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The Role of Wordwall in Improving Interactive Learning Quality: An Analisis of Empirical Studies through Systematic Literature Review

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ABSTRACT

This study investigates the role of Wordwall in enhancing the quality of interactive learning using a Systematic Literature Review (SLR) approach based on PRISMA guidelines. From an initial pool of 81 studies, 40 empirical articles (international and national) were selected for synthesis. The results indicate that Wordwall significantly contributes to increased learning motivation, outcomes, engagement, collaboration, communication, and concept mastery across educational levels. The findings affirm the relevance of digital gamification tools like Wordwall in supporting 21st-century education.

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1. INTRODUCTION

The advancement of digital technology has transformed educational practices, notably in the adoption of game-based platforms like Wordwall. Wordwall integrates gamification elements—quizzes, leaderboards, drag-and-drop games—to foster engaging, interactive learning environments. Numerous studies, including those by (Dhaifi et al., 2024), (Dwiningrum et al., 2024), and (Belvin Gulo et al., 2024), report improvements in student motivation, engagement, and learning achievement due to Wordwall usage).

(Al-Aziz et al., 2025) and (Alfares, 2025) further demonstrated that Wordwall significantly enhanced academic performance and motivation, particularly in mathematics and language acquisition. This aligns with research by (Bouzaiane & Youzbashi, 2024) and (Kocabatmaz & Saraçoğlu, 2024), highlighting gamification's role in boosting critical thinking and 21st-century skills. Despite growing evidence, a comprehensive synthesis across diverse contexts was lacking motivating this SLR.

This research aims to fill the gap through an empirical study analysis with a **Systematic Literature Review (SLR)** approach, focusing on synthesizing research results related to the effectiveness of Wordwall in improving the quality of interactive learning.

2. METHOD OF THE RESEARCH

2.1 Research Design

This study uses a Systematic Literature Review (SLR) approach referring to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. SLR is used to identify, assess, and synthesize empirical findings from published studies on the use of Wordwall in interactive learning. The use of the SLR method is supported by previous research that recommends structured review methodologies to ensure transparency and comprehensiveness in synthesizing evidence (Lisandra et al., 2025). The following is a PRISMA diagram that illustrates the stages of article selection in this study:

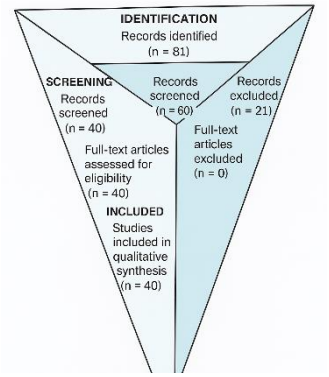

Figure 1. PRISMA Diagram

2.2 Data Sources and Inclusion Criteria

Data sources were taken from Scopus-indexed international journal databases and SINTA-accredited national journals within the time span of 2015–2025. Inclusion criteria include:

a. Empirical research on the use of Wordwall in learning
b. Publications in the form of peer-reviewed journal articles
c. Articles written in English or Indonesian

Similar criteria for inclusion and exclusion are also found in previous studies using the SLR approach in the field of educational technology (Gustini & Yuliantina, 2025); (Bouzaiane & Youzbashi, 2024).

2.3 Selection Procedure

The article selection process was conducted through four stages: identification, screening, eligibility, and inclusion, referring to the PRISMA flow as illustrated in the diagram. This process follows the systematic selection method as applied in the research of (Bouzaiane & Youzbashi, 2024) and (Coangi et al., 2024), which emphasizes the importance of methodological rigor in literature reviews. From 81 identified articles, 40 were selected based on methodological rigor, thematic relevance, and diversity in geography, level, and subject area.

2.4 Data Extraction and Analysis

The data extracted from each article included author name, year of publication, country, research objectives, methodology, sample, results, and main findings. Data analysis was carried out through thematic synthesis to identify patterns, themes, and key findings across the included studies. The synthesis technique refers to the approach used by (Dhaifi et al., 2024) and (Dwiningrum et al., 2024) in analyzing the effectiveness of Wordwall in learning.

3. RESULTS AND DISCUSSIONS

A visualization of the distribution of research themes is shown in the following bar chart.

3.1 Distribution of Research Themes

The following bar chart illustrates the number of studies that focus on different thematic outcomes of using Wordwall in education:

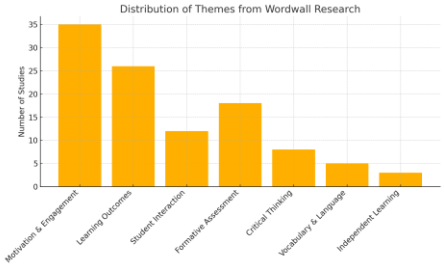

Figure 1.

3.2 Distribution of Methodologies

The pie chart below shows the methodological approaches used in the 40 selected studies.

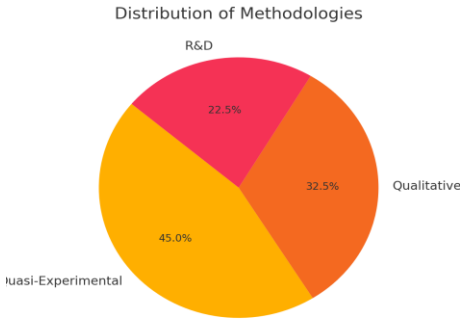

Figure 1.

3.3 Thematic Discussion

The findings from 40 selected studies reveal several consistent outcomes regarding the effectiveness of Wordwall:

a. Motivation and Engagement: The most common benefit, noted in 35 studies, was increased student motivation and active engagement. Gamified elements such as real-time quizzes, competitive features, and visual feedback are key contributors.
b. Learning Outcomes: 26 studies reported significant improvement in academic performance due to the integration of Wordwall.
c. Formative Assessment: 18 studies utilized Wordwall as a tool for ongoing formative assessments, allowing instant feedback and progress tracking.
d. Student Interaction: 12 studies emphasized improved interaction among students and between students and teachers during classroom activities.
e. Critical Thinking: 8 studies demonstrated development in analytical thinking and reasoning through puzzle-based or logic-enhancing activities.
f. Vocabulary & Language Mastery: 5 studies used Wordwall in EFL or language subjects, showing notable vocabulary acquisition.
g. Independent Learning: 3 studies linked Wordwall activities with the development of student autonomy and time management skills.

A visualization of the distribution of research themes is shown in the following bar chart.

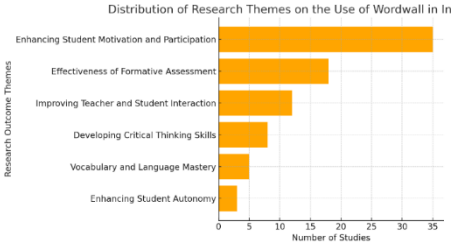

Figure 1.

3.4 Thematic Discussion

Table 1.

No	Author(s) & Year	Country	Objective	Methodology	Main Findings
1	Al-Aziz et al. (2025)	Palestine	Math Motivation	Quasi-experiment	Improved motivation and performance
2	Alfares (2025)	Saudi Arabia	EFL Vocabulary	Quantitative	Vocabulary acquisition improved
3	Belvin Gulo et al. (2024)	Indonesia	Vocabulary Learning	Experimental	Improved outcomes
4	Bouzaiane & Youzbashi (2024)	Oman	Vocabulary Retention	Case Study	Enhanced retention

No	Author(s) & Year	Country	Objective	Methodology	Main Findings
5	Dhaifi et al. (2024)	Indonesia	Autonomy & Vocabulary	Empirical	Improved independent learning
6	Dwiningrum et al. (2024)	Indonesia	Vocabulary Enrichment	Empirical	Effective for vocabulary learning
7	Kocabatmaz & Saraçoğlu (2024)	Turkey	Math Achievement	Quasi-experiment	Increased success & attitude
8	Lisandra et al. (2025)	Indonesia	Civics Motivation	Mixed-method	Improved motivation & thinking
9	Adawiyah et al. (2024)	Indonesia	Math Concepts	Quasi-experiment	Improved understanding
10	Aprilia et al. (2024)	Indonesia	Vocabulary Assessment	Mixed-method	Inclusive and effective
11	Amri & Sukmaningrum (2023)	Indonesia	Writing Skills	Classroom action	Improved writing
12	Amri & Rahmawati (2023)	Indonesia	Writing Motivation	Action research	Increased motivation
13	Annisa et al. (2025)	Indonesia	Learning Activity	Quasi-experiment	More active students
14	Bueno et al. (2022)	USA	Online Learning	Usability Study	Effective and easy to use
15	Coangi et al. (2024)	Indonesia	Wordwall as Quiz	Qualitative	Positive student perception
16	Elhefni et al. (2023)	Indonesia	Indonesian Language	Empirical	Improved outcomes
17	Fadillah (2024)	Indonesia	Math Evaluation	R&D	Effective instruments developed
18	Fakhruddin et al. (2021)	Indonesia	Arabic Vocabulary	Quantitative	Vocabulary improved
19	Fianto et al. (2024)	Indonesia	Quiz Media Perception	Survey	Well received by students
20	Gustini & Yuliantina (2025)	Indonesia	Speech Delay	Quantitative	Improved speaking skills
21	Ilma & Susilawati (2024)	Indonesia	Islamic Culture	Mixed-method	Motivation improved
22	Islam et al. (2022)	Indonesia	CEFR Evaluation	R&D	Improved student understanding
23	Jannah et al. (2017)	Indonesia	Vocabulary Media	Survey	Positive learning response
24	Khasanatun et al. (2023)	Indonesia	PAI Learning	Quantitative	Improved PAI outcomes
25	Korol et al. (2021)	Latvia	Digital Tools in Education	Mixed-method	Increased engagement
26	Magasvaran et al. (2022)	Malaysia	Vocabulary C&K	Quantitative	Improved mastery
27	Marhamah & Mulyadi (2020)	Indonesia	Vocabulary & Intelligence	Quasi-experiment	Improved outcomes
28	Mayanda et al. (2024)	Indonesia	Cognitive Learning	Quasi-experiment	Better learning results
29	Moreira Oña et al. (2025)	Ecuador	Elementary English	Mixed-method	Improved vocabulary
30	Mulyawati & Budiarti (2024)	Indonesia	Early Childhood Skills	Quasi-experiment	Improved language skills
31	Nenohai et al. (2022)	Indonesia	Chemistry Gamification	R&D	Higher learning interest

No	Author(s) & Year	Country	Objective	Methodology	Main Findings
32	Nisa et al. (2024)	Indonesia	Thematic Evaluation	Qualitative	Better engagement
33	Novera et al. (2025)	Indonesia	PAI Outcomes	Empirical	Improved religious learning
34	Nuraini et al. (2024)	Indonesia	Student Motivation	Qualitative	Higher motivation
35	Putri et al. (2023)	Indonesia	Critical Thinking	Quasi-experiment	Improved thinking skills
36	Rezeki & Amelia (2025)	Indonesia	Math Learning	Quasi-experiment	Aligned with styles
37	Sakamurti et al. (2024)	Indonesia	Literacy Skills	R&D	Better literacy & interest
38	Saputri & Sukmawati (2024)	Indonesia	Science Literacy	Quasi-experiment	Significant improvement
39	Wulan et al. (2024)	Indonesia	Vocabulary Learning	Action research	87% improvement
40	Yudhawati et al. (2024)	Indonesia	Grammar Mastery	Action research	20% increase in performance

4. CONCLUSIONS

4.1 Conclusions

Based on a systematic literature review of 40 selected empirical studies, it can be concluded that the use of Wordwall significantly enhances the quality of interactive learning. It improves students' motivation, learning outcomes, engagement, collaboration, and critical thinking. Wordwall's gamification features contribute effectively to the implementation of meaningful and student-centered learning in various educational contexts.

4.2 Suggestions

Educators are encouraged to integrate Wordwall in both face-to-face and online learning as an evaluation and enrichment tool. Future research should explore the development of more advanced and contextually adaptable Wordwall features, including their alignment with differentiated instruction and adaptive learning frameworks. Institutional support is also recommended to improve teachers' digital pedagogical competence.

REFERENCES

Adawiyah, S. R., Maritasari, D. B., & Yazid, M. (2024). The effect of interactive learning media on students' understanding of basic mathematical concepts. Interdisciplinary Journal of Education, 2(3), 211–219. https://doi.org/10.61277/ije.v2i3.156

Al-Aziz, T. A., Salha, S., & Sarah, A. A. (2025). The effect of using Wordwall on academic achievement and motivation in mathematics. An-Najah University Journal for Research - B (Humanities), 39(1), 43–52. https://doi.org/10.35552/0247.39.1.2305

Alfares, N. S. (2025). Investigating the Efficacy of Wordwall Platform in Enhancing Vocabulary Learning in Saudi EFL Classroom. *International Journal of Game-Based Learning*, *15*(1). https://doi.org/10.4018/IJGBL.367870

Amri, F., & Rahmawati. (2023). Implementation of Wordwall as a learning media to improve students' writing skill. Universitas PGRI Semarang Journal, 8(1).

Amri, F., & Sukmaningrum, R. (2023). Implementation of Wordwall to improve writing skill. International Journal of Multidisciplinary Approach Research and Science, 1(3), 495–502. https://doi.org/10.59653/ijmars.v1i03.255

Annisa, U. F., Krismanto, W., Tuken, R., & Pasinggi, Y. S. (2025). Wordwall integration in learning: Is it effective in encouraging student activity? International Journal of Research in Education, 5(1), 59–69. https://doi.org/10.26877/ijre.v5i1.1210

Aprilia, P. K., Mistar, J., Mustofa, M., & Syabilla, Z. F. (2024). Wordwall as a vocabulary assessment tool. English Review: Journal of English Education, 12(1), 167–176. https://doi.org/10.25134/erjee.v12i1.9004

Belvin Gulo, P., Tahir Harefa, A., Telaumbanua, Y. A., & Zega, R. (2024). *Scope of English Language Teaching, Literature and Linguistics Program Studi Pendidikan Bahasa Inggris FKIP Universitas Muslim The Effect of Interactive Multimedia Wordwall on Students' Vocabulary Learning Outcomes at SMA Negeri 1 Huruna*. *7*(2), 200–219. https://ejournals.umma.ac.id/index.php/seltics

Bouzaiane, B., & Youzbashi, A. (2024). The Role of Digital-Game Based Language Learning in EFL Vocabulary Learning and Retention: A Case Study at a Higher Educational Institute in Oman. *Journal of Language Teaching and Research*, *15*(5), 1660–1669. https://doi.org/10.17507/jltr.1505.27

Bueno, M., Perez, F., Valerio, R., Mareth, E., & Areola, Q. (2022). Wordwall and Google Sites for online learning. Journal of Global Business and Social Entrepreneurship, 7(23).

Coangi, N., Machmud, K., & Mohammad, T. F. (2024). *Exploring Students' Perceptions Of Using Wordwall Quiz Game As An Evaluation Tool In English Learning At Viii Grade Mts Al-Mabrur Bone Raya*. https://journalpedia.com/1/index.php/jip/index

Dhaifi, I., Setyosari, P., Widiati, U., & Ulfa, S. (2024). Enhancing Autonomous Learning and Vocabulary Mastery through the Effective Utilization of Online Resources and Word Wall Activities. *AL-ISHLAH: Jurnal Pendidikan*, *16*(3). https://doi.org/10.35445/alishlah.v16i3.5690

Dwiningrum, N., Bunau, E., & Rahmani, E. F. (2024). The Use Of Wordwall To Enrich Students' Vocabulary. *JPBII*, *12*(1), 2615–4404. https://doi.org/10.23887/jpbi.v12i1.3308

Elhefni, E., et al. (2023). Wordwall media to improve Indonesian learning outcomes. AL-ISHLAH: Journal of Education, 15(2).

Fadillah, F. (2024). Development of Wordwall-based math evaluation instruments. Educational Researcher Journal, 1(3).

Fakhruddin, A. A., et al. (2021). Wordwall for Arabic vocabulary mastery. Arabiyatuna: Jurnal Bahasa Arab, 5(2), 217. https://doi.org/10.29240/jba.v5i2.2773

Fianto, Z. A., et al. (2024). PGSD students' perceptions on Wordwall. Jurnal Ilmiah Sekolah Dasar, 8(1), 101–109. https://doi.org/10.23887/jisd.v8i1.65492

Gustini, E., & Yuliantina, I. (2025). Development Of Wordwall-Based Learning Media To Improve Speaking Skills In Children With Speech Delay. *International Journal of Teaching and Learning (INJOTEL)*, *3*(4).

Ilma, F., & Susilawati, S. (2024). Wordwall for Islamic cultural history. Educazione: Journal of Education and Learning, 2(1), 38–51. https://doi.org/10.61987/educazione.v2i1.544

Islam, U., et al. (2022). CEFR-based learning tools with Wordwall. Journal of Arabic Linguistics and Education, 8(1), 65–83.

Jannah, M., et al. (2017). EFL students' perspectives on Wordwall. Journal of English Language Teaching, 6(1)

Khasanatun, S., et al. (2023). Application of Wordwall in PAI. ICIIS Conference Proceedings, 2.

Kocabatmaz, H., & Saraçoğlu, G. K. (2024). The Effect of Educational Digital Games on Academic Success and Attitude in 3rd Grade Mathematics Class. *Participatory Educational Research*, *11*(2), 230–244. https://doi.org/10.17275/per.24.28.11.2

Korol, A., et al. (2021). Multimedia systems in professional training. Environment, Technology, Resources, 2, 244–248. https://doi.org/10.17770/etr2021vol2.6570

Lisandra, R., et al. (2025). Wordwall to improve civic learning. Mutiara: Multidisciplinary Scientific Journal, 3(1).

Magasvaran, V., et al. (2022). Boosting vocabulary with Wordwall. International Journal of Academic Research in Progressive Education and Development, 11(1). https://doi.org/10.6007/ijarped/v11-i1/11852

Marhamah, M., & Mulyadi, M. (2020). Wordwall and linguistic intelligence in vocabulary learning. Journal of Educational and Social Research, 10(2), 134–142. https://doi.org/10.36941/jesr-2020-0033

Mayanda, I., et al. (2024). Brain-based learning with Wordwall. Jurnal Penelitian Pendidikan IPA, 10(1), 261–269. https://doi.org/10.29303/jppipa.v10i1.5518

Moreira Oña, M. E., et al. (2025). Wordwall in elementary English. Estudios y Perspectivas Revista Científica y Académica, 4(4), 1640–1657. https://doi.org/10.61384/r.c.a..v4i4.753

Mulyawati, S., & Budiarti, E. (2024). Wordwall media in early childhood. JSRET, 3(3).

Nenohai, J., et al. (2022). Gamification-based Wordwall for chemistry. Orbital, 14(2), 116–122. https://doi.org/10.17807/orbital.v14i2.16206

Nisa, A. K., et al. (2024). Wordwall in elementary thematic evaluation. EDUCARE: Journal of Primary Education, 5(1), 23–34. https://doi.org/10.35719/educare.v5i1.234

Novera, Y., et al. (2025). Wordwall in PAI learning. Global Journal of Educational Research and Technology, 1(1), 20–24.

Nuraini, N., et al. (2024). Wordwall to improve motivation. International Journal of Education, 3(2).

Putri, A. L., et al. (2023). STAD model with Wordwall for critical thinking. Jurnal Penelitian Pendidikan IPA, 9(10), 8070–8078. https://doi.org/10.29303/jppipa.v9i10.3838

Rezeki, S., & Amelia, S. (2025). Wordwall for math in Phase E. International Journal of Evaluation and Research in Education, 14(2), 1246–1252. https://doi.org/10.11591/ijere.v14i2.30051

Sakamurti, N. A., et al. (2024). Wordwall-based audiovisual media. PROGRES PENDIDIKAN, 5(3), 327–333. https://doi.org/10.29303/prospek.v5i3.585

Saputri, A. L., & Sukmawati, W. (2024). TGT with Wordwall on science literacy. Jurnal Penelitian Pendidikan IPA, 10(7), 3787–3798. https://doi.org/10.29303/jppipa.v10i7.7992

[39]Wulan, W., et al. (2024). Wordwall in English vocabulary. Scope: Journal of English Language Teaching, 8(2), 633. https://doi.org/10.30998/scope.v8i2.20457

Yudhawati, H. T., et al. (2024). Grammar mastery via Wordwall. FOREMOST JOURNAL, 5(2)