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The Effects of the Gamified Digital Tool Xeropan on Contextual Vocabulary
Acquisition among Ninth-Grade EFL Students

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The Effects of the Gamified Digital Tool Xeropan on Contextual Vocabulary Acquisition among Ninth-Grade EFL Students

Efectos de la herramienta digital gamificada Xeropan en la adquisición de vocabulario contextual en estudiantes de inglés como lengua extranjera de noveno grado

Efeitos da ferramenta digital gamificada Xeropan na aquisição de vocabulário contextual em estudantes de inglês como língua estrangeira do nono ano

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Artículo de Investigación

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Abstract

This study examines the effects of the gamified digital tool Xeropan on contextual vocabulary acquisition among ninth-grade English as a Foreign Language (EFL) students. Vocabulary learning continues to represent a challenge in many EFL contexts, particularly when instruction relies on isolated memorization, which often limits retention and meaningful use of language. In response to this issue, Xeropan was implemented as a digital resource designed to provide contextualized input and interactive learning opportunities. A quantitative pre-experimental design was adopted, using a one-group pre-test and post-test approach. The participants were 24 ninth-grade students from a formal educational institution in Cuenca, Ecuador. Data were collected through a contextual vocabulary test administered before and after the intervention. Descriptive and inferential statistical analyses were conducted to examine changes in students' performance. The results showed a clear improvement in vocabulary acquisition. The mean score increased from 5.48 in the pre-test to 7.60 in the post-test, suggesting that students were able to use vocabulary more effectively in context after the intervention. In addition, the reduction in standard deviation and score range points to more consistent performance across the group, with fewer low scores and a more balanced distribution of results. These patterns seem to indicate not only improvement, but also greater stability in learning outcomes. Overall, the findings suggest that Xeropan can be a useful tool for supporting contextual vocabulary learning in EFL classrooms. While certain limitations should be considered, particularly those related to access and study design, the results contribute to current discussions on the role of digital tools in language education. Future research could explore long-term effects and applications in different educational contexts.

Keywords: Gamification, vocabulary acquisition, EFL learners, Xeropan, contextual learning.

Resumen

Este estudio examina los efectos de la herramienta digital gamificada Xeropan en la adquisición de vocabulario contextualizado en estudiantes de noveno grado de Inglés como Lengua Extranjera (EFL). El aprendizaje de vocabulario continúa representando un desafío en muchos contextos EFL, particularmente cuando la enseñanza se basa en la memorización aislada, lo que a menudo limita la retención y el uso significativo del lenguaje. En respuesta a este problema, Xeropan fue

implementado como un recurso digital diseñado para proporcionar input contextualizado y oportunidades de aprendizaje interactivo. Se adoptó un diseño cuantitativo preexperimental, utilizando un enfoque de pre-test y post-test con un solo grupo. Los participantes fueron 24 estudiantes de noveno grado de una institución educativa formal en Cuenca, Ecuador. Los datos se recolectaron mediante una prueba de vocabulario contextual aplicada antes y después de la intervención. Se realizaron análisis estadísticos descriptivos e inferenciales para examinar los cambios en el rendimiento de los estudiantes. Los resultados mostraron una mejora clara en la adquisición de vocabulario. El promedio aumentó de 5.48 en el pre-test a 7.60 en el post-test, lo que sugiere que los estudiantes pudieron usar el vocabulario de manera más efectiva en contexto después de la intervención. Además, la reducción en la desviación estándar y el rango de puntuaciones indica un desempeño más consistente en el grupo, con menos puntajes bajos y una distribución más equilibrada. Estos patrones sugieren no solo mejora, sino también mayor estabilidad en los resultados de aprendizaje. En general, los hallazgos sugieren que Xeropan puede ser una herramienta útil para apoyar el aprendizaje de vocabulario contextualizado en aulas EFL. Aunque deben considerarse ciertas limitaciones, especialmente aquellas relacionadas con el acceso y el diseño del estudio, los resultados contribuyen a las discusiones actuales sobre el uso de herramientas digitales en la enseñanza de idiomas. Futuras investigaciones podrían explorar efectos a largo plazo y su aplicación en diferentes contextos educativos.

Palabras clave: Gamificación, adquisición de vocabulario, estudiantes EFL, Xeropan, aprendizaje contextual.

Resumo

Este estudo examina os efeitos da ferramenta digital gamificada Xeropan na aquisição de vocabulário contextualizado em estudantes do nono ano de Inglês como Língua Estrangeira (EFL). A aprendizagem de vocabulário continua a representar um desafio em muitos contextos de EFL, particularmente quando o ensino se baseia na memorização isolada, o que frequentemente limita a retenção e o uso significativo da linguagem. Em resposta a esse problema, o Xeropan foi implementado como um recurso digital concebido para fornecer input contextualizado e oportunidades de aprendizagem interativa. Foi adotado um desenho quantitativo pré-experimental, utilizando uma abordagem de pré-teste e pós-teste com um único grupo. Os participantes foram 24

estudantes do nono ano de uma instituição educacional formal em Cuenca, Equador. Os dados foram coletados por meio de um teste de vocabulário contextual aplicado antes e depois da intervenção. Foram realizadas análises estatísticas descritivas e inferenciais para examinar as mudanças no desempenho dos estudantes. Os resultados mostraram uma melhoria clara na aquisição de vocabulário. A média aumentou de 5,48 no pré-teste para 7,60 no pós-teste, o que sugere que os estudantes conseguiram utilizar o vocabulário de forma mais eficaz em contexto após a intervenção. Além disso, a redução no desvio padrão e no intervalo de pontuações indica um desempenho mais consistente no grupo, com menos pontuações baixas e uma distribuição mais equilibrada. Esses padrões sugerem não apenas melhoria, mas também maior estabilidade nos resultados de aprendizagem. De modo geral, os achados sugerem que o Xeropan pode ser uma ferramenta útil para apoiar a aprendizagem de vocabulário contextualizado em salas de aula de EFL. Embora algumas limitações devam ser consideradas, especialmente aquelas relacionadas ao acesso e ao desenho do estudo, os resultados contribuem para as discussões atuais sobre o uso de ferramentas digitais no ensino de línguas. Pesquisas futuras poderiam explorar efeitos de longo prazo e sua aplicação em diferentes contextos educacionais.

Palavras-chave: Gamificação, aquisição de vocabulário, estudantes de EFL, Xeropan, aprendizagem contextual.

Introduction

The increasing integration of digital technologies in English as a Foreign Language (EFL) education has led to growing interest in gamified learning tools as a means to enhance learner engagement and language outcomes. Gamification, understood as the application of game elements such as points, levels, badges, and challenges in non-game learning contexts, has been shown to positively influence participation, learning performance, and retention in ESL/EFL learning environments (Laksanasut, 2025). Additionally, research on digital game-based learning has demonstrated its effectiveness in supporting vocabulary development and retention in EFL contexts (Chowdhury et al., 2024). Despite these advances, vocabulary acquisition remains a persistent challenge for EFL learners, particularly in contexts where exposure to English is limited and instruction relies heavily on decontextualized memorization practices. Such approaches often result

in low retention rates, reduced fluency, and difficulty using vocabulary meaningfully in communicative situations, negatively affecting learners' overall language proficiency and motivation. To address this issue, gamified digital platforms have been proposed as innovative solutions that provide contextualized input, immediate feedback, and sustained practice opportunities. One such platform is Xeropan, a gamified mobile language-learning application that offers lessons aligned with specific learning objectives, real-world simulated video content, progress tracking, intelligent chatbot interaction, and reward systems such as badges to enhance learner engagement and interactivity (Cintia, 2023; Hrabouski, 2025). Empirical evidence specifically examining Xeropan has shown that its use can lead to improvements in learners' language performance and learning processes (Thékes, 2021). Previous research highlights that gamified environments grounded in Second Language Acquisition theories, such as Krashen's Input Hypothesis, cognitive repetition models, and motivational frameworks like Self-Determination Theory and Flow Theory, can facilitate deeper lexical processing and improve vocabulary retention when learners engage with language in meaningful contexts (Laksanasut, 2025). However, although studies have widely documented the general benefits of gamification in EFL education, there is a noticeable lack of empirical research specifically examining the effects of Xeropan on contextual vocabulary acquisition. This gap underscores the need for focused investigation into how this particular gamified tool supports vocabulary learning within formal EFL settings. Accordingly, the study is guided by the following research questions: Is there a significant difference in EFL learners' contextual vocabulary acquisition before and after the use of the gamified digital tool Xeropan? Is there a significant difference in EFL learners' vocabulary learning outcomes between pre-test and post-test scores after the implementation of the gamified digital tool Xeropan? Is there a significant difference in EFL learners' vocabulary retention between pre-test and post-test scores after the implementation of the gamified digital tool Xeropan?

Finally, the present study aims to analyze the effects of the gamified digital tool Xeropan on contextual vocabulary acquisition in EFL learners, addressing an important pedagogical and research need in contemporary language education.

Methodology

This study adopted a quantitative research approach, which focuses on the collection and analysis of numerical data in order to examine measurable changes and determine the degree to which an intervention influences a specific outcome. Quantitative research seeks to quantify variables and analyze data through statistical procedures to test hypotheses and generate objective conclusions, relying on logical and systematic processes grounded in empirical and positivist perspectives (Ghanad, 2023). This approach was appropriate for the present study because it aimed to measure changes in EFL learners' contextual vocabulary acquisition through numerical scores obtained before and after the implementation of the gamified digital tool Xeropan.

This research employed a pre-experimental design with one group and pre - test and post - test measurements. This design is characterized by the absence of a control group and the evaluation of the effects of a treatment by comparing participants' performance before and after the intervention (Fraenkel et al., 2023; Creswell, 2023, as cited in Purnomo et al., 2024). The design was selected because it allows the researcher to identify learning gains attributable to the intervention by analyzing changes within the same group of participants. In this study, all participants were exposed to the same instructional treatment using Xeropan, and their vocabulary performance was measured at two different points in time.

In quantitative research, the population refers to the entire group of individuals who share specific characteristics and to whom the results of the study are intended to be generalized (Mustafa & Robillos, 2020). Clearly defining the population allows the researcher to delimit the scope of the study and ensure that the findings are meaningful within a specific educational context. In this study, the population consisted of ninth-grade students enrolled in a formal educational institution in Cuenca, Ecuador. The sample was composed of 24 students from a single ninth-grade class who participated in the study during the academic term. Population and sample are essential concepts in research, as they enable researchers to define the group of interest and draw valid and reliable conclusions based on representative data (Ahmad et al., 2023). The selected sample was considered appropriate for the study's objectives, as it reflected the characteristics of the target population and allowed for feasible data collection within the educational context.

A convenience sampling technique was used in this study. This type of non-probability sampling involves the selection of participants who are easily accessible and available to the researcher (Golzar et al., 2022). This sampling method was employed because the researcher had direct access to the participants and the study was conducted within an existing classroom environment. Although this technique does not allow for broad generalization, it is suitable for classroom-based quantitative research focused on measuring instructional effects.

The study examined two main variables. The independent variable was the use of the gamified digital tool Xeropan as an instructional strategy, while the dependent variable was students' contextual vocabulary acquisition. In quantitative research designs, the independent variable refers to the factor that is deliberately manipulated or introduced by the researcher in order to examine its influence, whereas the dependent variable represents the outcome that is expected to change as a result of that intervention (Thomas & Zubkov, 2023). Contextual vocabulary acquisition was operationalized through students' ability to understand and use vocabulary items within meaningful contexts, as measured by test scores.

Data were collected using a quantitative research instrument, specifically a contextual vocabulary test administered as both a pre - test and a post - test. Quantitative research instruments are essential for collecting objective and reliable data, as they allow researchers to systematically measure learning outcomes and ensure the credibility of research findings (Pentang, 2023). The test consisted of structured items designed to assess vocabulary comprehension and use in context and employed a numerical scoring scale to facilitate statistical analysis.

The research procedure followed a sequential process. First, a pre - test was administered to the participants to determine their initial level of contextual vocabulary acquisition. Second, the intervention was implemented through the use of the Xeropan platform during regular instructional sessions. Finally, a post - test was administered to measure changes in vocabulary acquisition after the intervention. This structured sequence ensured consistency in data collection and allowed for accurate comparison between pre-intervention and post-intervention results.

Data analysis was conducted using statistical techniques appropriate for quantitative pretest–posttest designs. Quantitative data analysis enables researchers to examine differences, identify patterns, and determine the effectiveness of an intervention through numerical evidence (Ghanad,

2023). Descriptive statistics were used to summarize students' performance, and inferential statistical analysis was applied to determine whether statistically significant differences existed between pretest and posttest scores, thereby evaluating the effect of Xeropan on students' contextual vocabulary acquisition.

Results

This section presents the results obtained from the pre-test and post-test applied to evaluate students' vocabulary acquisition after the implementation of the digital tool Xeropan. Descriptive statistics were used to compare students' performance before and after the intervention, focusing on measures of central tendency, dispersion, and score distribution.

Table 1

Descriptive statistics of pre-test and post-test scores

Test	N	Meann	Median	Mode	SD
Pre-test	24	5.48	5.25	4, 5, 7, 8.5	1.91
Post-test	24	7.60	7.75	7.5, 8	1.20

Note. SD = Standard deviation.

Table 1 shows the descriptive statistics of students' scores in both tests. The mean score increased from 5.48 in the pre-test to 7.60 in the post-test, representing an improvement of 2.12 points. This indicates a clear improvement in students' vocabulary performance following the intervention. Similarly, the median rose from 5.25 to 7.75, suggesting that the improvement was not limited to a small group of students but reflected a general upward shift in performance across the sample.

In addition, the standard deviation decreased from 1.91 in the pre-test to 1.20 in the post-test, indicating a reduction in score dispersion. This suggests that students' performance became more consistent after the intervention, with fewer differences between high- and low-performing learners. Although the mode presented multiple values in both tests, its contribution to the overall interpretation was limited, as it did not show a clear dominant score pattern

Table 2*Score range comparison between pre-test and post-test*

Test	Minimum	Maximum	Range
Pre-test	2.0	8.5	6.5
Post-test	5.5	9.5	4.0

Note. Range represents the difference between the highest and lowest scores obtained in each test. Author's own data.

Table 2 presents the comparison of score ranges. The minimum score increased significantly from 2.0 in the pre-test to 5.5 in the post-test, indicating that even the lowest-performing students improved after the intervention. The maximum score also rose slightly, from 8.5 to 9.5, showing that higher-performing students continued to progress. More importantly, the range decreased from 6.5 to 4.0, reflecting a reduction in the gap between the lowest and highest scores. This suggests a more homogeneous performance among students after the use of Xeropan.

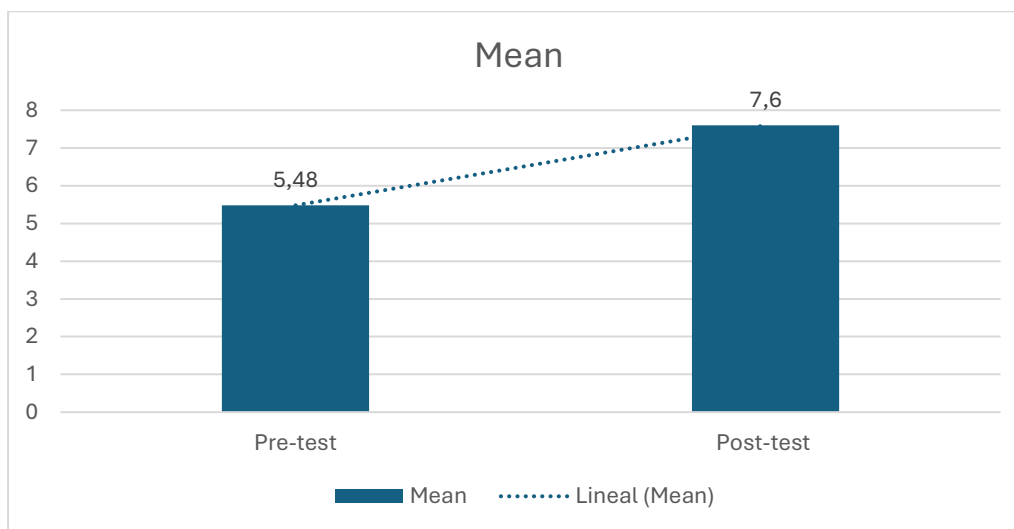
Figure 1*Comparison of mean scores between the pre-test and post-test.*

Figure 1 illustrates the increase in mean scores between the pre-test and post-test. The visual comparison confirms the numerical findings presented in Table 1, showing a clear upward trend in

students' vocabulary performance after the intervention. This increase supports the interpretation that the use of the digital tool contributed positively to learning outcomes.

Figure 2

Distribution of students' scores by score range in the pre-test and post-test.

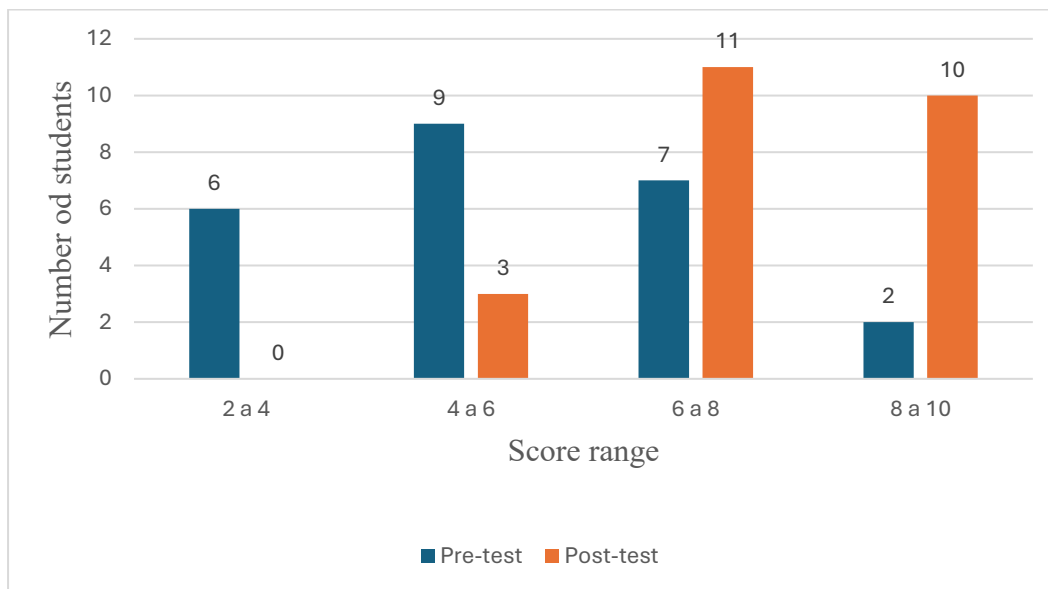


Figure 2 shows the distribution of students' scores across different score ranges. In the pre-test, most students were concentrated in the lower ranges, with 6 students scoring between 2–4 and 9 students between 4–6. In contrast, the post-test results reveal a notable shift toward higher score ranges, with 11 students in the 6–8 range and 10 students in the 8–10 range, while no students remained in the lowest range. This redistribution indicates a substantial improvement in overall performance and suggests that the intervention helped move the majority of students to higher levels of vocabulary proficiency.

Overall, the results demonstrate a consistent pattern of improvement across all statistical measures. The increase in central tendency values, the reduction in variability, and the shift in score distribution collectively suggest that the implementation of Xeropan had a positive effect on students' vocabulary acquisition. These findings provide empirical support for the effectiveness of digital tools in enhancing language learning outcomes in EFL contexts.

Discussion

The findings of this study provide relevant insight into the impact of the gamified digital tool Xeropan on students' contextual vocabulary acquisition. The increase observed in the mean score from the pre-test to the post-test reflects a noticeable improvement in students' performance, suggesting that learners were able not only to recognize new vocabulary, but also to understand and use it more effectively in context. In this regard, the results respond directly to the research questions, indicating that the use of Xeropan may positively influence vocabulary learning outcomes in EFL settings.

One possible explanation for this improvement lies in the type of learning experience promoted by the platform. Unlike more traditional approaches that focus on memorizing isolated words, Xeropan presents vocabulary through contextualized and interactive situations. This seems to encourage deeper engagement with the language and may support retention over time. From a pedagogical perspective, this shift toward contextual learning appears to play an important role in vocabulary development, which is consistent with previous research highlighting the benefits of contextualized instruction for comprehension and retention (Aprianti, 2024).

Beyond the increase in average scores, the results also reveal a change in score distribution. Lower scores present in the pre-test were no longer observed in the post-test, which may indicate that students who initially struggled were able to improve. At the same time, higher scores became more frequent, suggesting continued progress among stronger learners. This overall shift reflects a general improvement across the group rather than isolated gains, which is particularly relevant in diverse EFL classrooms.

Another important aspect is the reduction in variability after the intervention. The decrease in standard deviation suggests that differences among students' performance became smaller, indicating a more homogeneous group. This may be explained by features of the platform such as repeated exposure to vocabulary, immediate feedback, and opportunities for self-paced learning, all of which could contribute to more balanced learning outcomes.

These findings are in line with previous studies on digital and gamified approaches to language learning. Although Xeropan is not strictly a game-based platform, it incorporates elements such as

interaction and progression that are characteristic of gamified environments. Research has shown that these approaches can enhance vocabulary acquisition by increasing motivation and promoting repeated exposure to lexical items (Chowdhury et al., 2024; Vnucko & Klimova, 2023), as well as improving retention compared to traditional methods (Babazade, 2024). Therefore, the results of this study align with broader evidence supporting the integration of digital tools in EFL instruction.

Despite these positive outcomes, certain limitations should be acknowledged. Xeropan is a paid platform, which may limit access in some contexts, and it does not allow teachers to assign tasks directly, reducing opportunities for guided practice. In addition, the relatively small sample size ($n = 24$) and the absence of a control group limit the generalizability of the findings and make it difficult to attribute improvements exclusively to the intervention.

From a pedagogical perspective, the results suggest that tools like Xeropan can be valuable when used as a complement to traditional teaching. Students may benefit from independent practice through the platform, while classroom time can be used to reinforce vocabulary through interaction and communicative activities. This combination may help create a more dynamic and effective learning environment.

In conclusion, the findings indicate that Xeropan is associated with improvements in students' contextual vocabulary acquisition, reflected in higher performance, changes in score distribution, and reduced variability. Although the results should be interpreted with caution, they contribute to the growing body of research on digital tools in language learning and highlight the importance of creating engaging and meaningful learning experiences in EFL contexts.

Conclusions

The purpose of this study was to examine the effects of the gamified digital tool Xeropan on contextual vocabulary acquisition among ninth-grade EFL students. Based on the comparison between pre-test and post-test results, the findings suggest that the use of this tool was associated with a noticeable improvement in students' vocabulary learning outcomes. Rather than reflecting isolated progress, the results appear to show a consistent development across the group.

In relation to the first research question, which explored whether there was a difference in students' contextual vocabulary acquisition before and after the intervention, the results point to a clear improvement. The increase in both mean and median scores indicates that learners became more capable of understanding and using vocabulary within meaningful contexts. This seems to reinforce the idea that exposure to contextualized input, especially through interactive environments, can support vocabulary development in EFL learners.

Regarding the second research question, focused on changes in vocabulary learning outcomes, the post-test results suggest that students achieved higher levels of performance after engaging with the platform. While this improvement may be linked to several factors, it is reasonable to consider that the structure and design of the tool—particularly its emphasis on interaction and repetition—played a role in supporting learning. In this sense, the findings provide evidence that the integration of digital tools can contribute positively to vocabulary acquisition when used as part of the learning process.

With respect to the third research question, which addressed vocabulary retention, the results also offer relevant insights. The reduction in score variability, together with the increase in minimum scores, suggests that students' learning became more stable and consistent over time. This may indicate that the tool not only supported initial learning, but also helped learners consolidate vocabulary knowledge. Although retention was not measured over a long period, these patterns seem to point toward short-term consolidation of learning.

Taking together, the results of this study suggest that Xeropan can be considered a useful resource for supporting contextual vocabulary acquisition in EFL contexts. Its ability to present language in meaningful situations, along with opportunities for repeated exposure, appears to create conditions that favor learning. However, it is important to view these findings with caution. The relatively small sample size ($n = 24$) and the absence of a control group limit the extent to which the results can be generalized. In addition, factors such as students' prior knowledge or external practice may also have influenced the outcomes.

From a pedagogical perspective, the study highlights the potential value of integrating digital tools into language teaching practices. Rather than replacing traditional instruction, tools like Xeropan may be more effective when used as complementary resources that support independent practice

and reinforce classroom learning. For example, students could interact with the platform outside class, while in-class activities focus on communication, application, and deeper processing of vocabulary. This type of combination may help create a more balanced and engaging learning environment.

Finally, this study contributes to the growing discussion on the role of technology in language education, particularly in EFL settings. While the findings are encouraging, further research would be needed to explore long-term effects, different learner populations, and more controlled experimental designs. Understanding how digital tools function across contexts will be essential for making informed decisions about their integration into teaching practices.

References

- Ahmad, N., Alias, F. A., Aina, N. ', & Razak, A. (s/f). *Understanding population and sample in research: Key concepts for valid conclusions*. Edu.my. Retrieved from: https://appspenang.uitm.edu.my/sigcs/2023-2/Articles/20234_UnderstandingPopulationAndSampleInResearch.pdf
- Babazade, Y. (2024). The impact of digital tools on vocabulary development in second language learning. *Journal of Azerbaijan Language and Education Studies*, 1(1), 35–41. <https://doi.org/10.69760/jales.2024.00103>
- Baiq Ika Aprianti, B. I. A. (2024). Improving vocabulary acquisition: Technology-integrated, gamified, and contextualized approaches in EFL learning. *Journal of Educational Studies*, 2(2). <https://doi.org/10.58218/jes.v2i2.1144>
- Chowdhury, M., Dixon, L. Q., Kuo, L.-J., Donaldson, J. P., Eslami, Z., Viruru, R., & Luo, W. (2024). Digital game-based language learning for vocabulary development. *Computers and Education Open*, 6(100160), 100160. <https://doi.org/10.1016/j.caeo.2024.100160>
- Cintia, F. (2023). *Using mobile technology in language learning*. Kyiv National Economic University. <https://dspace.kme.org.ua/server/api/core/bitstreams/6f19042d-e659-4285-9174-2bccc9878150/content>

- Ghanad, A. (2023). An overview of quantitative research methods. *International journal of multidisciplinary research and analysis*, 6(08), 3794-3803. Retrieved from: <https://doi.org/10.47191/ijmra/v6-i8-52>
- Golzar, J., Noor, S., & Tajik, O. (2022). Convenience sampling. *International Journal of Education & Language Studies*, 1(2), 72-77. https://researchgate.net/publication/366390016_Convenience_Sampling
- Hrabouski, A. K. (2025). Use of generative ai for foreign language learning gamification. БГУИР. <http://libeldoc.bsuir.by/handle/123456789/60826>
- Laksanasut, S. (2025). Gamification in ESL/EFL education: Transforming language learning and teaching through play. *TESOL and Technology Studies*, 6(1), 16-29. <https://doi.org/10.48185/tts.v6i1.1562>
- Mustafa, F., & Robillos, R. J. (2020). Proper sample sizes for English language testing: A simple statistical analysis. *Humanities & Social Sciences Reviews*, 8(4), 442-452. <https://doi.org/10.18510/hssr.2020.8443>
- Pentang, J. (2023). Quantitative research instrumentation for educators. Philpapers.org. Retrieved from: <https://philpapers.org/archive/PENQRI.pdf>
- Purnomo, W., Ardayati, A., & Fiani, A. (2024). Teaching Reading Comprehension: A pre-experimental research of Story Mapping Strategy. *Dharma Acariya Nusantara: Jurnal Pendidikan, Bahasa Dan Budaya*, 2(2), 37-48. <https://doi.org/10.47861/jdan.v2i2.1152>
- Thékes, I., & Szilvássy, O. (2021). The impact of Xeropan an online application assisting language learning on the processes of foreign language learning. *TEM Journal*, 10(2), 639-644. <https://doi.org/10.18421/tem102-19>
- Thomas, D., & Zubkov, P. (2023). Quantitative research designs. *Quantitative research for practical theology*, 5(6), 103-114. Retrieved from: https://www.researchgate.net/profile/Darrin-Thomas/publication/370630979_Quantitative_Research_Designs/links/645a8b0c2edb8e5f094afcf6/Quantitative-Research-Designs.pdf
- Vnucko, G., & Klimova, B. (2023). Exploring the potential of digital game-based vocabulary learning: A systematic review. *Systems*, 11(2), 57. <https://doi.org/10.3390/systems11020057>

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