

USING WORDWALL APPLICATION TO ENHANCE ENGLISH VOCABULARY RETENTION FOR 7TH GRADER STUDENTS AT A LOWER SECONDARY SCHOOL IN THAI NGUYEN

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ABSTRACT

This study investigates the effectiveness of using the Wordwall application to enhance English vocabulary retention among seventh-grade students at a lower secondary school in Thai Nguyen province. The research also explores students' attitudes toward learning vocabulary through this game-based application.

Adopting an action research design, the study was conducted over eight weeks with 45 students from class 7A1. The intervention incorporated Wordwall activities into vocabulary lessons. Data were collected using pre-tests, post-tests, questionnaires, and semi-structured interviews. Quantitative data were analyzed using paired-sample t-tests, while qualitative data provided insights into learners' perceptions.

Findings revealed a significant improvement in students' vocabulary retention after the intervention. The post-test mean score ($M = 16.56$) was notably higher than the pre-test mean score ($M = 9.82$), with $t = 14.782$, $p < 0.001$, indicating a statistically significant effect. Questionnaire and interview results showed that most students held positive attitudes toward the use of Wordwall, reporting increased motivation, engagement, and confidence in using new vocabulary.

The study concludes that Wordwall is an effective and engaging tool for improving vocabulary retention and fostering learner autonomy in EFL classrooms. It suggests that English teachers should integrate game-based digital tools into vocabulary instruction to make learning more interactive and effective.

Keywords: Wordwall application, vocabulary retention, game-based learning, EFL, action research, secondary school.

1. INTRODUCTION

English is recognized as one of the compulsory foreign language subjects in the Vietnamese national curriculum. The primary objective of English instruction at schools is to equip students with the linguistic competence required to pass the General Certificate of Secondary Education and the University Entrance Examination. Among the core components of language learning, vocabulary is widely acknowledged as a fundamental element. A limited vocabulary can significantly constrain learners' ability to comprehend and produce both spoken and written texts.

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Therefore, the development of effective strategies for vocabulary teaching and acquisition has long been a central concern for educators and researchers alike.

Vocabulary acquisition has been considered a key objective in English language education. Despite its importance, many learners struggle to expand their lexical repertoire, as vocabulary is often viewed as the most extensive and challenging aspect of language learning (Oxford, 1990). Consequently, exploring effective methods to support vocabulary growth has remained an active area of research. In recent years, the integration of digital learning tools has emerged as a promising approach. Technological innovations, particularly game-based learning applications, have demonstrated their potential to enhance engagement, motivation, and vocabulary retention across various learner groups.

However, in many Vietnamese classrooms, vocabulary lessons remain teacher-centered and heavily reliant on rote memorization. Students often learn new words passively from textbooks or teacher explanations, leading to low retention and a lack of motivation. Despite spending significant time on vocabulary, many students quickly forget what they have learned. This classroom reality highlights the need for more interactive, student-centered approaches that promote active learning and autonomy. Motivated by these challenges, the researcher sought to introduce a game-based learning platform—Wordwall—to seventh-grade students in a lower secondary school in Thai Nguyen, with the aim of improving vocabulary retention, fostering learner autonomy, and creating a more engaging learning experience.

Wordwall is an online platform offering a wide variety of interactive templates and printable resources that can be customized for different instructional purposes (Wordwall, 2023). Its flexibility allows teachers to easily adapt content across templates and use it for various activities such as differentiated instruction, formative assessment, classroom competitions, or independent study. By providing access codes, educators can assign tasks to individual students or groups, making it suitable for both in-class and self-directed learning contexts.

Among the four core language skills, reading plays a crucial role in vocabulary development, as it requires learners to recognize and internalize a wide range of lexical items. Wordwall activities can effectively support reading comprehension and vocabulary reinforcement through interactive, game-based tasks that enhance engagement and retention.

For all the reasons outlined above, this study entitled “Using Wordwall Application to Enhance English Vocabulary Retention for Seventh-Grade Students at a Lower Secondary School in Thai Nguyen” was conducted. The study aims to investigate the effectiveness of Wordwall in improving students’ vocabulary retention and to examine its potential in fostering greater learner autonomy in vocabulary learning.

2. LITERATURE REVIEW

2.1. Theoretical Framework

This study is grounded in theories of gamification and digital learning, which emphasize the role of interactive and engaging activities in enhancing motivation and learning outcomes (Prensky, 2001; Hamari et al., 2014). Game-based learning integrates elements of play and competition to promote active participation and deeper vocabulary processing.

In the context of English education in Vietnam, traditional vocabulary instruction often relies on rote memorization, leading to low retention. By adopting Wordwall, a game-based

application, this research aligns with pedagogical strategies that foster learner autonomy, motivation, and vocabulary retention.

Previous studies have confirmed the effectiveness of digital tools and gamified platforms in vocabulary acquisition (Nation, 2013; Webb, 2020; Zheng et al., 2020). However, skepticism remains among teachers about their practicality in public schools (Pham, 2022). This study addresses that gap by exploring Wordwall's feasibility and impact in lower secondary classrooms.

Practically, the findings offer insights for teachers and administrators on integrating technology to enhance vocabulary learning and communicative competence. Theoretically, the study contributes to the literature on game-based learning strategies in resource-limited educational contexts.

2.2. Vocabulary

Vocabulary is the foundation of language learning, including receptive (listening, reading) and productive (speaking, writing) knowledge (Neuman & Dwyer, 2009). It enables comprehension and communication. In foreign language learning, vocabulary must be stored and recalled effectively; however, forgetting is common without repeated exposure and meaningful use (Gairns & Redman, 1986).

Key factors influencing learning include word form, frequency, meaning complexity, grammar patterns, and L1 interference (Thornbury, 2002). Effective teaching should combine repetition, contextualization, and mnemonics to ensure long-term retention.

2.3. Vocabulary Retention

Vocabulary retention refers to storing and recalling words for communication (Nation, 2001). Long-term retention depends on memory processes, exposure, and learning strategies (Schmitt, 2010; Gu & Johnson, 1996). Frequent practice, meaningful use, and retrieval tasks strengthen memory. Digital tools that offer repetition and interaction can enhance retention.

2.4. Wordwall Application

Wordwall is an online platform that allows teachers to create interactive and printable activities such as quizzes, crosswords, and games. It supports individual and group learning, enhances motivation, and provides instant feedback (Nguyen & Tran, 2020).

Benefits include increased engagement, autonomy, and repetition, which promote vocabulary retention. Teachers can easily adapt activities to different contexts and levels.

2.5. Attitude in Language Learning

Learners' attitudes strongly influence language success. Positive attitudes foster motivation, participation, and achievement (Nunan, 1991). Integrating interactive tools like Wordwall can enhance students' enjoyment and confidence, shaping favorable perceptions toward vocabulary learning and technology use.

2.6. Related Studies

Previous studies highlight the effectiveness of game-based tools (e.g., Quizlet, Kahoot, Wordwall) in vocabulary learning (Wright, 2016; Zheng et al., 2020). Research shows such tools improve retention and engagement. However, studies on Wordwall in Vietnamese public schools

remain limited. This study addresses that gap by exploring its impact on seventh graders' vocabulary retention and attitudes.

3. RESEARCH METHODOLOGY

3.1. Research Design

3.1.1. Research Setting

The study was conducted at a lower secondary school in Thai Nguyen province during the 2023–2024 academic year. Many seventh-grade students showed low motivation and difficulty in memorizing vocabulary. Therefore, the research aimed to improve their vocabulary retention and attitudes toward learning through the Wordwall application.

3.1.2. Action Research Cycles

The study followed the action research model (Kemmis & McTaggart, 1988), including four stages: planning, action, observation, and reflection. This cyclical process allows continuous improvement based on classroom data and reflection.

3.1.3. Research Approach

An action research approach was adopted to enhance teaching practices and student learning outcomes (Hopkins, 1993). The researcher acted as both teacher and investigator, applying Wordwall activities to improve vocabulary learning.

3.2. Participants

Participants were 45 seventh-grade students from class 7A1. English was a compulsory subject, but many struggled with vocabulary. Convenience sampling was used. Ethical considerations were ensured: participants and parents were informed, consent was obtained, data were confidential, and withdrawal was voluntary.

3.3. Research Procedure

The study was implemented over an eight-week period following the four stages of the action research cycle: planning, implementation, observation, and reflection. In the planning stage (Week 1), the researcher conducted a diagnostic pre-test and a short survey to identify students' difficulties and attitudes toward vocabulary learning. Based on these findings, lesson plans and activities using the Wordwall application were designed. During the implementation stage (Weeks 2–6), Wordwall was integrated into regular English lessons focusing on vocabulary from textbook Units 6 and 7. Each class lasted 45 minutes, three times per week, and included interactive Wordwall games, practice tasks, and short quizzes to reinforce new vocabulary. In the observation stage, the researcher recorded classroom observations after each session, noting students' participation, engagement, and common challenges. Finally, in the reflection stage (Weeks 7–8), a post-test, questionnaire, and semi-structured interviews were administered to evaluate vocabulary retention and attitudes. The researcher analyzed the outcomes, identified strengths and weaknesses, and reflected on the effectiveness of the intervention for future improvement.

3.4. Data Collection and Analysis

Data were collected using both quantitative and qualitative instruments. The quantitative data consisted of a pre-test and post-test, each containing 20 items (15 multiple-choice and 5 matching), designed to measure vocabulary retention based on Units 6 and 7. The tests were validated by two English teaching experts. A questionnaire with 13 Likert-scale items was administered to assess students' perceptions and attitudes toward using Wordwall. For qualitative data, semi-structured interviews were conducted with ten students from different achievement levels to explore their experiences in depth. All data were analyzed systematically. Test scores were compared using mean scores and a paired-sample t-test to determine statistical significance at the 0.05 level. Questionnaire responses were summarized in percentages, and interview transcripts were coded thematically. The integration of these data sources allowed for triangulation, ensuring the validity and reliability of the findings and providing a comprehensive understanding of the impact of Wordwall on students' vocabulary retention and learning attitudes.

4. RESULTS AND DISCUSSIONS

4.1. Results

4.1.1. The Effectiveness of Using the Wordwall Application

4.1.1.1. Results from Pre-test and Post-test

To evaluate the effectiveness of the Wordwall application in improving students' vocabulary retention, a pre-test and post-test were administered to 45 seventh-grade students. The mean pre-test score was 9.82 (SD = 3.39), while the post-test mean increased to 16.56 (SD = 1.93), indicating a significant improvement of 6.74 points after the intervention.

Table 4.3. Descriptive Statistics of Pre-test and Post-test

Test	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	45	2	15	9.82	3.39
Post-test	45	13	20	16.56	1.93

A paired-sample t-test was performed to determine whether the difference was statistically significant. The result revealed $t = 14.782$, $p < 0.001$, confirming that the use of Wordwall led to a significant increase in students' vocabulary scores.

Table 4.4. Paired Samples t-test

Pair	Mean Difference	t	df	Sig. (2-tailed)
Pre-test vs Post-test	-6.73	-14.78	44	0.000

These findings indicate that the intervention using the Wordwall application significantly improved students' vocabulary retention and test performance. Most students' scores shifted from below average (under 6.5) to high (above 7.0) after the intervention.

4.1.1.2. Results from the Questionnaire

The questionnaire was used to further investigate students' perceptions of Wordwall's effectiveness. Results showed that the majority of students expressed positive views about the application. Specifically, 97.8% agreed that Wordwall helped them connect lessons logically, 93.3% felt confident using the vocabulary in class, and 91.1% believed that it improved their long-term retention.

Table 4.5. Summary of Students' Perceptions of Wordwall Effectiveness

Aspect	Agreement (%)
Linking lessons logically	97.8%
Retaining vocabulary longer	91.1%
Using vocabulary confidently	93.3%
Learning from references	100%
Expanding vocabulary	93.3%

These results show that Wordwall contributed positively to students' vocabulary acquisition, lesson engagement, and confidence in language use.

4.1.2. Students' Attitudes Toward Using Wordwall

4.1.2.1. Questionnaire Results

Students expressed strong positive attitudes toward learning vocabulary through Wordwall. All participants agreed that vocabulary expansion is essential and that Wordwall is a valuable and engaging tool. Most students (95%) indicated they would continue using it or recommend it to peers.

Table 4.6. Students' Attitudes Toward Using Wordwall

Attitude Statement	Agreement (%)
Vocabulary expansion is essential	100%
Wordwall is useful for vocabulary learning	100%
Vocabulary in Wordwall is helpful	100%
Will continue using Wordwall	95.6%
Will recommend to others	100%

4.1.2.2. Interview Results

Interview responses supported the quantitative findings. All ten interviewed students (100%) agreed that Wordwall made learning vocabulary easier, more enjoyable, and more effective. Several students mentioned it helped them learn related words, use them in context, and improve grammar. A few noted challenges with applying words in complex contexts, but overall attitudes remained highly positive.

4.2. Discussion

The results clearly demonstrate that the Wordwall application significantly improved vocabulary retention and student engagement. The increase in post-test scores and overwhelmingly positive feedback align with prior research (Wright, 2016; Medina et al., 2017; Nasution et al., 2021), showing that game-based tools enhance motivation and memory. Wordwall's interactive nature provided repeated exposure and active practice, key factors in long-term retention (Schmitt, 2000; Nation, 2013). The study also highlights how gamified learning fosters positive attitudes, motivation, and autonomy, crucial components of successful language learning. This supports the theoretical framework emphasizing meaningful repetition and learner-centered engagement as effective strategies for vocabulary instruction.

4.3. Summary

In conclusion, the findings reveal that using Wordwall significantly enhanced students' vocabulary retention and fostered positive attitudes toward vocabulary learning. Test results showed statistically significant improvement, while survey and interview data confirmed high satisfaction and willingness to continue using the application. These outcomes suggest that Wordwall is an effective and engaging tool for vocabulary instruction in lower secondary schools in Vietnam.

5. CONCLUSION

This study investigated the effectiveness of the Wordwall application in enhancing vocabulary retention and explored students' attitudes toward using this digital tool in English learning at a lower secondary school in Thai Nguyen. Over an eight-week action research intervention involving 45 seventh-grade students, data were collected from pre-tests, post-tests, questionnaires, and interviews.

The findings revealed that the Wordwall application had a significant positive effect on students' vocabulary learning outcomes. The mean score increased from 9.82 in the pre-test to 16.56 in the post-test, with a statistically significant difference ($t = 14.782$, $p < 0.001$). Students showed improved retention, greater confidence, and better recall of target vocabulary. Survey and interview results further confirmed highly positive attitudes, as most students found Wordwall engaging, motivating, and effective for learning and reviewing vocabulary. They appreciated the interactive features, game-like design, and the opportunity to learn autonomously and enjoyably.

The study suggests that game-based applications such as Wordwall can be valuable tools for both teachers and students. Teachers are encouraged to integrate Wordwall into classroom instruction and homework to create more dynamic and student-centered lessons. For students, using Wordwall fosters active participation, independent practice, and long-term retention.

Schools and administrators should support technology integration in teaching to enhance learning outcomes.

However, several limitations should be acknowledged. The study was limited to a small sample from one class and lasted only eight weeks, which restricts generalizability. Some students with limited vocabulary background initially struggled to apply words in complex contexts. Future research should involve larger samples, longer durations, and multiple settings to validate and extend these findings.

In conclusion, this research provides strong evidence that Wordwall is an effective and motivating tool for improving vocabulary retention among lower secondary students. It highlights the potential of technology-enhanced learning in making vocabulary instruction more interactive, enjoyable, and sustainable. Future studies should continue exploring how game-based learning can be combined with other teaching methods to further enhance English language learning outcomes.

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