

Integrating Wordwall Gamification Into Literacy Learning: Teacher and Student Perspectives

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ABSTRACT

The background of this research stems from the need to present literacy learning that is more interactive, engaging, and oriented toward students' active involvement. This study aims to analyze the integration of gamification through the use of the Wordwall application in literacy learning, as viewed from the perspectives of teachers and students. The research method employs a descriptive qualitative approach, involving teachers and secondary school students as the primary participants. Data were collected through in-depth interviews, observations, and documentation of learning activities using Wordwall as a learning medium. The results of the study show that the use of Wordwall-based gamification is able to increase learning motivation, student participation, and understanding of literacy materials. Teachers consider Wordwall to be a flexible, user-friendly, and effective medium for creating a collaborative learning environment. Meanwhile, students reported that game elements such as points, challenges, and rankings increase interest and foster healthy competition in the classroom. However, several obstacles were also identified, such as limited internet connectivity and the varying levels of digital literacy among some teachers. This research confirms that the integration of Wordwall into literacy learning functions not only as a technological innovation but also as a pedagogical strategy that supports active, contextual, and student-centered learning. These findings are expected to serve as a foundation for developing gamification-based learning models that are relevant to the demands of the digital era in schools.

Keywords: gamification, wordwall, literacy learning, teacher perspective, student motivation

INTRODUCTION

The development of digital technology has brought fundamental changes to the modern educational paradigm. The integration of smart devices, increasingly widespread internet connectivity, and the presence of various online learning platforms have shifted learning practices from information transmission patterns to a more dynamic knowledge-construction process (Huang et al. 2023; Tan et al. 2021). In this context, literacy is no longer understood narrowly as the ability to read and write printed texts, but as a multidimensional competency that includes information literacy, digital literacy, media literacy, and critical thinking skills for filtering and interpreting massive flows of information. This transformation requires the education system to design learning experiences that are adaptive to technological developments as well as responsive to the characteristics of students of the digital generation (Ajani 2024; Bonfield et al. 2020; Koh et al. 2021).

Conceptually, modern literacy places students as active subjects who interact with texts in various forms (narrative, expository, multimodal, and digital hyperlinks). Abma et al. (2017) The reading process is no longer linear, but rather nonlinear and interactive. Therefore, literacy learning should ideally not only be oriented toward achieving evaluative scores, but also toward

the formation of reflective and analytical skills to evaluate the credibility of information sources (Lucaser et al. 2025; Sparks et al. 2016).

However, the reality on the ground shows that literacy learning practices in various educational units still tend to maintain conventional patterns. Lecture methods, repetitive question exercises, and written assignments with minimal interaction still dominate (Bender 2023; Doyle 2023). This situation has implications for low student involvement, limited space for exploring meaning, and a lack of intrinsic motivation in reading and understanding texts.

This condition indicates a gap between the demands of 21st-century literacy and the learning strategies implemented. If modern literacy requires higher-order thinking skills, then the pedagogical approaches used must also encourage active participation, collaboration, and meaningful use of technology (Chinedu et al. 2015; Kim et al. 2020). It is within this framework that gamification gains relevance.

Gamification is not merely about presenting games in learning, but rather about adopting game mechanics and elements such as point systems, levels, progressive challenges, leaderboards, and instant feedback to increase engagement and motivation. This approach has a strong theoretical foundation, one of which is Self-Determination Theory, which emphasizes the importance of fulfilling the needs for competence, autonomy, and social connectedness in building students' intrinsic motivation. When students feel capable of solving challenges, have control over the learning process, and connect with classmates through competitive or collaborative interactions, learning engagement tends to increase significantly (Huri et al. 2024; Zhou et al. 2023; Zitha et al. 2023).

In this context, gamification is emerging as an innovative approach that aligns with the characteristics of the digital generation. Gamification refers to the application of game elements such as points, challenges, levels, competition, and instant feedback into learning activities. One of the platforms widely used in the application of gamification is Wordwall. This application provides various types of interactive activities such as quizzes, word matching, anagrams, word searches, and time-based games that can be adjusted to learning goals. In reading instruction, for example, teachers can design text-comprehension quizzes that require students to identify key ideas, locate explicit and implicit information, and draw conclusions based on context.

The live feedback feature allows students to recognize mistakes in real time, resulting in a faster and more reflective self-correction process. In addition, score and time-limit elements create challenges that encourage concentration and accuracy. At the same time, teachers can take advantage of the results-sharing feature to analyze student error patterns as a basis for subsequent instructional improvements. Thus, Wordwall serves not only as an evaluation medium but also as a pedagogical diagnostic tool.

A number of recent studies have shown that the use of Wordwall has a positive impact on student motivation and engagement. Apriyani, Nisa, and Al Masjid (2025) found that the implementation of digital-based Wordwall media is able to increase the reading literacy of elementary school students through collaborative and interactive activities. Astuti (2025), in a qualitative study, revealed that the use of Wordwall in vocabulary learning increases student motivation because the learning process feels more engaging than conventional memorization methods.

Situmorang and Siregar (2025) also emphasized that, from the teacher's perspective,

Wordwall provides convenience in creating more dynamic learning and is able to significantly increase student participation.

In addition, a systematic literature review conducted by Ratih, Purwoko, and Gunansyah (2025) shows that Wordwall research trends are dominated by quantitative approaches that focus on improving learning outcomes. Meanwhile, Setiawan and Avrilianda (2025) emphasized the importance of qualitative research to explore the in-depth experiences of teachers and students in interpreting the use of Wordwall, especially in the context of digital literacy. This shows that there are research gaps that need to be addressed, particularly in understanding how Wordwall integration not only improves academic scores but also fosters more meaningful learning experiences.

Furthermore, the integration of Wordwall in literacy learning must be positioned as part of a systematic pedagogical transformation, not merely as a temporary variation of methods. Teachers need to design careful plans, align activities with learning outcomes, and ensure that game elements do not displace the substance of the material. Effective gamification remains oriented toward learning objectives, not solely toward entertainment. Therefore, teachers' pedagogical competence in designing digital activities is a key factor in successful implementation.

Thus, the use of Wordwall in literacy learning is not just a variation of teaching methods but part of a pedagogical transformation toward interactive, reflective, and technology-based learning. This integration allows for harmonization among cognitive (text comprehension), affective (motivation and engagement), and digital (ability to use learning technology) aspects. Therefore, research examining the use of Wordwall from a pedagogical perspective and the direct experiences of teachers and students is important to provide a more comprehensive understanding of its contribution to modern literacy learning.

This research is expected to provide both theoretical and practical benefits. Theoretically, this study contributes to the development of educational technology literature, particularly regarding the integration of gamification in literacy learning, as well as enriching the study of Self-Determination Theory in the context of digital-based pedagogy. Practically, the findings of this research can serve as a reference for teachers in designing more interactive and engaging literacy learning through Wordwall gamification.

For schools, this research provides input for the development of technology-based learning policies that support the implementation of the Independent Curriculum. For future researchers, this study offers a foundation for further exploration of gamification in various learning contexts, including quantitative and longitudinal studies to measure the long-term impact of Wordwall integration on students' literacy competencies.

METHODS

This study used a descriptive qualitative approach to explore the experiences of teachers and students in integrating Wordwall gamification into literacy learning. The research was conducted at SMP Negeri 8 Tanjung Selor, Bulungan, North Kalimantan. The participants consisted of three Indonesian language teachers and twenty-seven eighth-grade students who had used Wordwall in literacy activities. Participants were selected using a purposive sampling technique based on criteria relevant to the research objectives.

Data were collected through in-depth interviews, participatory observation, and

documentation. Interviews were conducted to examine the perspectives and experiences of teachers and students regarding the use of Wordwall. Observations were carried out to examine the learning process and classroom interactions. Documentation, including lesson plans, student assignments, and screenshots of activities, was used to support the data.

The researcher acted as the primary instrument, supported by interview guidelines, observation sheets, and field notes. Data were analyzed using the Miles and Huberman (2014) model, which involved data reduction, data display, and conclusion drawing and verification. To ensure data validity, the study applied the criteria proposed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Ethical considerations were maintained by obtaining informed consent, ensuring participant confidentiality, and presenting data objectively.

This method was expected to provide a comprehensive understanding of how teachers and students interpreted the use of Wordwall gamification in literacy learning, as well as the factors that supported and hindered its implementation.

RESULTS AND DISCUSSION

Overview of Research Implementation

This research was carried out at SMP Negeri 8 Tanjung Selor, Bulungan, North Kalimantan. Observation and interview activities were carried out for two months, from July to September 2025. During this period, the researcher participated in Wordwall-based literacy learning activities carried out by Indonesian language teachers involving twenty-seven grade VIII students.

In general, Wordwall-based literacy learning takes place in school classrooms and partly through students' personal devices. Teachers use Wordwall to create interactive activities such as matching games, quizzes, and sentence completion. Each learning session ends with a brief reflection on the student's level of understanding and their learning experience. From these results, the classroom atmosphere seemed active, competitive, and fun, in contrast to the conventional literacy learning pattern which tends to be monotonous.

Research Findings

Teacher's Perspective on the Use of Wordwall

Based on the results of the interviews, it was shown that teachers considered Wordwall to be an easy-to-use, flexible, and effective learning medium to attract students' attention. The teacher stated that the features in the Wordwall such as points, leaderboards, and working time have a positive competitive effect in the classroom. Teachers also admitted that the use of Wordwall helps them in evaluating students' literacy skills quickly and measurably.

One of the teachers, Mrs. "D", explained that "Wordwall makes students more focused because they want to win and get the highest score. Without realizing it, they read the text more often and practice understanding the content of the reading." This shows that gamification functions as a motivational trigger that strengthens student learning engagement.

Apart from these positive things, teachers also face several obstacles, such as limited internet networks, lack of digital skills, and limited time in preparing interactive materials. However, all teachers agree that Wordwall has a significant positive impact on class dynamics and student learning outcomes.

Students' Perspectives on Wordwall-Based Literacy Learning

From the student's side, the application of Wordwall is considered a form of learning that is "fun, challenging, and not boring." Most students state that they are more motivated to read and understand the text because of the game's elements such as points, levels, and virtual rewards. One student, "A.R.", revealed that he had an easier time remembering new vocabulary through matching games on Wordwall than with conventional exercises in textbooks. In addition, Wordwall also encourages collaboration and interaction between students. They often discuss answers, share strategies, or even challenge each other in multiplayer mode. This dynamic strengthens social values in literacy learning.

However, there are also some obstacles. Some students complain about slow internet access and unsupported devices, so they sometimes have to share or alternate devices with friends. In addition, some students feel that Wordwall activities are sometimes too competitive, making them nervous when the results are immediately displayed on the screen and do not match what is expected.

The Impact of the Use of Wordwall on the Process and Outcomes of Literacy Learning

Based on the results of observation and data analysis, the integration of Wordwall has a positive impact on three main aspects of literacy learning, namely learning motivation, active participation, and increased text comprehension. Here's the explanation:

Student Learning Motivation

The use of Wordwall presents a more varied and challenging learning atmosphere than conventional methods. Students show higher enthusiasm from the beginning of the activity, as seen by their readiness to follow instructions, focus when reading the text, and quick response when the activity starts. Gamification elements such as scoring systems, leaderboards, deadlines, and instant feedback create an internal drive to get the job done optimally.

The motivation that arises is not only extrinsic because of the existence of scores or awards, but also develops into intrinsic motivation. Students feel challenged to improve on previous results, retry wrong questions, and improve performance independently. This situation shows that a pleasant learning experience can reduce boredom in reading activities that were previously considered monotonous. In addition, a healthy competition atmosphere fosters confidence and courage to try, even for students who were previously passive in literacy learning.

Class Participation and Interaction

Wordwall encourages cross-rounded engagement because every student has equal access and opportunity to answer questions or complete challenges. There is no domination by a particular student as is often the case in conventional discussions. Interactive activities make all students simultaneously engaged, so that the class participation rate increases significantly.

Learning becomes more communicative and collaborative. After completing the activity, the teacher facilitates a discussion to discuss the answers, the reasons for choosing certain options, as well as strategies for understanding the text. This process encourages students to express opinions, respond to friends' arguments, and develop critical thinking skills. Interaction is no longer one-way, but rather dialogical and reflective.

In addition, the classroom dynamics become more lively. Expressions of excitement at obtaining high scores or successfully completing challenges create a positive learning climate. This atmosphere contributes to the formation of a supportive learning environment, where students feel safe to try and learn from mistakes. Thus, Wordwall not only increases individual

participation, but also strengthens social cohesion in the classroom.

Literacy Understanding and Self-Evaluation

The teacher mentioned that Wordwall helps students recognize misunderstandings directly because the feedback is automatically given after the game is over. Activities designed through Wordwall allow students to identify key ideas, find detailed information, understand the meaning of vocabulary in context, and draw conclusions based on the content of the text. Instant feedback helps students immediately identify where mistakes are and correct them directly, making the learning process more effective.

Interactive exercises also help strengthen information retention. Students do not just read and answer passively, but engage in a process of analysis and rapid decision-making. This trains concentration, precision, and the ability to understand the relationships between the two in the text. In the long run, this kind of training pattern has the potential to improve high-level literacy skills, such as inferential and evaluative skills.

Wordwall Gamification as an Active Learning Strategy

The findings of this study support the theory of educational gamification put forward by Deterding et al. (2020), that game elements are able to create a more meaningful and participatory learning experience. In the context of literacy learning, Wordwall not only functions as a digital medium, but also as a pedagogical strategy to stimulate students' emotional and cognitive engagement.

Teachers play an important role as designers of gamification activities that are aligned with learning objectives. Through Wordwall, teachers can package literacy exercises that were previously abstract into more concrete and fun. This is in line with the view of Prensky (2019) who emphasized that game-based learning is effective in increasing student engagement with text and language.

Teachers' and Students' Perceptions of the Effectiveness of Wordwall Media

Both teachers and students have a positive perception of the effectiveness of Wordwall. Teachers consider Wordwall to help them in compiling more adaptive and efficient literacy evaluations. Meanwhile, students feel that this media makes learning not monotonous. This condition reinforces the findings of Rahmawati & Ananda (2022) who show that the use of gamification media significantly increases student participation and learning outcomes.

However, the effectiveness of Wordwall still depends on teachers' digital competence, the availability of facilities, and the support of school policies. If these factors have not been met, the implementation of gamification can become suboptimal. Thus, continuous training is needed for teachers to be able to design Wordwall activities that are relevant to literacy achievements.

Wordwall's Contribution to Digital and Collaborative Literacy

Wordwall integration also plays an important role in building students' digital literacy. They interact not only with text, but also with digital interfaces that demand critical thinking and problem-solving skills. Collaborative activities such as group play strengthen the aspects of communication and cooperation, which are integral parts of 21st century literacy.

In the perspective of Vygotsky's (1978) social constructivism, Wordwall creates a learning environment based on social interaction where students build knowledge through shared experiences. Through challenges and games, students are actively involved in building meaning, not just receiving information from the teacher.

From the overall findings, it can be concluded that the integration of Wordwall in literacy learning has the following impacts: 1) Improve Motivation and Involve Students through Approach Gamification which is fun. 2) Make it easier for teachers to evaluate literacy skills quickly and interactively. 3) Encourage collaborative and reflective learning through automated challenges and feedback. 4) Facing technical obstacles such as limited internet access and digital readiness of some teachers and students.

Overall, the implementation of Wordwall has proven to be effective as a pedagogical innovation that enriches the literacy learning experience in the digital era, while supporting the implementation of the Independent Curriculum which emphasizes creativity, independence, and active participation of students.

CONCLUSION

The findings indicated that the application of gamification through Wordwall increased students' motivation and participation in literacy learning, as activities presented in the form of engaging and challenging games made students more active and interested. From the teachers' perspective, Wordwall was viewed as an innovative and user-friendly tool that supported interactive, student-centered learning. The integration of Wordwall emerged as a relevant pedagogical strategy for addressing literacy challenges in the digital era, fostering a meaningful learning experience through the synergy of cognitive, affective, and digital aspects.

Despite its effectiveness, challenges such as limited internet access and varying levels of teachers' digital readiness remained evident. Therefore, it is recommended that teachers continue developing their digital pedagogical skills and that schools strengthen technological infrastructure. Future research should employ quantitative or mixed-method approaches and consider longitudinal designs to examine the long-term impact of gamification on students' literacy skills, including reading comprehension, vocabulary development, and critical thinking.

BIBLIOGRAPHY

- Abma, T. A., et al. (2017). Social impact of participatory health research: Collaborative non-linear processes of knowledge mobilization. *Educational Action Research*, 25(4), 489–505.
- Ajani, O. A. (2024). Enhancing pre-service teacher education: Crafting a technology-responsive curriculum for modern classrooms and adaptive learners. *Research in Educational Policy and Management*, 6(2), 209–229.
- Astuti, N. D. (2025). *The implementation of Wordwall game through task-based learning method in teaching vocabulary (A case study at the first grade of MTs)*.
- Bender, T. (2023). *Discussion-based online teaching to enhance student learning: Theory, practice and assessment*. Taylor & Francis.
- Bonfield, C. A., et al. (2020). Transformation or evolution?: Education 4.0, teaching and learning in the digital age. *Higher Education Pedagogies*, 5(1), 223–246.
- Chinedu, C. C., Olabiyi, O. S., & Kamin, Y. B. (2015). Strategies for improving higher order thinking skills in teaching and learning of design and technology education. *Journal of Technical Education and Training*, 7(2).
- Doyle, T. (2023). *Helping students learn in a learner-centered environment: A guide to facilitating learning in higher education*. Taylor & Francis.
- Huang, X., Li, H., Huang, L., & Jiang, T. (2023). Research on the development and innovation

- of online education based on digital knowledge sharing community. *BMC Psychology*, 11(1), 295.
- Huri, A. S., Sahae, J. P., Prince, A. M., & Srivastava, R. (2024). Collaborative learning communities: Enhancing student engagement and academic achievement. *Educational Administration: Theory and Practice*, 30(5), 7031–7036.
- Kim, H. J., Yi, P., & Hong, J. I. (2020). Students' academic use of mobile technology and higher-order thinking skills: The role of active engagement. *Education Sciences*, 10(3), 47.
- Koh, J. H. L., & Kan, R. Y. P. (2021). Students' use of learning management systems and desired e-learning experiences: Are they ready for next generation digital learning environments? *Higher Education Research & Development*, 40(5), 995–1010.
- Lucaser, A. M. R., & Acedera, A. P. (2025). Information literacy skills and critical thinking strategies: Key factors of online source credibility evaluation skills. *International Journal of All Research Writings*, 6(7), 128–137.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*.
- Ratih, D., Purwoko, B., & Gunansyah, G. (2025). Trends in Wordwall integration for elementary IPAS learning: A systematic literature review. *Journal of Innovation and Research in Primary Education*.
- Setiawan, D., & Avrilianda, D. (2025). Literature review: Analysis on the use of Wordwall as an interactive media in elementary school mathematics learning (2020–2025). *Edunesia: Scientific Journal of Education*.
- Situmorang, J. J., & Siregar, D. Y. (2025). Exploring teacher's perspectives on the Wordwall platform for enhancing elementary students' English vocabulary. *Pendas: Scientific Journal of Basic Education*.
- Sparks, J. R., Katz, I. R., & Beile, P. M. (2016). Assessing digital information literacy in higher education: A review of existing frameworks and assessments with recommendations for next-generation assessment. *ETS Research Report Series*, 2016(2), 1–33.
- Tan, S. C., et al. (2021). Knowledge building: Aligning education with needs for knowledge creation in the digital age. *Educational Technology Research and Development*, 69(4), 2243–2266.
- Zhou, X., & Tsai, C.-W. (2023). The effects of socially shared regulation of learning on computational thinking, motivation, and engagement in collaborative learning by teaching. *Education and Information Technologies*, 28(7), 8135–8152.
- Zitha, I., Mokganya, G., & Sinthumule, O. (2023). Innovative strategies for fostering student engagement and collaborative learning among extended curriculum programme students. *Education Sciences*, 13(12), 1196.