the score.

The primary task that comes next is watching videos. The researchers included a link (https://www.youtube.com/watch?v=NG-de6quWkE&t=241s) to a movie they shared from the English learning website Learn English with Bob the Canadian. The video, which has a man making a little vlog while grocery shopping, lasts for almost 5:18 minutes. The vlog features a man going food shopping while making relevant word mentions. For instance, the man says that grabbing the cart should be the first thing you do before entering the market. While displaying an image of the cart and indicating where the chart should be placed, the man uses the word "cart." Furthermore, he provides an example of how to pronounce the word "Cart" correctly in English. Following the viewing of the film, the instructor instructed the pupils to list any new terms they had learned and to enter them on their own vocabulary logs. The words and their meanings should be mentioned by the students. To assist children in understanding, they have access to both online and offline dictionaries.

The practice of some tasks is the next major job. The purpose of the activity is to find out how well the pupils can master vocabulary. The researchers gave the students 20 minutes to finish all of the activities after sending the links to the games in the WhatsApp group at the beginning of the activity. The kids were given five minutes to finish each activity before moving on to the next. By moving around the classroom, the researchers kept an eye on the students' performance and evaluated how quickly and accurately they responded. The True or False Tasks were the first task. The prior video's background helped the pupils determine the assertion. The answer is valid if the assertion is true; it is false if the statement does not match the answer. Following the display of each sentence separately, the students selected the

true or false option. Following that, the students played games where they had to construct random words and random letters (ConstructWord Tasks) (Anagram Tasks). The last two assignments are meant to help the students not only learn the vocabulary and how to pronounce it, but also to help them recall and write the words and letters in the right order. The researchers questioned the pupils which activities they liked or didn't enjoy once they had completed them all. Next, based on the outcomes of their labor, the researchers recorded the scores of the students and asked them.

The students were requested to give an oral reflection on the final class session by the researchers at the conclusion of the teaching phases. Following that, the researchers inquired about their interests in the video, what they like about the content, and if the activities were simple or complex. Since they discovered several new words that they had learnt, all of the kids indicated that they loved the learning topic, the games, and all of the activities that were done throughout the entire session. For instance, many were unaware that the word "aisle" is a synonym for the "corridor" of a grocery store. It implies that they have the opportunity to expand on their new vocabulary and word synonyms. Additionally, the researchers inquired about their preferred media type. A few acknowledged that they had never used the WordWall games in class before. The researchers deduced from the students' straightforward reflection that they are engaged, enjoying, and paying attention to vocabulary learning using multimodal media, games, and videos.

Students Vocabulary Mastery Using the WordWall Games

The evaluation of every student is a crucial part of demonstrating the value of wordwall games in vocabulary instruction. Three components of vocabulary mastery are used to evaluate participant assessment: word translation, word memory, and sentence construction. By comparing the participants' ratings before and after the activity, the researcher evaluated the individuals. Based on the highest score received by participants who finished 20 questions in under five minutes, the pre-activity evaluation was conducted. The pupils whose scores are less than 10 points are listed below. It was determined that nearly all students fell short of the memory evaluation goal. The pupils with a score of less than ten points are shown in the following table:

Discussion

The study's findings demonstrate how WordWall games might enhance vocabulary knowledge in English. This supports Shiddiq's (2021) assertion that wordwall games help students, particularly those who are just beginning to learn vocabulary, by emphasizing the words that are crucial to completing the game's goal. This study backs up Li's (2021) claim that kids can learn more quickly in an enjoyable environment by playing games. Students' enthusiasm in learning is also determined by the design. The game concepts are available in Wordwall programs with different components. Students and teachers can use the application more easily because of its straightforward design. The games' elements are also diversified and simple for players to comprehend.

The six media's designs have been modified to support language learners in learning the language by taking into account their backgrounds and enabling them to speak only basic English. The media design is kept as basic as possible, omitting

a lot of graphics and vibrant elements in favor of enhanced elements, linguistic elements, vocabulary, and educational themes. To make media information simpler to notice and remember, the researchers used vibrant audio-visual elements. This is consistent with Lin and Yu's (2017) findings that students may do better on the post-test if texts and pictures are shown together. As a result, playing games in class helps pupils learn language.

The pupils' high levels of excitement for vocabulary learning were evident from the outcomes of using Wordwall media. This is a result of the kids' lack of exposure to game-based digital media for language acquisition. The variety of learning approaches is enjoyable to them. The kids expressed during the class how interested they were in this media. Some claimed that because the media matched their age group, it was special. This generation found it impossible to learn without their electronics. This is consistent with research by Kacetl and Klimova (2019), which found that people could not function without mobile devices since they use them on a regular basis for a variety of tasks, including language learning. When kids have to memorize vocabulary in a boring way, they get bored. Because audio-visual and verbal elements are combined into one medium at the same time in game media, audio-visual-based games are simpler to recall. Students' complete engagement in the learning process demonstrates their interest. They actively work on assignments, games, quizzes, and directions during the learning sessions. Their answers evaluate whether the media being used is according to the learning objectives.

However, Khezrlou and Sadegi (2017) noted that there are a number of obvious difficulties with using mobile technology in the classroom. According to their findings, students would rather use more conventional instructional technologies in order to engage and learn well. Students who use mobile technology face a number of difficulties, one of which is their distaste for the shortcomings of the current infrastructure. For instance, there could be erratic and sluggish internet service. This reaction is consistent with a study by Rahman (2015), which found that intermittent electricity connections and sluggish internet are issues when utilizing technology for learning since schools forbid students from using it for academic purposes. This also occurred upon the researchers' arrival in the classroom. When completing homework, several students' devices were not online, and the university did not offer reliable internet connectivity. Students' chances of receiving perfect scores are limited as a result of the shorter task completion times. This phenomenon demonstrates that applying technology-based media to education is not always practical. This turns into an assessment of the condition of the classroom, and additional supplies need to be set up. The instructor also needs to remind the students to use their allotted internet time before class begins (Rahman, 2015).

Each student completes each learning task on their own during the program. The evaluation is predicated on the student's comprehension of the subject matter as demonstrated via YouTube videos of grocery shopping. They acknowledge that they understand the teacher's explanations in the video, including the language used, the storyline, and the context of the discussion. The pupils' primary tasks within a time constraint began the exam. The pupils are under pressure to do their assignments within the allotted 20 minutes. Furthermore, a few pupils encountered unforeseen circumstances such trouble connecting to the internet. Given that the time allocated differed from that of the other friends, it is not entirely clear how the professors should take the marks. Because the applied timer in the program cannot be adjusted on its own, the time

allocation cannot be altered. This circumstance is consistent with earlier research by Kacetl and Klimova (2019), which explains that time-related, design-related, and other issues are always present in mobile applications for English language acquisition. As a result, the teacher will have difficulty assigning an overall score because of this.

When students are required to construct sentences using recently acquired vocabulary, it presents another challenge to their learning. They are embarrassed by the way they pronounce the language and are anxious that the sentences they are creating are not totally accurate. Because of the uneasy atmosphere and the fact that they were the focus of attention from other pupils, the students felt uncomfortable speaking their minds in front of the class. The researcher should assess this issue and think about creating a more welcoming environment in the classroom to help the pupils feel less anxious. Increasing the number of pair work discussions that students have in class is one method to make this better. According to Marlena et al. (2015), the use of pair work in the classroom would create a cooperative environment where students would share giving and receiving, communicate with one another, and listen to one another. These conditions will encourage the mindset, demeanor, and behavior that permits positive dependency. Additionally, Milal et al. (2020) confirm that students can learn and collaborate through pair work in cooperative learning. Furthermore, according to Sadipun (2020), the think-pair-share paradigm helps students develop self-assurance in their capacity to solve mathematical issues, which in turn lessens the fear that they frequently feel.

CONCLUSIONS AND SUGGESTION

Specifically, the six games of Random Card Games, Crossword Games, True or False Tasks, Translation Tasks, Construct Word Tasks, and Anagram Tasks might help children acquire vocabulary more effectively than they would otherwise. Their enthusiasm and self-assurance in their ability to master vocabulary were affected by the effects of the media's introduction in the classroom. Additionally, evidence suggests that technology-based media particularly games influences the development of memory, translation, and sentence structure. It should be highlighted that although there were occasional difficulties with acquiring vocabulary, pupils responded well to the lessons and the process was not greatly hampered. The teacher evaluates learning based on the learning challenge. So, at the following meeting, the instructor can correct it. To address the shortcomings of this study, more research is required, particularly to address learning challenges and provide solutions for time management and classroom scenarios involving the use of game media in vocabulary instruction.

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