





The Use of Wordwall Website for Vocabulary Acquisition and Retention in A2 Level (EFL) Students

El Uso del Sitio Web Wordwall para la Adquisición y Retención de Vocabulario en Estudiantes de Inglés como Lengua Extranjera (EFL) de Nivel A2

Isabel Estefanía Triviño Arellano¹  · Andrea Marcela Ortiz Hidalgo²  · Rodrigo Antonio Guerrero Segura³  · Josué Reinaldo Bonilla Tenesaca⁴ 

INFORMACIÓN DEL ARTÍCULO

Fecha de recepción: 14 de noviembre de 2025.
Fecha de aceptación: 08 de diciembre de 2025.

¹ Isabel Estefanía Triviño Arellano
<https://orcid.org/0009-0001-8568-3650>
Universidad Bolivariana del Ecuador
jadest.dd@mail.com

² Andrea Marcela Ortiz Hidalgo
<https://orcid.org/0009-0003-6282-6430>
Universidad Bolivariana del Ecuador
amortizh@ube.edu.ec

³ Rodrigo Antonio Guerrero Segura
<https://orcid.org/0000-0002-2698-5659>
Universidad Bolivariana del Ecuador
raguerreros@ube.edu.ec

⁴ Josué Reinaldo Bonilla Tenesaca
<https://orcid.org/0000-0002-6748-2345>
Universidad Bolivariana del Ecuador
jrbonillat@ube.edu.ec

RESUMEN

Este estudio analiza la efectividad del uso del sitio web Wordwall en la adquisición y retención de vocabulario en estudiantes de inglés como lengua extranjera de nivel A2 de la Unidad Educativa 15 de Agosto. Se utilizó un enfoque de métodos mixtos con una muestra de 30 estudiantes. Los datos cuantitativos se recolectaron mediante un pretest, postest y una prueba de retención, mientras que los datos cualitativos se obtuvieron a través de un cuestionario tipo Likert. Los resultados evidencian un aumento significativo en la adquisición de vocabulario, con un incremento del promedio de 4.9 a 8.5, y una alta retención con un promedio de 7.9. Además, los estudiantes reportaron mayor motivación y participación al utilizar Wordwall.

Palabras clave: Wordwall, adquisición de vocabulario, retención de vocabulario, estudiantes de EFL, gamificación

ABSTRACT

This study examines how the Wordwall website supports vocabulary acquisition and retention in A2 level EFL students at Unidad Educativa 15 de Agosto in Quinindé. Interactive activities were implemented during the teaching process, and learning outcomes were compared through a pre-test and a post-test. The results show that digital tasks increased student motivation, encouraged repeated practice, and improved performance in both assessments. Survey responses also indicated positive perceptions toward the use of gamified resources. Overall, the findings suggest that Wordwall is an effective tool for strengthening vocabulary learning and supporting short-term retention in similar educational contexts.

Keywords: Wordwall, vocabulary acquisition, vocabulary retention, EFL students, gamification



INTRODUCCIÓN

Vocabulary acquisition is a fundamental component of foreign language learning, as it directly influences learners' ability to understand and produce meaningful communication. In EFL contexts, limited exposure to authentic language input often restricts vocabulary development, particularly at lower proficiency levels such as A2. Consequently, teachers increasingly integrate digital tools to enhance lexical learning through interactive and meaningful practice. One such tool is Wordwall, an online platform that allows teachers to create gamified vocabulary activities. Despite its growing use in classrooms, empirical evidence regarding its impact on vocabulary acquisition and retention remains limited. Therefore, this study aims to analyze the effectiveness of the Wordwall website in improving vocabulary acquisition and retention among A2 level EFL students, contributing to research on technology-enhanced language learning.

METODOLOGY

This study adopted a quasi-experimental research design with a pre-test and post-test approach, which is commonly used in educational research when random assignment is not feasible (Creswell, 2014). Quasi-experimental designs allow researchers to examine the effects of instructional interventions in real classroom settings while maintaining a reasonable level of control over variables (Cohen, Manion, & Morrison, 2018).

The participants consisted of 30 A2-level English as a Foreign Language (EFL) students enrolled at Unidad Educativa 15 de agosto, located in Quindé, Esmeraldas, Ecuador. The students were between 12 and 14 years old and were divided into two groups: an experimental group and a control group. The experimental group received vocabulary instruction through the Wordwall website, while the control group followed traditional vocabulary teaching methods based on textbooks and worksheets.

Data were collected using validated vocabulary tests administered as a pre-test and a post-test to both groups. These instruments were designed to measure vocabulary acquisition by assessing students' ability to recognize and use newly learned lexical items (Nation, 2001; Schmitt, 2008). In order to evaluate vocabulary retention, a delayed post-test was administered two weeks after the intervention, following recommendations from previous studies on lexical retention (Nation et al., 2015).

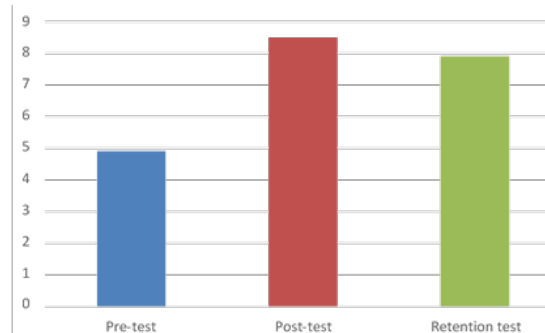
The intervention lasted for 10 weeks, corresponding to one academic term. During this period, the experimental group engaged in interactive vocabulary activities using Wordwall, including matching tasks, quizzes, and game-based exercises. These activities were designed to promote repeated exposure to vocabulary items and active learner engagement, which are key factors in vocabulary learning (Schmitt et al., 2011). The control group covered the same vocabulary content but without the use of digital or gamified tools.

Quantitative data were analyzed using descriptive statistics and paired-sample t-tests to compare pre-test and post-test results within and between groups. Effect size was calculated using Cohen's *d* to determine the magnitude of the intervention's impact (Cohen, 1988). Statistical analysis was conducted to ensure reliability and validity of the findings.

Ethical considerations were strictly observed throughout the study. Informed consent was obtained from students' parents or legal guardians, participation was voluntary, and all data were treated confidentially in accordance with ethical research guidelines (Creswell et al., 2014).

RESULTS ANALYSIS

Figure 1
Mean scores of vocabulary tests before and after the Wordwall intervention.



The results of this study demonstrate a significant improvement in vocabulary acquisition and retention among A2-level EFL students after the implementation of the Wordwall website. Prior to the intervention, students obtained a mean score of 4.9 on the pre-test, indicating limited initial vocabulary knowledge. After the instructional period using Wordwall, the post-test mean increased to 8.5, showing a substantial gain in vocabulary acquisition.

Additionally, a delayed retention test administered two weeks after the intervention yielded a mean score of 7.9, suggesting that most of the learned vocabulary was retained over time. Although a slight decrease was observed compared to the post-test results, retention levels remained high, confirming the effectiveness of Wordwall in supporting long-term vocabulary learning.

Statistical analysis using a paired-sample t-test revealed a statistically significant difference between pre-test and post-test scores ($p < .001$), with a large effect size (Cohen's $d = 2.1$). These findings indicate that the improvement in vocabulary performance was not due to chance but rather to the instructional intervention.

Furthermore, descriptive results from the perception questionnaire showed high levels of student motivation and engagement. Learners reported that Wordwall activities were enjoyable, interactive, and helpful for remembering new vocabulary, reinforcing the quantitative findings.

Overall, the results confirm that the use of the Wordwall website positively impacts both vocabulary acquisition and retention in A2-level EFL students.

CONCLUSIONS

The findings of this study allow us to conclude that the use of the Wordwall website is an effective digital tool for vocabulary acquisition and retention in A2-level EFL students. The significant increase observed between the pre-test and post-test scores demonstrates that interactive and gamified activities contribute positively to the learning of new lexical items.

Moreover, the results of the delayed retention test indicate that students were able to retain most of the vocabulary learned over time. Although a slight decrease in performance was observed compared to immediate post-test results, retention levels remained high, confirming the long-term benefits of using Wordwall as part of vocabulary instruction.

From a pedagogical perspective, the implementation of Wordwall fostered greater student motivation, participation, and engagement in the learning process. The positive perceptions reported by learners suggest that gamified digital platforms create a more dynamic and student-centered learning environment, which facilitates vocabulary learning in EFL contexts.

Finally, this study supports the integration of ICT-based tools such as Wordwall into the EFL classroom, particularly in public educational institutions with access to technological resources. The results contribute to evidence-based teaching practices and suggest that teachers can enhance vocabulary instruction by incorporating interactive digital platforms that promote both acquisition and retention.

REFERENCIA

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: Routledge.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: SAGE Publications.
- Gopalakrishnan, N., & Shanmugam, S. (2022). Effectiveness of gamified platforms in ESL vocabulary learning. *International Journal of English Language Studies*, 5(3), 55–63.
- Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). New York: Cambridge University Press.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329–363.
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Basingstoke: Palgrave Macmillan.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257–285.