

Investigating the Efficacy of Wordwall Platform in Enhancing Vocabulary Learning in Saudi EFL Classroom

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ABSTRACT

Vocabulary is crucial for mastering English as a Foreign Language (EFL) skills. Digital Game-Based Learning (DGBL) platforms like Wordwall can enhance active learning by providing multiple-choice, missing, and matching words. The current study aimed to address the impact of the Wordwall platform on EFL learners in Saudi Arabia. This study utilized a quasi-experimental design to investigate the use of Wordwall technology in English as a Foreign Language (EFL) teaching. Two EFL teachers were divided into experimental and control groups, with 60 students aged 16-17 in first secondary schools. The experimental group used Wordwall to enhance vocabulary learning, while the control group used traditional methods. The studyer used SPSS to analyze data and compare experimental and controlled groups. The results showed significant variations in mean scores between the pre- and post-test phases.

KEYWORDS

English as a Foreign Language (EFL), Vocabulary Learning, Wordwall, Gamification, Technology

INTRODUCTION

Acquiring vocabulary plays a crucial role in learning English as a foreign language (EFL), as it forms the foundation for mastering the four main skills of writing, reading, speaking, and listening (Girmen & Kaya, 2019). Vocabulary knowledge enhances communication skills and serves as a core component of achieving language competence, through mastery of new words (Dhaifi et al., 2020). Learning vocabulary in EFL classrooms, therefore, requires an interactive environment that enables learners to acquire and practice new words. Traditional methods that focus on teacher-centered instruction may not promote active learning, which in turn may result in passive learners.

Technological platforms can facilitate active classrooms, helping create an effective environment for vocabulary learning. Utilizing appropriate platforms in EFL classrooms can help learners acquire vocabulary in a supportive, appealing manner. The adoption of modern educational technology through digital games is a recent phenomenon in digital game-based learning (DGBL). Gamification can create an engaging atmosphere that enhances learners' experiences. Technological tools, such as iPhones and iPads, can provide games for practice, thereby supporting EFL teachers and learners in the classroom.

According to Phong (2020), incorporating game-based learning into EFL instruction is essential, as it is regarded as effective technological pedagogy in language classrooms. Phong reported that

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integrating gamification into EFL is highly effective, significantly increasing learners' motivation and reducing anxiety. Additionally, Abidah et al. (2023) stated that gamification effectively captures students' attention and improves their vocabulary acquisition in contemporary settings. They recommended that EFL instructors establish a connection between content knowledge and the gamification tools they employ. Consequently, utilizing game-based learning could benefit EFL learners in practicing their language skills.

Hasram et al. (2021) noted that rapid advancement in technology has led to widespread adoption of gamification. Gamification through mobile phones facilitates interactive learning; many teachers employ mobile applications as supplemental materials, as many students have their own cell phones. Hasram et al. (2021) highlighted that prior studies on using games in EFL vocabulary instruction have demonstrated their efficacy; employing games was shown to enhance student thinking skills and positively influence their desire to learn, reflecting their intrinsic motivation.

When teaching and learning vocabulary, DGBL encourages students to master the material through platforms like Wordwall, which offers games such as multiple-choice, fill-in-the-blank, and matching activities, while also increasing motivation and attention (Abidah et al., 2023; Safitri et al., 2022). Wordwall, as a gamification platform, assists learners in practicing vocabulary, making it an essential tool for EFL instruction. Such applications support vocabulary learning and help students remain motivated and engaged in their studies (Phuong, 2020). Primary school students often struggle with vocabulary comprehension, leading to a lack of reading skills (Wang & Yamat, 2019). Traditional teaching methods may not be as engaging as technological approaches, so can be ineffective if students lack the motivation to learn (Sidek & Rahim, 2015). Consequently, EFL teachers require new, effective methods to enhance student motivation and to help mitigate weaknesses in vocabulary comprehension (Mohamad et al., 2018). Students' writing and listening abilities can only improve when they acquire and retain new vocabulary. The online game Wordwall has been shown to increase student interest in language learning, helping them to become active learners. It enhances word retention and expands vocabulary, by matching words to pictures in a gamified manner to increase learner interest (Hasram et al., 2021).

Specific challenges arise when regarding EFL instruction in Saudi Arabia (Alsharif, 2022; Alshammari, 2022; Alahmad, 2020; Altalhab, 2019). Saudi EFL learners struggle to achieve high proficiency levels in English; researchers have asserted the low proficiency levels of Saudi EFL learners across all skill areas, and have attributed this to the pedagogical methods employed in many EFL programs (Alsharif, 2022; Alshammari, 2022; Alahmad, 2020; Altalhab, 2019). Enhancing EFL learning depends on the advancement and improvement of curriculum and teaching methodologies, as well as providing enough supportive resources. The methodologies for improving EFL instruction in Saudi Arabia must align with the needs of the next generation of learners. All supporting materials should incorporate technology, due to its wide applicability for learners. It is essential to improve EFL instruction and utilize resources that are shown to effectively assist contemporary EFL learners with improving English proficiency.

In many Saudi EFL courses, students lack creative, inspiring methods with which to improve their vocabulary (Al-Malki, 2022, Alharbi; 2020; Ali, 2020). This is primarily because most Saudi EFL teachers employ traditional teaching methods that predominantly rely on translation and rote memorization of word meanings. This leads to an ineffective learning environment and passive acquisition of EFL vocabulary, failing to provide opportunities for learners to fully engage with the English language. Previous studies on Saudi EFL learning (Alharbi; 2020; Ali, 2020) suggested that implementing innovative teaching approaches enhances learners' acquisition and comprehension of vocabulary. EFL learners require an engaging setting enriched with enjoyment and pleasure in the learning process. Gamification-based applications could aid Saudi EFL learners in improving their vocabulary and incentivizing their engagement. It is essential, therefore, to examine the influence of Wordwall on enhancing vocabulary acquisition and retention among Saudi EFL learners.

Although previous researchers have highlighted the significance of gamification in vocabulary learning (Alharbi, 2020; Phuong, 2020; Girmen & Kaya, 2019), a gap exists in examining how these applications can help Saudi learners enhance their vocabulary achievement in EFL classrooms. The study presented in this article addresses the need for further investigation into using Wordwall for EFL learners in Saudi Arabia. This study is significant, as it examines the effectiveness of an innovative technological game that may facilitate improved EFL learning. The research also benefits EFL teachers directly, by demonstrating the positive effects of using Wordwall in vocabulary acquisition. Additionally, this study may assist policymakers in recommending new technological tools that require appropriate training and to enhance EFL instructor competence in applying such tools.

This study's main research question is: What are the effects of Wordwall usage on the vocabulary achievement of EFL students in Saudi secondary schools?

LITERATURE REVIEW

Wordwall is a platform that fosters, through gamification, increased enthusiasm for learning; it also simplifies the pedagogical process. Language learners need to fully comprehend the meaning of each word they study; the Wordwall platform helps enhance such meaningful learning. Few studies have investigated gamification platforms and their effects on EFL learning thus far, but this study examines the impact of using Wordwall on learners' vocabulary performance in EFL.

The technological platforms used in EFL learning should be engaging. Çil (2021) stated that Wordwall is a gaming platform that facilitates interactive and individualized learning through simple instructions: matching words to the pictures, matching words to sounds, and word puzzles. Wordwall can be considered an engaging platform based on gamification, allowing learners to learn spelling, relate pictures to words, and understand vocabulary sounds (Çil, 2021). Hasram et al. (2021) stated that Wordwall could help learners organize their acquired vocabulary, enabling them to create a vocabulary dictionary; learners can then independently recognize the meaning of each word and utilize this vocabulary.

Wordwall is a resource for assisting learners in acquiring an extensive vocabulary, through interactive and visually stimulating presentations. It can improve vocabulary retention, spelling, and linguistic evaluation, enabling educators to assess student proficiency levels. Wordwall activities engage users in play, using numerous high-frequency words and visual components, thereby augmenting interest in learning through various, enjoyable formats. It enhances learning by incorporating new tasks, such as refining spelling through verbal and written expression. Furthermore, Wordwall can be downloaded onto iPhones or iPads, facilitating continued education beyond the classroom (Dhaifi et al., 2020; Mohinakhon & Diyora, 2022). Hasram et al. (2021) noted that the Wordwall platform enriched students' experiences regarding acquiring English vocabulary and supported comprehension directly and indirectly; it did this by using colorful pictures, illustrating definitions to strengthen spelling and word retention (Hasram et al., 2021).

Several prior studies examined the utilization of Wordwall for vocabulary acquisition. Çil (2021) investigated the impact of Wordwall on improving the vocabulary of fifth-grade EFL students in Turkey. The experimental study analyzed two groups and found significant differences between the pre- and post-tests for all groups. This suggests that the application of Wordwall in Turkish schools effectively taught EFL vocabulary (Çil, 2021). Abidah et al. (2023) assessed the extent to which DGBL enhanced student vocabulary through utilizing Wordwall. The research employed intentional vocabulary acquisition, where students examined specific terms from a list of test words. The study used a mixed methods approach, with a control group and an experimental group. The experimental group demonstrated an increase in average scores (from 44.83 to 63.45); the control group, however, did not. A lack of leisure time, poor internet connection, and intentional vocabulary learning was found to have contributed to this latter outcome. The respondents agreed that DGBL had the potential to enhance vocabulary, increase motivation, and reduce boredom. The outcomes of this study

corroborated prior research that implemented DGBL to enhance student vocabulary development; nevertheless, the vocabulary acquisition results achieved by the control group in this study did not improve as significantly as those of the experimental group. The research concluded that DGBL was advantageous for vocabulary development by enhancing range, increasing motivation, promoting competition, and cultivating a positive environment (Abidah et al., 2023).

Additionally, another study conducted by (Dhaifi et al., 2020) investigated how gamification platforms have revolutionized education by providing opportunities for self-improvement and vocabulary expansion. In terms of vocabulary knowledge, students who demonstrated high levels of autonomous learning outperformed those who employed conventional methods. Autonomous learning is essential for vocabulary acquisition, and students capable of self-regulation are more proficient readers. The study of Dhaifi et al., (2020) underscored the unique learning approach of the Wordwall platform. One that required students to read brief stories, construct basic sentences, and complete their workbooks with a minimum of five nouns and verbs. The research concluded, as self-regulation and vocabulary size are positively correlated, that English teachers should explore additional strategies for teaching the simple present tense (Dhaifi et al., 2020).

Hasram et al. (2021) examined the efficacy of interactive educational games in facilitating language acquisition among students. Cross-sectional research was undertaken in a Negeri Sembilan national primary school, using the region's official English language curriculum for primary schools. The results indicated that pupils exhibited moderate levels of passion, focus, significance, assurance, and satisfaction; when Wordwall was utilized as an adjunct to the course, a significant positive difference in vocabulary scores was observed. The survey highlighted challenges faced by students who lacked reliable internet access and/or mobile devices, and suggested that stakeholders must provide sufficient devices and internet connection to address these issues. These findings may assist elementary school English educators in integrating online games into their curriculum to facilitate language acquisition, particularly in enhancing vocabulary. The study, however, is limited to the Year 5 syllabus and did not extend its findings to learners' perceptions of other online vocabulary games (Hasram et al., 2021).

Jannah and Syafriyadin (2022) investigated the perceptions of 298 eighth-grade students at a junior high school in Bengkulu Tengah in Indonesia, regarding wordwall.net as a game-based, online tool for vocabulary enhancement. Data was collected via a survey that was subsequently analyzed statistically using the Likert scale. The students demonstrated a preference for using wordwall.net for their daily vocabulary acquisition, evidenced by a questionnaire score of 1.578, as it facilitated their advancement in learning new words and fostered competition in class. The results indicated that most students viewed wordwall.net as a beneficial tool; one that fostered motivation, collaboration, and competition. Wordwall.net also influenced student engagement with both the online resource and the classroom in general, indicating improved focus on the learning process. The study's results suggested that wordwall.net improved pupils' vocabulary acquisition; the researchers strongly recommended that educators begin employing wordwall.net as a pedagogical tool (Jannah & Syafriyadin, 2022).

Educators need to understand the importance of implementing a gamified classroom that is both beneficial and effective for younger students. Magasvaran et al. (2022) examined how the Wordwall application could improve language learning in a study involving 30 primary school year 3 students with varying academic abilities; assessments were administered both before and after the intervention. A survey form collected student opinions of Wordwall serving as a valuable foundation. The results indicated that Wordwall effectively enhanced their vocabulary knowledge, providing a dependable and user-friendly resource. Most participants expressed satisfaction with the implementation of Wordwall stating that it enhanced their enthusiasm for studying English and broadened their vocabulary (Magasvaran et al., 2022).

METHODOLOGY

The study presented in this article employed a quasi-experimental design deemed the most appropriate method to address the research question and examine the effect of using Wordwall to enhance EFL vocabulary (Creswell, 2012). An experimental group and a control group were selected from a school in Makkah, Saudi Arabia. After obtaining approval from the ethical council of Umm Al-Qura University, the researcher proceeded with data collection. A school was selected based on easy-reach location. Two female EFL teachers, each teaching their own secondary school class, consented to participate in this study. The teacher for the experimental group held a bachelor’s degree in English and a Master of English Education, with 15 years of experience in teaching EFL; the teacher for the control group held a bachelor’s degree in English and had 13 years of experience in teaching EFL.

The study involved both the experimental and control groups from the same school, to ensure uniformity in external variables (Creswell, 2012). The instructor for the experimental group utilized Wordwall to enhance student acquisition of English vocabulary. The instructor for the control group taught EFL vocabulary using traditional pedagogical approaches that emphasize rote memory and repetition of new terms. The total number of participating female students was 60, with 31 in the experimental group and 29 in the control group. All students were aged 16 to 17 years, and enrolled in what is termed in Saudi Arabia, a first-year secondary school. The study took place during the third semester of 2024 and lasted eight weeks. Pre-tests were administered to both groups at the beginning of the term, and post-tests were conducted at the end of the term after the students completed the English course; these tests measured student vocabulary proficiency. The tests were administered using an online platform and students completed the tests under teacher supervision.

The assessment consisted of 20 vocabulary questions focused on recognizing and comprehending word meanings. The questions were multiple-choice and formulated according to the curriculum and the course textbook (Mega Goal 1 created by Santos, 2012) for the first secondary grade English language course. Upon completion of the test, EFL instructors commenced the English course as usual, but incorporated Wordwall as a facilitated platform to enhance vocabulary acquisition for the experimental group.

RESULTS

Comparison of Experimental vs. Control Groups

The Statistical Package for the Social Sciences (SPSS) was employed by the researcher to analyze the data and compare the experimental and control groups. Additionally, paired samples’ *t*-tests were implemented to compare the pre- and post-test date from both groups. According to Table 1, both the experimental and control group exhibited significant variations in mean scores between the pre- and post-test phases, shown by the paired samples statistics. The mean vocabulary score of the experimental group increased from 76.77 in the pre-test to 92.10 in the post-test, indicating a significant improvement. Although the control group also showed progress, it was not as pronounced, with their mean vocabulary score increasing from 83.62 in the pre-test to 90.86 in the post-test.

Table 1. Paired samples statistics

		Mean	N	Standard deviation	Standard error mean
Pair 1	Vocabulary experiment pre-test group	76.77	31	9.358	1.681
	Vocabulary experiment post-test group	92.10	31	6.680	1.200

continued on following page

Table 1. Continued

		Mean	N	Standard deviation	Standard error mean
Pair 2	Vocabulary control pre-test group	83.62	29	10.255	1.904
	Vocabulary control post-test group	90.86	29	5.521	1.025

Note. N = Number of Students

The standard deviations and standard errors reflected the variability and precision of the data. The experimental group demonstrated a significant reduction in standard deviation, indicating a more consistent improvement in vocabulary scores. This suggests that, in contrast to traditional teaching techniques, the incorporation of Wordwall improved English vocabulary learning.

The paired sample test demonstrated that both the experimental and control group exhibited significant differences in vocabulary test scores between the pre-test and post-test phases, as seen in the paired samples' *t*-test results, presented in Table 2. Within the experimental group, the standard error mean was 1.671, the standard deviation was 9.304, and the mean paired difference was -15.323. For the group using Wordwall, there was a statistically significant increase in vocabulary scores from the pre-test to the post-test phase, as indicated by the 95% confidence interval of the difference (-18.735 to -11.910), not including zero. The highly significant nature of this improvement was evidenced by the *t*-value of 30 with 30 degrees of freedom ($p < 0.001$).

Table 2. Paired samples test

		Paired differences					<i>t</i>	df	Sig (2-Tailed)
		Mean	Standard deviation	Standard error mean	95% Confidence interval of the difference				
					Lower	Upper			
Pair 1	Vocabulary Experiment pre-test group	-	9.304	1.671	-18.735	-11.910	-9.170	30	.000
	Vocabulary Experiment post-test group	15.323							
Pair 2	Vocabulary Control pre-test group	-	8.720	1.619	-10.558	-3.924	-4.472	28	.000
	Vocabulary Control post-test group	7.241							

Note. *t* = *t*-value ;df =degrees of freedom = Sig(2-Tailed) = *p*-value

The control group's standard error mean was 1.619, the standard deviation was 8.720, and the mean paired difference was -7.241. The group employing traditional teaching methods showed a statistically significant enhancement in vocabulary scores, from the pre-test to the post-test phase. The 95% confidence interval for the difference (-10.558 to -3.924), also excluded zero. The substantial importance of this enhancement was evidenced by a *t*-value of 28, with 28 degrees of freedom ($p < 0.001$). The results indicated significant improvements in vocabulary test scores for both groups; however, the experimental group using Wordwall demonstrated a more significant improvement than the control group utilizing standard teaching methods.

One-Sample *t*-Test for Experimental Groups

The experimental group’s vocabulary test scores were compared to a theoretical test value of 0 in Table 3 using a one-sample *t*-test. With a *t*-value of 45.676 and 30 degrees of freedom, the pre-test mean difference was 76.774, indicating a very significant difference ($p < 0.001$). The test value of 0 was excluded from the 95% confidence range of the difference (73.34 to 80.21), confirming the statistical significance of the higher pre-test scores.

Table 3. One-sample test

	Test Value = 0					
	<i>t</i>	df	Sig (2-Tailed)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
Vocabulary Experiment pre-test group	45.676	30	.000	76.774	73.34	80.21
Vocabulary Experiment post-test group	76.761	30	.000	92.097	89.65	94.55

Note. *t* = *t*-value ;df =degrees of freedom = Sig (2-Tailed) = *p*-value

The mean difference in the post-test phase was 92.097, indicating a highly significant difference ($p < 0.001$), with a *t*-value of 76.761 and 30 degrees of freedom. The statistical significance of the elevated post-test scores was evidenced by the 95% confidence interval of the difference (89.65 to 94.55), which excluded 0. These findings validated the effectiveness of Wordwall in enhancing EFL vocabulary acquisition, as the experimental group exhibited a statistically significant improvement in vocabulary test scores from the pre-test to the post-test phase.

One-Sample *t*-Test for Control Group

The pre-test phase showed a very significant difference ($p < 0.001$), with a mean difference of 83.621, a *t*-value of 43.910, and 28 degrees of freedom. The test result of 0 was excluded from the 95% confidence interval of the difference (79.72 to 87.52), indicating that the higher pre-test scores were statistically significant.

Similarly, a very significant difference ($p < 0.001$), was shown in the post-test phase, where the mean difference was 90.862, with a *t*-value of 88.628 and 28 degrees of freedom. The statistical significance of the higher post-test scores was demonstrated by the fact that the 95% confidence range of the difference (88.76 to 92.96), did not include 0. All these findings pointed to a considerable gain in vocabulary test scores for the control group between the pre- and post-test phases, but not as much for the experimental group. The statistical significance demonstrated the success level of the traditional teaching strategies used to improve EFL vocabulary learning in the control group. These results are shown below in Table 4.

Table 4. One-sample test

	Test Value = 0					
	t	df	Sig (2-Tailed)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
Vocabulary control pre-test group	43.910	28	.000	83.621	79.72	87.52
Vocabulary control post-test group	88.628	28	.000	90.862	88.76	92.96

Note. t =t-value ;df =degrees of freedom = Sig (2-Tailed) = p-value

DISCUSSION

This research examined the effect of using Wordwall in Saudi Arabian EFL classrooms to enhance vocabulary acquisition and retention. The results revealed significant positive findings for the experimental group, thereby demonstrating Wordwall’s effectiveness as a learning tool. This contrasts with a previous study by Artırmak et al. (2018), which found that using Wordwall had no effect on vocabulary learning in an EFL environment. The findings of the study presented here, however, align with the research of Alyaz and Genc (2016), and Medina and Hurtado (2017), where significant results were found across both the experimental and control group, with a particularly positive outcome noted for the experimental group.

Another important finding was that the experimental group exhibited a more substantial reduction in standard deviation. This suggests a consistent improvement in vocabulary scores, implying that the integration of the Wordwall technology tool enhanced EFL vocabulary acquisition when compared to conventional teaching methods. The findings of this study suggest that learners achieved high scores in the vocabulary post-test due to their motivation, which was enhanced using Wordwall. This implies that when learners are highly motivated, they tend to perform at a higher level in language learning, and vice versa. Previous researchers (Safitri et al., 2022) have stated that motivation is a significant benefit of using gamification in EFL and that using games to enhance learner motivation helps students participate more and thereby improve their learning. Additionally, gamification assists instructors in employing various strategies to facilitate effective learning (Ibad et al., 2023; Kapp, 2012).

A significant result of this study was that both groups experienced substantial improvements in their vocabulary test scores. However, the experimental group, which utilized Wordwall, demonstrated a more substantial improvement than the control group which employed traditional teaching methods. Previous research has confirmed the positive effects of gamification and how it helped learners find techniques to succeed in games (Seaborn & Fels, 2015). Engaging in games, therefore, can be beneficial, and also underlines how important it is that EFL teachers should adapt their learning environment according to learners’ needs and interests. They should, in fact, avoid traditional teaching methods, as these have a limited positive impact and often fail to engage students in meaningful communication.

Learning English vocabulary through the web is appealing to EFL learners, as it adds an element of fun to the learning process. Consequently, many studies have focused on the positive effects of incorporating web tools into learning to support vocabulary enhancement (Artırmak et al., 2018). Another benefit of online platforms and applications is that they allow learners to work in a relaxed environment, thereby fostering a meaningful learning experience (Artırmak et al. 2018). The experimental group in this study outperformed the control group and this may help EFL instructors recognize the beneficial impacts of utilizing Wordwall in EFL instruction. Additionally, Wordwall emphasizes vocabulary relevant to a subject. This may boost students’ self-assurance and

competitiveness, which in turn can have a positive impact on their academic performance. Vocabulary significantly influences an individual's capacity to read, write, speak, and comprehend, making it crucial for language acquisition, as mastery of vocabulary is vital for sustaining linguistic proficiency (Mohinakhon & Diyora, 2022).

Wordwall aligns with learner interests; addressing learners' needs and interests positively influences communication and motivation among EFL learners (Ibad et al., 2023; Ilahi et al., 2022). Similarly, Flores-Fernández and Durán Riquelme (2022) stated that communication and participation from EFL learners positively impacted their understanding, reporting that the Wordwall application enhanced student interactions during the learning process. Active participation helped learners take responsibility for their learning, which was then reflected in their achievements (Flores-Fernández & Durán Riquelme, 2022).

Previous studies investigated teachers' and learners' perceptions of using Wordwall, highlighting benefits and positive attitudes (Ibad et al., 2023; Pradini & Adnyayanti, 2022). The study presented in this article confirmed this. According to Ilahi et al., (2022), gamification technologies such as Quizizz, Kahoot, and Wordwall facilitated learners' engagement, cooperation, discussions, and negotiation of meaning. Integrating different technological platforms into learning helps meet learning needs. They enhance competence among EFL students, improve problem-solving and critical thinking skills, and promote student participation and collaborative learning (Ilahi et al., 2022). All these processes help learners acquire language skills. Although learning vocabulary is challenging, games can simplify the process. They make learning enjoyable and provide target words in meaningful contexts, aiding students in remembering new words more effectively. Game-based learning creates a conducive environment for language acquisition, as it allows students to practice current vocabulary through engaging activities (Ibad et al., 2023; Ilahi et al., 2022; Miftak & Fitriyana, 2023).

LIMITATION AND FUTURE IMPLICATION

There were significant results in this study regarding Wordwall as a gamification platform for vocabulary learning among Saudi EFL learners in secondary schools. Relying on Wordwall as the only gamification platform, however, limits the applicability of the findings. Given that the effects of other platforms on EFL learners vary. It is recommended that teachers use Wordwall and other online resources to improve EFL vocabulary acquisition, encouraging the exploration of additional gamification applications to assist EFL teachers in creating impactful learning environments. Gaming in education fosters interaction and communication among learners, thereby enhancing their educational experience.

The fact that only female teachers and students participated in the study is another significant issue, as incorporating both male and female learners into a sample group may provide different outcomes. Conducting research with male students to compare findings between genders is an invitation for further study. Another significant issue is that the selection of a single school could potentially indicate certain limitations in the study's findings. Additionally, only first-grade secondary students participated, and the small sample size of 60 pupils may have constrained the results. Consequently, it is suggested future studies focus on a greater number of students, in various age groups and genders, in order to examine and compare outcomes.

CONCLUSION

The results of the study can be summarized as follows: using Wordwall enhances learners' vocabulary learning and improves achievement levels. The learners in the experimental group performed at a higher level in the vocabulary post-test than those in the control group. Additionally, the experimental group achieved higher scores in the vocabulary post-test. These outcomes highlight the substantial impact of using Wordwall in EFL education. Employing Wordwall in vocabulary

learning may assist EFL instructors in implementing strategies that align with learners' requirements, thereby positively influencing the success of their students.

This research benefits EFL instructors as it offers a useful resource based on Game-based Learning that can inspire and motivate students to participate more and thereby enhance their language skills. With access to Wordwall, conventional teacher-centered teaching methods might give way to more creative and engaging student-centered instruction. According to this research, EFL instructors should provide their students more chances to connect and communicate through Game-based Learning, as this may improve their language proficiency.

In conclusion, this research confirms that gamification platforms improve English language proficiency, through indirect learning. EFL teachers should alter their classroom environment, depending on learner needs and interests, to engage pupils in meaningful learning. This study highlights the importance of using Wordwall in EFL teaching and its potential to improve the acquisition and retention of English vocabulary by EFL learners. Wordwall's function in EFL education highlights the beneficial influence of technology on vocabulary acquisition, stressing the significance of improving student outcomes and fostering meaningful vocabulary development.

Given the findings of this study, along with its acknowledged limitations, further research is required to determine how well various gaming platforms increase student achievement in EFL learning. Additionally, EFL teachers need studies that concentrate on younger primary school students, to enhance their understanding and utilization of Wordwall. Effective integration of gaming platforms may require training for EFL teachers to maximize the impact of each tool, however, and ineffective use of gaming platforms could be detrimental to students. Teachers, therefore, must understand the availability and accessibility of online gaming platforms to improve communication with their students. The professional use of gamification tools can significantly affect the efficacy of their implementation.

COMPETING INTERESTS

The author of this publication declares there are no competing interests.

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REFERENCES

- Abidah, L., Asih, R. A., & Widodo, E. (2023). Digital game-based learning as a strategy to expand vocational students' vocabulary: A mixed methods approach. *Journal of Education Technology*, 7(3). Advance online publication. DOI: 10.23887/jet.v7i3.64778
- Al-Malki, N. S. (2022). Integrating learning strategies for EFL learners' vocabulary enrichment and retention. *Linguistics and Culture Review*, 6(S2), 639–654. DOI: 10.21744/lingcure.v6ns2.2218
- Alahmad, G. (2020). Vocabulary learning strategies and their relation to vocabulary size in Saudi female undergraduate EFL learners. *International Journal of Linguistics Literature and Translation*, 3(7), 208–213. DOI: 10.32996/ijllt.2020.3.6.22
- Alharbi, M. A. (2020). Exploring the potential of Google Docs in facilitating innovative teaching and learning practices in an EFL writing course. *Innovation in Language Learning and Teaching*, 14(3), 227–242. DOI: 10.1080/17501229.2019.1572157
- Ali, M. A. (2020). Investigation of vocabulary learning strategies to identify word meanings for Saudi EFL students in reading context. *Arab World English Journal*, 11(3), 149–169. DOI: 10.24093/awej/vol11no3.9
- Alshammari, H. A. (2022). Investigating the low English proficiency of Saudi EFL learners. *Arab World English Journal*, 13(1), 129–144. DOI: 10.24093/awej/vol13no1.9
- Alsharif, R. (2022). Relationship between vocabulary learning strategies and vocabulary size: Evidence from Saudi female EFL learners. *International Journal of Education and Literacy Studies*, 10(1), 188. DOI: 10.7575/iaac.ijels.v10n.1p.18
- Altalhab, S. (2019). The vocabulary knowledge of Saudi EFL tertiary students. *English Language Teaching*, 12(5), 55–65. DOI: 10.5539/elt.v12n5p55
- Artırmak, O., KB, Ö., & Samet, B. (2018). Using quizizz.com to enhance pre-intermediate students' vocabulary knowledge. *International Journal of Language Academy*, 6(3), 295–303. DOI: 10.18033/ijla.3953
- Çil, E. (2021). The effect of using wordwall.net in increasing vocabulary knowledge of 5th Grade EFL students. *Language Education and Technology*, 1(1), 21–28. <https://orcid.org/0000-0002-3949-1316>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Dhaifi, I., Setyosari, P., Widiati, U., & Ulfa, S. (2020). Optimizing online learning resources to improve students' autonomous learning and vocabulary mastery through Word wall activities. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 8247–8266.
- Flores-Fernández, C., & Durán Riquelme, A. (2022). Active participation in classes: Factors involved in student interaction in synchronous online classes. *Información, Cultura y Sociedad*, 46, 129–130. DOI: 10.34096/ics.i46.11069
- Girmen, P., & Kaya, M. F. (2019). Using the flipped classroom model in the development of basic language skills and enriching activities: Digital stories and games. *International Journal of Instruction*, 12(1), 555–572. DOI: 10.29333/iji.2019.12136a
- Hasram, S., Nasir, M. K. M., Mohamad, M., Daud, M. Y., Abd Rahman, M. J., & Mohammad, W. M. R. W. (2021). The effects of Wordwall online games (Wow) on English language vocabulary learning among year 5 pupils. *Theory and Practice in Language Studies*, 11(9), 1059–1066. DOI: 10.17507/tpls.1109.11
- Ibad, W., Sabat, Y., Musyarofah, L., & Sulistyarningsih, S. (2023). Comparing Kahoot, Quizizz, and Wordwall in EFL reading class. *Eduvest-Journal of Universal Studies*, 3(11), 1984–2000. DOI: 10.59188/eduvest.v3i11.954
- Ilahi, L. W., Komara, C., & Ismail, Y. (2022). EFL students' perceptions of wordwall.net as a tool for learning English grammar. *Proceedings of the UHAMKA International Conference on ELT and CALL*.
- Jannah, M., & Syafradin, S. (2022). EFL students' perspectives on the use of wordwall.net as vocabulary learning media. *ELT Forum: Journal of English Language Teaching*, 11(2), 115–124. DOI: 10.15294/elt.v11i2.57120

- Kapp, K. M. (2012). *The gamification of learning and instruction: Game-based methods and strategies for training and education*. John Wiley & Sons.
- Magasvaran, V., Ukat, J., & Yunus, M. M. (2022). Boosting vocabulary mastery in primary school pupils by revolutionizing Wordwall through C&K. *International Journal of Academic Study in Progressive Education and Development*, 11(1), 72–83. DOI: 10.6007/IJARPED/v11-i1/11852
- Medina, E. G. L., & Hurtado, C. P. R. (2017). Kahoot!: A digital tool for learning vocabulary in a language classroom. *Revista Publicando*, 4(12), 441–449. <https://revistapublicando.org/revista/index.php/crv/article/view/673>
- Miftak, F., & Fitriyana, W. (2023). Student behavioral engagement in the use of wordwall.net for vocabulary learning. *Educational Vehicle Scientific Journal*, 9(25), 1–8. DOI: 10.5281/zenodo.10405249
- Mohamad, S. N. M., Sazali, N. S. S., & Salleh, M. A. M. (2018). A gamification approach in education to increase learning engagement. *International Journal of Humanities, Arts and Social Sciences*, 4(1), 22. DOI: 10.20469/ijhss.4.10003-1
- Mohinakhon, K., & Diyora, T. (2022). Effective strategies for using word walls in primary education. *Web of Scientist: International Scientific Study Journal*, 3(5), 53–158. DOI: 10.17605/OSF.IO/EC8H9
- Phuong, H. (2020). Gamified learning: Are Vietnamese EFL learners prepared? *International Journal of Emerging Technologies in Learning*, 15(24), 242–251. DOI: 10.3991/ijet.v15i24.16667
- Pradini, P. C., & Adnyayanti, N. L. P. E. (2022). Teaching English vocabulary to young learners using the Wordwall application: An experimental study. *Journal of Educational Study*, 2(2), 187–196. DOI: 10.36663/joes.v2i2.351
- Safitri, D., Awalia, S., Sekarintyas, T., Nuraini, S., Lestari, I., Suntari, Y., Marini, A., Iskandar, R., & Sudrajat, A. (2022). Enhancing student motivation through Wordwall-based digital game media. *IJIM*, 16(6), 189. DOI: 10.3991/ijim.v16i06.25729
- Santos, D. (2021). *Mega Goal 1 (Student Book)*. McGraw-Hill.
- Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, 74, 14–31. DOI: 10.1016/j.ijhcs.2014.09.006
- Sidek, H., & Rahim, H. A. (2015). The role of vocabulary knowledge in reading comprehension: A cross-linguistic study. *Procedia: Social and Behavioral Sciences*, 197, 50–56. DOI: 10.1016/j.sbspro.2015.07.046
- Wang, F., & Yamat, H. (2019). Identifying English vocabulary levels of Malaysian year 5 primary school students. *International Journal of Academic Study in Business and Social Sciences*, 9(12), 62–76. DOI: 10.6007/IJARBS/v9-i12/6669

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