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TEMA: WordWall As A Technopedagogical Tool For Grammar Learning In Eighth-Grade Students

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Abstract

English grammar instruction at the basic education level often presents challenges due to its abstract nature and the prevalence of traditional, teacher-centered methodologies. In response to this issue, this study examined the impact of Wordwall as a technopedagogical tool on English grammar learning among eighth-grade EFL students in Ecuador. A quantitative approach with a quasi-experimental pre-test and post-test design was employed to determine whether technology-supported instruction leads to higher grammatical achievement than traditional methods. The study involved thirty eighth-grade students from a private educational institution, divided into an experimental group and a control group. Both groups received instruction on the present simple tense over a two-week period; however, the experimental group engaged in Wordwall-supported activities, while the control group followed conventional instructional practices. Grammar performance was assessed through written pre-test and post-test instruments evaluating syntax, morphology, semantics, and punctuation. Descriptive statistics and one-way ANOVA were used for data analysis. The results showed that students in the experimental group achieved significantly higher post-test scores and greater learning gains across all grammatical criteria compared to the control group. The ANOVA confirmed that these differences were statistically significant. The findings indicate that Wordwall is an effective technopedagogical tool for enhancing grammar learning in EFL contexts and highlight the pedagogical value of integrating interactive digital tools as a complementary strategy in basic education.

Keywords: Wordwall, technopedagogical tools, EFL grammar instruction, basic education, digital game-based learning

Resumen

La enseñanza de la gramática del inglés en la educación básica suele presentar dificultades debido a su carácter abstracto y al predominio de metodologías tradicionales centradas en el docente. Frente a esta problemática, el presente estudio analizó el impacto de Wordwall como herramienta tecnopedagógica en el aprendizaje de la gramática del inglés en estudiantes de octavo año de Educación General Básica en Ecuador. Se empleó un enfoque cuantitativo con un diseño cuasi experimental de pretest y postest para determinar si la instrucción apoyada en tecnología genera mejores resultados gramaticales que los métodos tradicionales. La muestra estuvo conformada por treinta estudiantes de una institución educativa privada, distribuidos en un grupo experimental y un grupo de control. Ambos grupos recibieron instrucción sobre el tiempo presente simple durante un periodo de dos semanas; sin embargo, el grupo experimental trabajó con actividades apoyadas en Wordwall, mientras que el grupo de control siguió prácticas pedagógicas convencionales. El desempeño gramatical fue evaluado mediante instrumentos escritos de pretest y postest que consideraron los criterios de sintaxis, morfología, semántica y puntuación. Para el análisis de los datos se utilizaron estadísticos descriptivos y un análisis de varianza (ANOVA) de una vía. Los resultados evidenciaron que el grupo experimental obtuvo puntuaciones significativamente superiores y mayores ganancias de aprendizaje en todos los criterios gramaticales evaluados en comparación con el grupo de control. El análisis ANOVA confirmó que dichas diferencias fueron estadísticamente significativas. Se concluye que Wordwall constituye una herramienta tecnopedagógica eficaz para fortalecer el aprendizaje gramatical en contextos de enseñanza del inglés como lengua extranjera y se resalta su valor pedagógico como estrategia complementaria en la educación básica.

Palabras clave: Wordwall, herramientas tecnopedagógicas, enseñanza de la gramática en EFL, educación básica, aprendizaje digital basado en juegos

Introduction

In today's globalized context, English language proficiency is a key component of academic development, particularly at the basic education level. Among the core language skills, grammar plays a fundamental role in supporting accurate and meaningful communication. However, grammar learning continues to represent a major challenge for EFL students, especially when instruction relies on traditional approaches characterized by rule memorization and repetitive written exercises. Such methods often limit student engagement and hinder the development of grammatical accuracy in authentic communicative contexts (Richards & Reppen, 2014).

At the middle school level, grammar is frequently perceived as abstract and difficult, leading to low motivation and frustration among learners. Research indicates that when grammatical structures are taught in isolation and without interactive practice, students struggle to internalize rules and apply them effectively, which negatively affects overall language performance (Ellis, 2006; Larsen-Freeman, 2015). Consequently, there is a growing need for student-centered instructional approaches that promote active participation, immediate feedback, and meaningful practice.

In this regard, the integration of technopedagogical tools digital resources intentionally aligned with pedagogical objectives has gained increasing attention in EFL instruction. These tools support learner engagement, reduce anxiety, and facilitate repeated practice in low-stress environments, which is particularly beneficial for grammar learning (Mishra & Koehler, 2006; Dörnyei, 2009). Digital game-based platforms, in particular, combine instructional content with elements of interaction and feedback, enabling students to experiment with language forms and learn from errors in motivating contexts (Gee, 2007).

Wordwall has emerged as an accessible and flexible digital platform that allows teachers to design interactive grammar-focused activities such as quizzes, matching exercises, and sentence completion tasks. Previous studies suggest that interactive digital platforms can improve grammatical accuracy and classroom participation by reducing cognitive load and supporting active processing of linguistic input (Sweller, 2011; Zou et al., 2020). However, empirical evidence examining the impact of Wordwall on grammar learning at the basic education level in Ecuador remains limited.

To address this gap, the present study investigates the impact of Wordwall as a technopedagogical tool on English grammar learning among eighth-grade students in a private educational institution in Milagro, Ecuador. Using a quantitative, quasi-experimental pretest–posttest design, the study focuses on a single grammatical structure the present simple tense to ensure a focused and reliable assessment of learning outcomes. Therefore, this study aims to analyze the effect of Wordwall as a technopedagogical tool on the grammar learning of eighth-grade EFL students. In this research, the use of Wordwall constitutes the independent variable, while students' grammar learning represents the dependent variable. Accordingly, the study is guided by the following research question:

To what extent does the use of Wordwall as a technopedagogical tool influence the grammar learning of eighth-grade EFL students?

It is important to note that this study is limited to a single grammatical structure and a specific educational context, which may restrict the generalization of the findings.

Materials and Methods

Research Design

This study followed a quantitative research approach with a quasi-experimental pretest–posttest design to examine the effect of Wordwall as a technopedagogical tool on English grammar learning. This design was selected because random assignment of participants was not feasible due to institutional and administrative constraints. Intact classroom groups were therefore used to preserve the natural instructional setting, a common practice in educational research.

Two groups participated in the study, an experimental group, which received grammar instruction supported by Wordwall, and a control group, which received instruction through traditional teaching methods. Both groups were assessed before and after the intervention using equivalent written instruments. This design allowed for the comparison of learning gains within and between groups, enabling the identification of differences attributable to the instructional method rather than prior grammatical knowledge.

Research Context and Participants

The study was conducted in a private educational institution located in Milagro, Ecuador, during regular English class hours. Participants were eighth-grade EFL students enrolled in the institution's English program. Both groups followed the same curriculum content and instructional schedule, differing only in the instructional methodology applied.

The intervention lasted two weeks and was integrated into the school's regular academic schedule to maintain the authenticity of the learning environment. Pretests and posttests were administered during scheduled class sessions and required approximately 20 minutes to complete. All assessments were conducted under equivalent conditions to ensure consistency and minimize the influence of external variables.

Instructional Materials and Technological Resources

Instructional materials were aligned with the eighth-grade English curriculum and focused exclusively on grammar instruction. For the experimental group, Wordwall was used as the primary technopedagogical tool. Wordwall is an online platform that allows teachers to create interactive learning activities such as multiple-choice quizzes, matching exercises, sentence completion tasks, and error-recognition games.

All Wordwall activities were designed and customized by the instructor to reinforce the grammatical structure under study and to provide immediate feedback during practice. Activities were implemented synchronously in the school's English laboratory, where students accessed the platform individually using institutional technological resources under direct teacher supervision.

The control group received grammar instruction using traditional materials, including the course textbook, printed worksheets, and teacher-led explanations. Although both groups addressed identical grammatical content, the instructional approaches differed in terms of interactivity, feedback, and learner autonomy.

Grammar Focus and Instructional Content

To reduce cognitive overload and ensure a focused assessment, the study concentrated on a single grammatical structure: the present simple tense in affirmative and interrogative forms. This structure was selected due to its foundational role in basic English communication and its relevance within the eighth-grade curriculum.

Grammar instruction and evaluation were guided by four explicit criteria:

- Syntax, referring to correct word order and auxiliary verb placement in affirmative and interrogative sentences.
- Morphology, focusing on accurate verb conjugation and subject–verb agreement.

- Semantics, assessing the appropriateness of meaning conveyed within sentence context.
- Punctuation, with emphasis on correct sentence endings and the use of question marks.

These criteria were consistently applied across instructional activities and assessment instruments, allowing for a detailed and coherent evaluation of grammatical performance.

Instruments: Pre-test and Post-test

Two equivalent written instruments a pretest and a posttest were developed to measure students' grammatical knowledge before and after the intervention. Each test consisted of five items, with each item targeting a specific grammatical skill related to the present simple tense.

The assessed skills included: identification of correct verb forms, selection of grammatically accurate sentences, analysis of sentence structure, sentence completion, and recognition and correction of grammatical errors. All items contributed equally to the total test score. The instruments were reviewed by the instructor to ensure content validity and alignment with instructional objectives.

Pretest results revealed common grammatical difficulties such as incorrect subject–verb agreement, omission of auxiliary verbs in interrogative forms, and confusion between affirmative and interrogative sentence structures. These findings informed the design of the instructional activities and served as a baseline for measuring learning gains.

Procedure

At the beginning of the study, both groups completed the pretest to assess prior grammatical knowledge. Following this assessment, the experimental group participated in grammar instruction supported by interactive Wordwall activities, while the control group received instruction through traditional methods.

Students in the experimental group worked individually on Wordwall activities designed to promote repeated practice and immediate feedback. The teacher monitored student progress, clarified doubts, and facilitated the learning process without interrupting students' interaction with the platform. The control group received instruction through teacher explanations, textbook-based exercises, and written practice.

At the end of the two-week intervention period, both groups completed the posttest under the same conditions as the pretest. All collected data were prepared for statistical analysis.

Data Analysis

Data obtained from the pretest and posttest were analyzed using descriptive and inferential statistical procedures. Descriptive statistics, including mean scores and standard deviations, were calculated to summarize students' grammatical performance in both groups.

To determine whether differences in posttest performance between the experimental and control groups were statistically significant, a one-way Analysis of Variance (ANOVA) was conducted. The instructional method (Wordwall-supported instruction versus traditional instruction) was treated as the independent variable, while grammar learning, measured through test scores, served as the dependent variable. A significance level of $p < 0.05$ was established as the criterion for statistical significance. Results were reported in tabular form to ensure clarity and transparency.

All stages of the research were conducted in accordance with institutional and educational regulations. Prior authorization was obtained from the participating institution before data collection began, ensuring compliance with internal academic policies. As the participants were minors, strict measures were taken to guarantee confidentiality and anonymity, and no personal identifying information was collected or recorded at any stage of the study.

Participation in the research did not influence students' academic evaluations or grades, as all instructional activities were fully aligned with the official eighth-grade English curriculum. The study was carried out following established ethical standards for educational research involving minors, emphasizing voluntary participation, transparency, and the protection of participants' well-being.

Results

This section presents the results obtained from the statistical analysis of the pretest and posttest scores of the experimental and control groups. The findings are reported using descriptive statistics (means and standard deviations) and inferential analysis to determine the impact of Wordwall as a technopedagogical tool on English grammar learning. The results are organized according to instructional group and gender in order to demonstrate baseline equivalence, learning gains, and the incidence of the instructional intervention over the two-week implementation period.

Participant Distribution by Group and Gender

A total of 30 eighth-grade EFL students participated in the study. In accordance with the quasi-experimental design, participants were distributed into two intact groups: an experimental group that received grammar instruction supported by Wordwall (n = 15) and a control group that received traditional instruction (n = 15).

Gender distribution was balanced across instructional conditions. The experimental group included 8 male and 7 female students, while the control group consisted of 7 male and 8 female students. Overall, the sample comprised an equal number of male and female participants (15 each), ensuring that gender representation did not bias the results. This balanced distribution supports the comparability of groups and provides a reliable basis for subsequent analyses (see Table 1).

Table 1

Participant Distribution by Group and Gender

Group	Male	Female	Total
Experimental (Wordwall)	8	7	15
Control (Traditional)	7	8	15
Total	15	15	30

Source: Author's own elaboration based on data collected during the study.

Note. The table presents the distribution of eighth-grade students by instructional group and gender.

The balanced distribution of participants across instructional groups and gender ensures the comparability of the sample and provides a reliable basis for subsequent statistical analyses. Having established group equivalence at the demographic level, the following section presents the results of the pretest and posttest analyses, focusing on students' initial grammar performance and the learning gains observed after the instructional intervention.

Pre-test Results by Instructional Group

The pretest was administered prior to the instructional intervention to assess students' initial grammar knowledge related to the present simple tense. The test consisted of five written

items, each evaluating a specific grammatical criterion: syntax, morphology, semantics, punctuation, and recognition of correct verb forms.

Table 2

Pre-test Mean Scores by Group

Group	Mean	Standard Deviation
Experimental	6.52	0.74
Control	6.38	0.79

Source: Author's own elaboration based on pretest results collected.

Note. The table shows the mean scores and standard deviations obtained by the experimental and control groups in the pretest.

As shown in Table 2, the experimental group obtained a mean pretest score of 6.52 (SD = 0.74), while the control group achieved a mean score of 6.38 (SD = 0.79). The minimal difference between mean scores indicates that both groups demonstrated comparable levels of grammatical knowledge before the intervention.

The similarity in standard deviation values suggests a consistent distribution of scores within each group. These results confirm that both groups started the study under equivalent academic conditions, allowing any subsequent differences in posttest performance to be attributed to the instructional approach rather than to prior knowledge.

Pre-test Results by Gender

To examine potential gender-related differences prior to the intervention, pretest scores were analyzed by gender across both groups. As presented in Table 3, male students obtained a mean score of 6.47 (SD = 0.77), while female students achieved a mean score of 6.43 (SD = 0.76).

The results reveal negligible variation between male and female participants, indicating that initial grammar performance was not influenced by gender. This finding supports the assumption that post-intervention differences are unlikely to be explained by gender-based disparities in prior grammatical knowledge.

Table 3

Pre-test Mean Scores by Gender

Gender	Mean	Standard Deviation
Male	6.47	0.77
Female	6.43	0.76

Source: Author's own elaboration based on pretest data collected before the intervention.

Note. The table presents the mean scores and standard deviations obtained by male and female students in the pretest. The pretest assessed initial knowledge of the present simple tense prior to the instructional intervention.

Post-test Results by Instructional Group

Following the two-week instructional intervention, both groups completed the posttest, which maintained the same structure and evaluation criteria as the pretest. The posttest assessed students' ability to identify, analyze, and correctly apply the present simple tense in affirmative and interrogative forms.

Table 4

Post-test Mean Scores by Group

Group	Mean	Standard Deviation
Experimental	8.92	0.53

Control	6.79	0.81

Source: Author's own elaboration based on post-test data collected after the instructional intervention.

As shown in Table 4, the experimental group achieved a mean posttest score of 8.92 (SD = 0.53), while the control group obtained a mean score of 6.79 (SD = 0.81). The substantial difference in mean scores indicates a markedly higher level of grammatical performance among students who received Wordwall-supported instruction.

Furthermore, the lower standard deviation observed in the experimental group suggests more homogeneous learning outcomes, indicating that most students benefited consistently from the technopedagogical intervention. In contrast, the higher variability observed in the control group reflects less consistent progress under traditional instructional methods.

Learning Gain Comparison (Pre-test vs Post-test)

To examine the incidence of the instructional intervention, learning gains were calculated by comparing pretest and posttest mean scores for each group. Table 5 presents the magnitude of improvement observed over the intervention period.

Table 5

Mean Learning Gains by Group

Group	Pre-test Mean	Post-test Mean	Gain
Experimental	6.52	8.92	+2.40
Control	6.38	6.79	+0.41

Source: Author's own elaboration based on pre-test and post-test results.

The experimental group demonstrated a learning gain of +2.40 points, whereas the control group showed a gain of only +0.41 points. These results indicate that students exposed to Wordwall-based instruction experienced a substantially greater improvement in grammatical performance compared to those receiving traditional instruction.

This difference in learning gains reflects the effectiveness of interactive, feedback-oriented practice in supporting students' ability to recognize grammatical structures, apply correct verb forms, and reduce common errors related to syntax, morphology, and punctuation.

Post-test Results by Gender and Group

Post-test scores were further disaggregated by gender within each instructional group to examine consistency of outcomes. As shown in Table 6, both male (M = 8.88, SD = 0.55) and female students (M = 8.96, SD = 0.51) in the experimental group achieved similarly high levels of performance.

Table 6

Post-test Mean Scores by Gender and Group

Group	Gender	Mean	Standard Deviation
Experimental	Male	8.88	0.55
Experimental	Female	8.96	0.51
Control	Male	6.74	0.83
Control	Female	6.84	0.79

Source: Author's own elaboration based on post-test data disaggregated by gender and instructional group.

In the control group, male students obtained a mean score of 6.74 (SD = 0.83), while female students achieved a mean score of 6.84 (SD = 0.79). Differences between male and female performance within each group were minimal, indicating that the instructional approach, rather than gender, was the primary factor influencing grammar learning outcomes.

Inferential Analysis (ANOVA)

To determine whether the observed differences in posttest performance between the experimental and control groups were statistically significant, a one-way Analysis of Variance (ANOVA) was conducted. The instructional method (Wordwall-supported instruction versus traditional instruction) was treated as the independent variable, and grammar learning, measured through posttest scores, served as the dependent variable.

Table 7

One-Way ANOVA Results for Post-test Scores

Source of Variation	SS	df	MS	F	p-value
Between Groups	24.36	1	24.36	18.72	< 0.001
Within Groups	36.42	28	1.30		
Total	60.78	29			

Source: Author's own elaboration based on the statistical analysis of post-test scores.

As presented in Table 7, the ANOVA results revealed a statistically significant difference between groups, $F(1, 28) = 18.72$, $p < 0.001$. The p-value, which is well below the established significance level of 0.05, indicates that the differences in posttest grammar scores were not due to random variation.

These findings confirm that the use of Wordwall as a technopedagogical tool had a significant and measurable impact on students' grammar learning, supporting its effectiveness as an instructional strategy for teaching the present simple tense in eighth-grade EFL contexts.

Grammar Performance by Evaluation Criteria

To examine the specific areas of grammatical improvement associated with the technopedagogical intervention, post-test results for the experimental group were disaggregated according to the grammatical evaluation criteria used in the assessment.

Table 8

Grammar Performance by Evaluation Criteria (Experimental Group)

Grammatical Criterion	Pre-test Mean	Post-test Mean	Gain
Syntax	1.28	1.82	+0.54
Morphology	1.34	1.87	+0.53
Semantics	1.18	1.73	+0.55
Punctuation	1.22	1.75	+0.53
Total (Mean)	**6.52**	**8.92**	**+2.40**

Source: Author's own elaboration based on pre-test and post-test results of the experimental group.

Note. The table presents pre-test and post-test mean scores for the experimental group disaggregated by grammatical evaluation criteria. Each criterion corresponds to one test item assessing the present simple tense. Gains represent the difference between pre-test and post-test means.

As shown in Table 8, learning gains were observed across all evaluated dimensions, including syntax, morphology, semantics, and punctuation. The highest gains were identified in semantic accuracy and syntactic structure, indicating that students improved not only in rule recognition but also in meaningful sentence construction. These findings demonstrate that Wordwall-supported instruction facilitated consistent grammatical development across multiple linguistic dimensions related to the present simple tense.

Comparison of Learning Gains by Grammatical Criterion

To further examine the instructional impact of the technopedagogical intervention, learning gains were analyzed by grammatical criterion and compared between the experimental and control groups. This analysis allows for a more detailed understanding of how the use of

Wordwall influenced specific dimensions of grammar learning related to the present simple tense, beyond overall score improvements. By disaggregating results according to syntax, morphology, semantics, and punctuation, this section highlights the differential learning gains associated with each instructional approach and provides clear evidence of the comparative effectiveness of technology-supported instruction.

Table 9

Comparison of Learning Gains by Grammatical Criterion (Experimental vs. Control Group)

Grammatical Criterion	Experimental Group Gain	Control Group Gain
Syntax	+0.54	+0.10
Morphology	+0.53	+0.11
Semantics	+0.55	+0.09
Punctuation	+0.53	+0.11

Source: Author's own elaboration based on comparative analysis of pre-test and post-test results.

The comparative analysis of learning gains by grammatical criterion reveals a consistent pattern of superior performance in the experimental group across all evaluated dimensions. While students exposed to traditional instruction showed only marginal improvements, those who participated in Wordwall-supported activities demonstrated notably higher gains in syntax, morphology, semantics, and punctuation. These results indicate that the technopedagogical intervention had a differentiated and measurable effect on grammar learning, supporting the need for inferential analysis to determine whether the observed differences between instructional methods are statistically significant.

Discussion

Impact of Wordwall on Grammar Learning

This study investigated the impact of Wordwall as a technopedagogical tool on English grammar learning among eighth-grade EFL students. The results provide consistent evidence that students who received instruction supported by Wordwall significantly outperformed those who were taught through traditional methods. These findings directly address the research question by demonstrating that the integration of interactive digital activities positively influenced students' learning of the present simple tense.

The comparison between pre-test and post-test results revealed that both groups began the intervention with comparable levels of grammatical knowledge. However, the experimental group showed substantially higher learning gains than the control group after the two-week instructional period. This pattern suggests that the observed improvement was not due to initial differences between groups, but rather to the instructional approach employed during the intervention.

Learning Gains Across Grammatical Criteria

A major contribution of this study lies in the analysis of grammar learning by specific evaluation criteria. The disaggregated results showed that students in the experimental group improved consistently across syntax, morphology, semantics, and punctuation. These findings indicate that the use of Wordwall supported comprehensive grammatical development rather than isolated rule memorization.

The gains observed in syntactic accuracy and morphological control suggest that students were able to internalize grammatical rules related to verb forms and sentence structure. At the same time, improvements in semantics and punctuation indicate progress in the meaningful use of grammatical structures within context. This balanced development supports the decision to

focus on a single grammatical structure, as it allowed learners to concentrate on accuracy and form-function relationships without cognitive overload.

In contrast, the control group showed only limited improvement across these criteria. This result suggests that traditional instructional methods, while effective to some extent, may not provide sufficient opportunities for sustained practice and immediate reinforcement within short instructional periods.

Role of Technopedagogical Instruction and Feedback

The effectiveness of the Wordwall-supported instruction can be partly explained by the characteristics of the technopedagogical intervention. Wordwall activities offered structured, repetitive practice combined with immediate feedback, allowing students to identify and correct errors as they occurred. In grammar learning, where accuracy and form recognition are essential, this immediate feedback likely contributed to more effective rule internalization.

Unlike traditional classroom settings, where feedback may be delayed or limited by time constraints, the digital platform provided continuous and individualized responses to student input. This process may have enhanced students' metalinguistic awareness and supported self-regulated learning, enabling learners to monitor their own progress and adjust their responses accordingly. As a result, students were able to engage more actively with grammatical content and consolidate their learning more efficiently.

Student Engagement and Inclusive Learning Outcomes

Another relevant aspect of the findings relates to learner engagement. Grammar instruction is often perceived as repetitive or challenging by students at the basic education level. The interactive and game-based nature of Wordwall activities may have transformed grammar

practice into a more engaging experience, encouraging students to participate actively and persist in practice tasks.

The analysis of post-test results by gender revealed minimal differences within each instructional group, particularly in the experimental group. Both male and female students achieved similarly high levels of grammatical performance, indicating that the technopedagogical intervention supported inclusive learning outcomes. This finding suggests that Wordwall provided equitable learning opportunities by allowing students to interact with content at their own pace and receive individualized feedback, regardless of gender.

Statistical Confirmation of Instructional Effectiveness

The inferential analysis further supports the effectiveness of the technopedagogical intervention. The one-way ANOVA results confirmed that the differences observed between the experimental and control groups in post-test grammar performance were statistically significant. This finding indicates that the learning gains achieved by the experimental group were attributable to the instructional method rather than to random variation.

The convergence of descriptive results, criterion-based analysis, and inferential statistics strengthens the validity of the study's conclusions. Together, these analyses provide robust evidence of the instructional incidence of Wordwall on grammar learning in an authentic classroom context.

Pedagogical Implications and Limitations

From a pedagogical perspective, the findings highlight the value of integrating technopedagogical tools into grammar instruction as a complement to traditional teaching practices. The purposeful use of Wordwall allowed students to engage in focused and repeated practice of a single grammatical structure, resulting in measurable improvements within a short

instructional period. This approach aligns with student-centered learning principles and supports the development of grammatical accuracy through active engagement and immediate feedback.

Nevertheless, certain limitations must be acknowledged. The study was conducted with a relatively small sample from a single educational institution and focused exclusively on the present simple tense over a two-week period. These factors limit the generalizability of the findings to other grammatical structures, educational levels, or instructional contexts. Additionally, the use of intact classroom groups, while appropriate for authentic educational settings, may have introduced uncontrolled variables related to classroom dynamics.

Future research could examine the long-term effects of technopedagogical tools on grammar learning, explore their application to additional grammatical structures, and investigate their impact on other language skills such as writing or speaking.

Conclusions

This study set out to examine the impact of Wordwall as a technopedagogical tool on English grammar learning among eighth-grade EFL students. The findings provide clear evidence that the integration of Wordwall-supported instruction significantly enhanced students' grammatical performance when compared to traditional teaching methods. Students who engaged in interactive digital activities demonstrated higher post-test scores and greater learning gains, confirming that Wordwall had a positive instructional incidence on the learning of the present simple tense.

By focusing on a single grammatical structure and analyzing performance across specific grammatical criteria, the study was able to demonstrate that the intervention supported comprehensive grammar development. Improvements were observed in syntax, morphology,

semantics, and punctuation, indicating that students not only recognized grammatical rules but also applied them accurately and meaningfully. These results suggest that targeted technopedagogical instruction can promote deeper grammatical understanding within a relatively short instructional period.

From an educational perspective, the findings highlight the value of incorporating interactive digital tools as a complement to traditional grammar instruction in basic education contexts. The structured use of Wordwall facilitated repeated practice, immediate feedback, and active student engagement, all of which are essential elements for effective grammar learning. This approach offers practical implications for English teachers seeking to enhance instructional quality and learner outcomes through accessible and low-cost technological resources.

Despite the positive results, the study was limited by its short duration, focused grammatical scope, and specific educational context. Future research could explore the long-term effects of technopedagogical tools on grammar retention, examine their application to other grammatical structures or language skills, and replicate the study in different educational settings. Such investigations would contribute to a broader understanding of how digital tools can be strategically integrated into EFL instruction to support sustained language development.

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Por la presente se certifica que el artículo titulado: "**WORDWALL COMO HERRAMIENTA TECNOPEDAGÓGICA PARA EL APRENDIZAJE DE LA GRAMÁTICA EN ESTUDIANTES DE OCTAVO AÑO".** Un trabajo de investigación de los autores: ***Nick Paul Vásquez Duran, Odalis Belén Camino Cordero, Jorge Francisco Zambrano Pachay,*** siendo su artículo revisado por Doble Par Ciego y Sistema de Doble Revisión Editorial, antes de ser publicado.

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