



Gamifying Language Learning: Improving Primary Students' Vocabulary Acquisition Using Wordwall

Ni Made Mita Oktarini ^{1*}, I Gusti Ngurah Agung Wijaya Mahardika², Putu Santi Oktarina²

¹PAUD Central Bali, Denpasar, Indonesia

²Universitas Hindu Negeri I Gusti Bagus Sugriwa Denpasar, Denpasar, Indonesia

ARTICLE INFO

Received: 06/05/2025

Reviewed: 06/05/2025

Accepted: 19/06/2025

Published: 30/06/2025

Keywords:

Vocabulary mastery,
Young learners,
Wordwall, Classroom
Action Research,
Gamification

ABSTRACT

Vocabulary mastery is a fundamental component of English language proficiency and an essential foundation for young learners. However, in Indonesian EYL classrooms, vocabulary instruction often remains teacher-centered and monotonous, leading to limited engagement and low achievement. This study investigated how Wordwall, a gamified digital platform, could be integrated within a Classroom Action Research (CAR) design to support vocabulary learning. Conducted with 22 fifth-grade students in a primary school, the research followed two CAR cycles, each consisting of planning, action, observation, and reflection. Data were collected through vocabulary tests, classroom observations, and interviews. The findings indicated a steady improvement across cycles. The class mean score increased from 52.72 in the pre-cycle to 71.13 in Cycle I and reached 82.5 in Cycle II. By the end of Cycle II, all students met the Minimum Mastery Criteria (KKM), compared to only six students at baseline. Qualitative observations revealed that while initial use of Wordwall generated interest, uneven participation and low confidence persisted. Adjustments in Cycle II—particularly the incorporation of repetition and structured pair discussions—helped address these issues, resulting in more balanced participation and greater learner confidence. The study concludes that Wordwall can support vocabulary mastery when combined with pedagogical strategies such as recycling input and collaborative learning. These results provide practical guidance for EYL teachers in Indonesia, highlighting how gamified tools can be effectively adapted to classroom realities through iterative, reflective practice.

© 2025 The Author(s)

INTRODUCTION

Vocabulary is a fundamental component of language proficiency and plays a central role in supporting the four language skills—listening, speaking, reading, and writing. For English Young Learners (EYL), especially those in the primary school years, vocabulary knowledge provides the building blocks for comprehension and communication. Without sufficient vocabulary, learners encounter barriers to understanding texts, constructing sentences, or engaging meaningfully in interaction (Tamba et al., 2022). In the Indonesian EYL context, vocabulary is often considered one of the most persistent challenges, as many learners struggle with word spelling, pronunciation, and meaning. These

*Corresponding author(s):

Email: wijayamahardika@gmail.com (I Gusti Mahardika)

<https://doi.org/10.26740/nld.v5n1.p83-94>

³Universitas Hindu Negeri I Gusti Bagus Sugriwa Denpasar, Denpasar, Indonesia

difficulties, combined with limited exposure to English outside of the classroom, result in slow progress and limited confidence in language use (Asipi et al., 2023).

Learning vocabulary during childhood is particularly significant because these years are often described as a “golden age” of learning, when cognitive development supports logical thinking and memory retention. However, the traditional classroom practices commonly observed in Indonesian schools are largely teacher-centered and repetitive. Such methods, while familiar, may not adequately stimulate learners’ motivation or sustain their engagement in vocabulary learning (Putri et al., 2022). Consequently, students frequently lose interest, become passive, and perceive vocabulary learning as monotonous. This lack of motivation is a major obstacle to improving vocabulary mastery and achieving curriculum standards.

To address this challenge, scholars and practitioners have emphasized the integration of media and technology in English language teaching. Interactive and digital tools are recognized for their ability to engage learners actively, reduce boredom, and create positive learning environments (Ahmed, 2021; Ainagul et al., 2023). Recent research highlights that gamification—embedding game-like elements such as competition, rewards, and interactive tasks into learning activities—can motivate students and sustain their attention (Rajendran et al., 2025; Shabrina & Taufiq, 2023). By turning vocabulary practice into enjoyable activities, gamification may support deeper and longer-lasting vocabulary retention (Syawaluddin & Aeni, 2025; Sathyaseelan et al., 2025).

Among the various digital platforms available, Wordwall has gained attention as a versatile medium that enables teachers to design customized, game-based activities. Its features, such as matching tasks, quizzes, and word searches, align well with vocabulary instruction and allow learners to interact with language in a dynamic way (Umar et al., 2023). Empirical studies have shown that Wordwall can contribute positively to vocabulary development, enhancing both learner motivation and test performance (Safitri et al., 2022; Pradini & Adnyayanti, 2022; Tamba et al., 2022). Yet, while there is growing evidence of its effectiveness, most studies employ experimental or survey designs, and few have systematically applied Classroom Action Research (CAR) to explore not only outcomes but also the processes of implementation and refinement in real classroom contexts.

This gap highlights the need to investigate how Wordwall can be integrated optimally into classroom practice for young learners in Indonesia. Classroom Action Research, with its cyclical process of planning, acting, observing, and reflecting, provides a useful framework to evaluate how instructional media like Wordwall can be adapted across cycles to meet learner needs. Such an approach not only measures outcomes but also captures qualitative insights on learner engagement and teacher strategies.

Accordingly, this study aimed to explore how Wordwall could be implemented to improve vocabulary mastery among Indonesian primary school learners. Specifically, the study pursued two objectives: (1) to examine the extent to which Wordwall contributes to improvements in students’ vocabulary performance across two CAR cycles, and (2) to identify the most effective instructional strategies for integrating Wordwall in vocabulary lessons.

Based on these objectives, the study addressed the following research questions: 1) To what extent does the use of Wordwall coincide with improvements in primary students’ vocabulary mastery across CAR cycles? 2) What instructional strategies emerged as most effective for implementing Wordwall to support vocabulary learning among young learners?

LITERATURE REVIEW

Vocabulary Learning and Young Learners

Vocabulary constitutes the foundation of language proficiency, enabling learners to communicate, comprehend, and express ideas effectively. Scholars generally agree that vocabulary mastery extends beyond memorizing words to include the ability to use them accurately and appropriately in different contexts (Kadaruddin et al., 2020; Tamba et al., 2022). In English as a Foreign Language (EFL) settings such as Indonesia, vocabulary development is a critical yet challenging aspect of language

learning. Young learners, typically aged between six and twelve, are in a developmental stage often described as a “golden age” of language acquisition, when cognitive and memory capacities allow for effective vocabulary retention (Asyiah, 2017; Asipi et al., 2023).

Despite these advantages, research has shown that young learners often face difficulties in acquiring new vocabulary. Spelling, pronunciation, and meaning retention pose common challenges, while monotonous and teacher-centered methods reduce motivation and engagement (Putri et al., 2022; Sukrina, 2021). When students experience boredom or fail to see relevance in vocabulary tasks, their participation declines, further inhibiting progress. As such, vocabulary instruction requires approaches that stimulate curiosity, sustain attention, and promote active engagement to help learners build robust lexical repertoires.

Gamification and Digital Media in Language Learning

The integration of technology and multimedia has been widely recognized as an effective means to enhance language learning motivation. Digital media can support the acquisition of vocabulary by providing multimodal input and interactive opportunities for practice (Ahmed, 2021; Ainagul et al., 2023; Shabrina & Taufiq, 2023). Recent studies highlight the potential of gamification—embedding elements such as competition, points, or interactive tasks into learning contexts—to encourage sustained engagement and improve outcomes (Rajendran et al., 2025; Syawaluddin & Aeni, 2025; Sathyaseelan et al., 2025).

Gamification supports EFL learners in overcoming the monotony of traditional practices by transforming vocabulary learning into interactive and enjoyable activities. For young learners in particular, gamified tasks can create a playful learning environment where anxiety is reduced and motivation is increased (Safitri et al., 2022). By integrating such strategies, teachers can foster both cognitive and affective dimensions of vocabulary development.

Wordwall as a Gamified Instructional Tool

Wordwall is an online platform that allows educators to create interactive, game-based activities, including matching tasks, quizzes, word searches, and crosswords. It offers flexibility for teachers to design vocabulary tasks tailored to learners’ proficiency levels and curricular goals (Az Zahrah & Anwar, 2023; Hasibullah, 2023). Its accessibility via mobile devices and web browsers makes it a practical choice across diverse educational contexts.

Scholars have emphasized the pedagogical benefits of Wordwall, particularly its ability to enhance student motivation and engagement. By encouraging learners to participate actively, Wordwall helps prevent boredom and creates opportunities for repeated exposure to vocabulary in meaningful contexts (Umar et al., 2023). The platform also provides immediate feedback, an important element in fostering learner autonomy and vocabulary retention (Safitri et al., 2022).

Empirical Studies on Wordwall in Vocabulary Instruction

Several empirical studies provide evidence of Wordwall’s potential in supporting vocabulary mastery. For example, Kadaruddin et al. (2020) used a Classroom Action Research design to demonstrate incremental improvements in students’ vocabulary test scores and positive shifts in engagement. Similarly, Pradini and Adnyayanti (2022) found that Wordwall significantly improved vocabulary mastery among young learners, as measured by pre- and post-test comparisons. Tamba et al. (2022) also showed that Wordwall helped students reach mastery criteria, while survey results indicated strong learner enjoyment.

In addition, qualitative studies highlight how Wordwall fosters a positive learning environment. Students report increased enthusiasm for learning and greater willingness to participate in classroom tasks when Wordwall is used (Rahman & Zaid, 2023; Wila & Kesi, 2023). These findings suggest that Wordwall is not only an effective tool for vocabulary development but also an important resource for sustaining motivation in EYL contexts.

Nevertheless, most prior studies employed experimental or survey-based methods, which, while useful, provide limited insights into iterative instructional refinement. Few have applied Classroom Action Research (CAR) to systematically evaluate how Wordwall can be optimized across cycles of planning, implementation, and reflection. This study addresses this gap by employing CAR to investigate not only improvements in learners' vocabulary outcomes but also the instructional strategies that best support successful implementation of Wordwall in Indonesian primary classrooms.

METHODS

Research Design

This study employed a Classroom Action Research (CAR) design, chosen for its capacity to address practical classroom problems while simultaneously generating insights into instructional strategies. According to the classic framework proposed by Kemmis and McTaggart (1988), CAR involves a cyclical process of planning, acting, observing, and reflecting. Each cycle allows researchers and practitioners to collaboratively evaluate the effectiveness of an intervention, refine strategies, and iteratively work toward improved learning outcomes. In this study, CAR was implemented across two cycles to investigate the role of Wordwall as a gamified instructional tool for vocabulary mastery among young learners.

Participants and Setting

The participants were 22 fifth-grade students (11 females and 11 male students) from a primary school in Indonesia. The class was purposively selected because preliminary observations and teacher input revealed that students experienced notable difficulties with vocabulary, particularly in spelling and understanding word meanings. These challenges provided a relevant context for testing whether gamified media could enhance engagement and support vocabulary development. To preserve anonymity and meet ethical considerations, the school's name is not disclosed.

The students' language exposure was largely confined to formal English lessons at school, with limited opportunities to practice English outside of the classroom. Their baseline performance, measured through a pre-test, indicated that most learners had not yet met the Minimum Mastery Criteria (KKM), which was set at a score of 75. This benchmark served as a criterion for evaluating the effectiveness of the intervention.

Ethical Considerations

Prior to the study, approval was obtained from the school administration, and informed consent was sought from the classroom teacher, students, and their parents. Participation was voluntary, and data were anonymized to ensure confidentiality. Ethical considerations were guided by standard educational research practices emphasizing respect, transparency, and the protection of participants' identities.

Research Procedure

The CAR process was carried out in two cycles, with each cycle consisting of four stages: planning, action, observation, and reflection.

Planning

In the planning stage, the researcher collaborated with the English teacher to design learning scenarios that integrated Wordwall into vocabulary instruction. Several preparatory steps were undertaken:

1. Identifying students' vocabulary challenges based on pre-test results and teacher interviews.
2. Aligning instructional objectives with the national curriculum requirements for fifth-grade English.

3. Developing lesson plans incorporating Wordwall features (matching, quizzes, and crosswords).
4. Preparing teaching materials, equipment (laptop, projector, internet access), and assessment tools.
5. Designing observation checklists to record student participation, motivation, and interaction.

Action

The action stage referred to the implementation of Wordwall-based activities in the classroom. Instruction was organized into three phases: pre-activity, whilst-activity, and post-activity.

1. Pre-activity: The teacher initiated lessons with Wordwall-based brainstorming activities designed to activate students' prior knowledge and focus their attention on the target vocabulary.
2. Whilst-activity: Students engaged with Wordwall games tailored to specific vocabulary sets (e.g., body parts). Activities included matching exercises, quizzes, and pair-based challenges. Students were encouraged to discuss their answers with peers and construct simple sentences using the new vocabulary.
3. Post-activity: At the conclusion of each lesson, students completed a Wordwall quiz to consolidate learning. This phase provided immediate feedback for both learners and the teacher.

Observation

Observation was conducted collaboratively by the researcher and the classroom teacher. Both quantitative and qualitative data were collected. Observation sheets captured student engagement levels, attention spans, collaboration during group work, and teacher performance. In addition, field notes were taken to record classroom dynamics and unexpected occurrences. The integration of multiple data sources allowed for triangulation and a more comprehensive understanding of the intervention's impact.

Reflection

Reflection sessions were held at the end of each cycle, involving the researcher and the teacher. These sessions focused on analyzing test results, reviewing observational data, and discussing classroom experiences. The reflection informed modifications for subsequent cycles, ensuring that instructional strategies were responsive to student needs. For instance, limited participation in Cycle I prompted the addition of repetition and structured pair discussions in Cycle II.

Instruments

Three instruments were employed in this study:

1. Vocabulary Tests: Pre-tests and post-tests were used to measure students' vocabulary mastery. Each test comprised 20 multiple-choice items covering spelling, meaning, and usage of target vocabulary.
2. Observation Sheets: Structured forms were used to document student participation, attentiveness, and collaboration during lessons.
3. Interviews: Informal interviews with students and the teacher were conducted at the end of each cycle to gather perceptions regarding the use of Wordwall and its perceived effectiveness.

Data Collection and Analysis

Data collection was carried out in three stages:

1. Pre-test (before Cycle I) to establish baseline vocabulary mastery.
2. Post-test I (end of Cycle I) to measure progress after the first cycle.

3. Post-test II (end of Cycle II) to evaluate improvements following the refinement of instructional strategies.

Quantitative data from the tests were analyzed using descriptive statistics (mean scores, highest and lowest scores, and the number of students meeting the KKM). These statistics enabled comparisons between pre-cycle, Cycle I, and Cycle II results. Qualitative data from observation sheets and interviews were analyzed thematically. Codes were generated to capture patterns in student engagement, motivation, and classroom interaction. For example, themes such as “increased confidence,” “peer support,” and “enjoyment of repetition” emerged during Cycle II. Integrating quantitative and qualitative findings allowed for a richer interpretation of the intervention’s effectiveness.

Validity and Reliability

To ensure validity, methodological triangulation was applied by combining tests, observations, and interviews. This approach reduced the risk of bias and provided a more balanced account of student progress. Reliability was strengthened through collaborative observation with the classroom teacher, enabling cross-checking of interpretations. The cyclical nature of CAR also supported internal validity by continuously refining the intervention based on feedback and results.

Limitations of the Method

Although CAR provided practical insights into classroom processes, it also presented limitations. The absence of a control group restricted the ability to make strong causal claims. The small sample size and single-class context further limited the generalizability of findings. Nonetheless, the methodological choice was appropriate for the study’s aim: to examine instructional refinements and learner responses in a real classroom setting.

FINDINGS

This section reports results across three stages of the Classroom Action Research (CAR): (a) the pre-cycle baseline, (b) Cycle I outcomes and challenges, and (c) Cycle II adjustments and outcomes. At each stage, quantitative evidence (tables of test results) is presented alongside qualitative insights from classroom observations and brief interviews, allowing a fuller account of how participation, confidence, and scores evolved across cycles.

Pre-cycle baseline

A diagnostic test (20 multiple-choice items on spelling, recognition, and meaning) was administered prior to the intervention. The baseline indicated generally low vocabulary mastery across the class, with only a minority meeting the mastery benchmark (KKM = 75). Table 1 summarizes the pre-cycle distribution.

Table 1. *Pre-cycle scores (baseline)*

Aspect	Pre-cycle
Mean score	52.72
Highest score	90
Lowest score	15
Students $\geq$ KKM (75)	6
Students $<$ KKM	16

These figures show that most learners began below the KKM (minimum requirement) and that attainment was uneven (mean = 52.72; range = 15-90). Observation notes further documented low confidence and fluctuating attention during vocabulary tasks; students often hesitated, asked peers for confirmation, or disengaged when recalling meanings or spelling (see the study’s observation protocol

and procedure). The combined picture, scores and in-class behaviors, suggested the need for a more interactive approach to stimulate participation of the students and support retention before moving into Cycle I.

Cycle I: initial implementation with emerging challenges

Cycle I introduced Wordwall activities (brainstorming, matching, quizzes) embedded within the regular lesson flow (pre/whilst/post activities). The post-test at the end of Cycle I showed that scores improved across cycles relative to baseline, though the improvement was not yet uniform across learners.

Table 2. *Comparison of pre-cycle and Cycle I post-test*

Aspect	Pre-cycle	Cycle I post-test
Mean score	52.72	71.13
Highest score	90	95
Lowest score	15	50
Students $\geq$ KKM (75)	6	13
Students $<$ KKM	16	9

Relative to baseline, the mean rose by ~ 18.4 points (52.72 to 71.13), the lowest score increased (15 to 50), and the number of students at or above KKM more than doubled (6 to 13). These descriptive results indicate that the class, on average, moved closer to the mastery benchmark after the initial implementation.

However, observation and interview data highlighted two persistent issues that help explain why nine students still remained below KKM at this stage. First, uneven participation: a subset of students engaged readily with Wordwall tasks, while others contributed minimally, tending to defer to peers during whole-class turns. Second, lack of confidence: several learners frequently sought confirmation before responding, indicating uncertainty in their recall and spelling. These qualitative patterns echoed the pre-cycle classroom dynamics and suggested that novelty alone (introducing a new tool) did not fully resolve hesitancy or passivity for all learners (cf. observation/reflection procedures guiding data capture).

During the Cycle-I reflection, the teacher–researcher team therefore prioritized adjustments aimed at (a) structured repetition to strengthen memory traces for target words and (b) pair-based collaboration to distribute talk, reduce performance anxiety, and promote supported output before whole-class response. These decisions were formalized for Cycle II through the standard CAR “reflect-and-revise” step.

Cycle II: targeted adjustments (repetition + pair discussion) and outcomes

Cycle II operationalized two refinements: (1) more repetition across Wordwall items to recycle previously introduced vocabulary, and (2) pair discussions that required partners to construct simple sentences with target words before contributing to class-level activities. The post-test at the end of Cycle II again showed that scores improved across cycles.

Table 3. *Comparison of pre-cycle, Cycle I, and Cycle II post-tests*

Aspect	Pre-cycle	Cycle I post-test	Cycle II post-test
Mean score	52.72	71.13	82.5
Highest score	90	95	100
Lowest score	15	50	75
Students $\geq$ KKM (75)	6	13	22
Students $<$ KKM	16	9	0

Three descriptive patterns are notable. First, the class mean continued its upward trajectory (52.72 to 71.13 to 82.5). Second, the lower bound rose to the mastery threshold (15 to 50 to 75), indicating that the least-advantaged learners reached the target by Cycle II. Third, the distribution converged at or above KKM (6 to 13 to 22 students), meaning all learners achieved mastery by the end of Cycle II (KKM = 75). Together, these patterns suggest that the Cycle-II adjustments coincided with a more evenly distributed improvement across the class, not only a higher average.

Classroom evidence helps explain how these changes took shape. Observation notes from Cycle II documented more balanced participation: pairs prepared answers together before volunteering, which reduced the pressure of responding alone at the board and encouraged contributions from previously reticent students. Learners who had been passive in Cycle I were now observed negotiating meanings, checking spellings collaboratively, and proposing sample sentences during the pair phase before sharing out. Interview responses also pointed to repetition as beneficial—students reported that “seeing/doing the words again” made recall easier and errors fewer by the time they took the end-cycle quiz. These qualitative shifts align with the iterative logic of CAR and the study’s reflection notes on selecting repetition and pair work as focal adjustments.

Importantly, in keeping with reviewer guidance and the study’s design, these results are reported descriptively: scores improved across cycles, participation became more even, and students reported greater comfort with vocabulary tasks. Given the absence of a control group, the data do not justify causal claims that the digital tool alone produced the gains. Rather, the evidence indicates that the combination of gamified activities with structured repetition and peer support coincided with higher scores and more confident engagement by Cycle II (see also the study’s reflection protocol emphasizing data-informed adjustments each cycle).

Integrated interpretation across cycles

Taken together, the three tables and classroom evidence trace a coherent trajectory from a fragmented baseline to a more consolidated performance profile:

1. **Baseline (Table 1):** Low mean and broad spread; only 6 of 22 at or above KKM; confidence and attention uneven.
2. **Cycle I (Table 2):** Scores improved across cycles (mean +18.41), lowest score rose markedly (to 50), and 13 students reached KKM; yet confidence and participation remained uneven, indicating that novelty was insufficient for sustained, class-wide engagement.
3. **Cycle II (Table 3):** After introducing repetition and pair discussion, the score distribution shifted upward and narrowed (mean 82.5; min 75; 22/22 $\geq$ KKM), with observations noting more balanced turn-taking and reduced hesitancy.

From an instructional standpoint, the CAR cycles suggest that how Wordwall is embedded matters. In Cycle I, the tool introduced interactivity and some efficiency (immediate feedback, engaging tasks), but the process supports added in Cycle II—planned recycling of items and partner scaffolding before public response—appeared to align assessment demands (spelling/meaning) with learners’ affective needs (confidence, willingness to participate). This alignment is visible in the test distributions and in classroom talk: more students attempted items, peers co-constructed answers, and fewer learners remained silent during whole-class phases (as noted in the observation framework and post-cycle reflections).

Finally, it bears repeating that these are action-research results in a single class. They provide actionable insight into iterative improvement—what worked *here* and *how*—but they do not estimate comparative effects against alternative methods. The descriptive trends and aligned process evidence nonetheless contribute practical guidance for teachers seeking to integrate Wordwall into EYL vocabulary lessons: pair a gamified platform with planned repetition and pair-first production to help distribute talk, reduce anxiety, and support more even gains across a whole class.

DISCUSSION

The purpose of this study was to examine how Wordwall, as a gamified learning tool, could support the vocabulary development of young learners within a Classroom Action Research (CAR) framework. By tracking changes across a pre-cycle, Cycle I, and Cycle II, the study demonstrated that vocabulary scores improved over time and that students' confidence and participation became more evenly distributed after targeted instructional adjustments. This section synthesizes these findings with prior research, discusses the best implementation of Wordwall for vocabulary instruction, and considers pedagogical implications for English teachers of young learners in Indonesia.

Vocabulary Learning Challenges in Indonesian EYL Contexts

The pre-cycle findings confirmed what previous studies have reported about vocabulary learning in EFL contexts: young learners often struggle with spelling, meaning, and retention of words, especially when instruction relies heavily on traditional, teacher-centered methods (Asyiah, 2017; Putri et al., 2022). In the baseline stage of this study, students showed low levels of vocabulary mastery, with only a small proportion meeting the Minimum Mastery Criteria (KKM). Observational data further indicated that learners lacked confidence, were hesitant to respond independently, and often disengaged from vocabulary tasks. These outcomes highlight systemic challenges—limited exposure to English outside school, reliance on monotonous strategies in class, and low intrinsic motivation—factors also noted by Asipi et al. (2023) in their analysis of EYL learning environments.

Cycle I: Initial Gains and Persisting Barriers

The introduction of Wordwall in Cycle I coincided with notable improvements in mean vocabulary scores and a reduction in the number of students below KKM. This aligns with studies by Safitri et al. (2022) and Pradini & Adnyayanti (2022), who found that Wordwall increased student engagement and raised performance outcomes. Wordwall's interactive design likely contributed to these improvements by making vocabulary learning more enjoyable and less monotonous.

However, the Cycle I results also demonstrated that novelty alone was insufficient. Observations revealed uneven participation and persistent hesitancy among less confident learners. These findings resonate with Jameel et al. (2023), who argue that while gamified platforms enhance motivation, some students may still need additional scaffolds—such as structured collaboration or guided practice—to fully benefit. Thus, while Wordwall provided an engaging framework, the manner in which it was implemented required refinement to ensure equitable outcomes across all learners.

Cycle II: Refinements through Repetition and Pair Discussions

The key adjustments in Cycle II were the incorporation of repetition and pair discussions. These strategies produced both quantitative and qualitative improvements: the mean score rose above 82, all students reached or exceeded the mastery threshold, and classroom observations recorded more balanced participation and higher confidence levels.

The role of repetition in vocabulary retention has been widely documented. Wila and Kesi (2023) emphasize that repeated exposure strengthens recall and helps learners consolidate vocabulary into long-term memory. Similarly, Altalhab (2021) reported that both spoken and written repetition support sustained retention, preventing the rapid decline of newly learned words. In this study, repetition of Wordwall items appeared to reduce spelling errors and increase fluency in recall, supporting the broader literature on recycling as an essential part of vocabulary pedagogy.

Equally significant was the integration of pair discussions, which allowed students to co-construct knowledge before responding in front of the class. This reduced performance anxiety, increased participation from previously passive learners, and promoted collaborative problem-solving. Jameel et al. (2023) showed that group discussions motivate learners to retain new vocabulary by situating learning in social interaction. Johanna et al. (2023) further argue that such collaborative methods train learners in problem-solving and foster a more active classroom culture. The findings

here are consistent with these studies: when students were given opportunities to analyze words with peers and develop simple sentences together, they displayed greater confidence and engagement.

The Best Implementation of Wordwall

Based on the iterative results of this CAR project, the best implementation of Wordwall for EYL vocabulary learning involved combining its gamified features with repetition and collaborative learning. The process can be outlined as follows:

1. The teacher begins with a Wordwall activity displayed on the screen to stimulate brainstorming and activate prior knowledge.
2. Visual support, such as pictures of body parts, is introduced to scaffold understanding of target words.
3. Students are organized into pairs, with clear guidance on collaboration.
4. Each pair answers Wordwall questions together, with groups rotating to the front to share responses.
5. Pairs then create simple sentences with the new words, reinforcing contextual use.
6. Sentences are shared on the board for class-wide review and refinement.
7. A final Wordwall quiz consolidates the lesson, followed by a teacher-led recap.

This sequence ensured that Wordwall was not used in isolation but embedded within a broader instructional design that addressed motivational, cognitive, and affective needs. The cyclical CAR model underscored the importance of continuous refinement: initial enthusiasm generated by gamification needed to be supported by pedagogical scaffolds—namely, repetition and collaboration—to achieve consistent and meaningful outcomes.

Pedagogical Implications

The findings of this study carry several implications for EYL teachers in Indonesia and similar EFL contexts:

1. **Gamification as a Pedagogical Strategy:** Wordwall and similar platforms can provide valuable tools to overcome boredom in vocabulary learning. However, their effectiveness depends on integration with pedagogical strategies rather than reliance on novelty alone.
2. **Repetition as a Core Principle:** Recycling vocabulary through repeated activities is essential for retention. Teachers should design lessons that revisit key items in multiple contexts, ensuring both short-term fluency and long-term mastery.
3. **Collaboration for Confidence-Building:** Pair or group discussions can mitigate learner anxiety, encourage participation from quieter students, and enhance retention through peer-supported practice.
4. **Teacher's Role as Facilitator:** While Wordwall automates certain tasks (scoring, interactive feedback), the teacher remains central in structuring activities, moderating discussions, and guiding reflection.
5. **Adaptability to Context:** The CAR design highlights that interventions should be adapted iteratively. Teachers should observe, reflect, and refine the use of digital tools in response to learners' needs rather than adopting fixed routines.

Limitations and Directions for Future Research

Although the study demonstrates promising outcomes, several limitations must be acknowledged. The absence of a control group restricts causal claims about the sole effect of Wordwall. The small sample size and single-class context limit generalizability beyond similar EYL classrooms. Furthermore, the study focused on short-term gains in vocabulary scores; long-term retention and transfer of vocabulary into spontaneous communication were not measured. Future research could address these gaps by employing experimental or quasi-experimental designs with

larger and more diverse samples, tracking long-term retention, and examining how gamified tools like Wordwall influence not only vocabulary acquisition but also broader communicative competence. Comparative studies across digital platforms may also provide insights into which features of gamification are most effective for different learner profiles.

This discussion underscores that the most effective implementation of Wordwall was not merely the introduction of gamified tasks but their integration with repetition and pair-based collaboration. Through the CAR framework, these refinements transformed uneven participation and hesitant engagement into consistent class-wide improvement in vocabulary mastery. The findings align with existing literature on repetition and collaborative learning, while adding practical insights for Indonesian EYL contexts: gamification must be supported by sound pedagogy to yield sustainable benefits.

CONCLUSION

This Classroom Action Research investigated how Wordwall, as a gamified learning platform, could support the vocabulary mastery of Indonesian young learners. Implemented over two cycles, the study traced student performance from a low baseline in the pre-cycle, through moderate improvements in Cycle I, to consistent mastery across the class in Cycle II. Quantitative results showed that the class mean increased steadily from 52.72 (pre-cycle) to 71.13 (Cycle I) and finally to 82.5 (Cycle II), with all 22 students meeting or exceeding the Minimum Mastery Criteria (KKM) by the end of the intervention. These outcomes were reinforced by qualitative observations documenting greater participation, improved confidence, and stronger collaboration among students.

The iterative design highlighted the importance of refining instructional strategies. While Cycle I demonstrated that Wordwall could enhance motivation and performance, it also revealed persisting barriers of uneven participation and low confidence. The Cycle II adjustments—structured repetition and pair discussions—proved crucial in addressing these issues. Repetition enabled students to consolidate vocabulary knowledge and reduce errors, while peer collaboration created a supportive environment where previously hesitant learners became more engaged. Together, these strategies contributed to more balanced learning outcomes across the class. The study therefore concludes that the most effective implementation of Wordwall for EYL vocabulary instruction is not the tool alone, but its integration into a carefully designed instructional sequence. Gamification can create enjoyable and interactive experiences, but sustainable improvement arises when digital tools are combined with pedagogical principles such as recycling of input and collaborative learning. In this sense, Wordwall functioned best as a complement to, rather than a replacement for, thoughtful teacher facilitation and structured classroom activities.

Pedagogically, the findings suggest that teachers in Indonesian EYL contexts should adopt gamified platforms like Wordwall to overcome boredom and motivate learners, while embedding these tools in lesson plans that emphasize repeated exposure and peer interaction. For policy and practice, the study underscores the value of professional development that equips teachers to use digital media not merely as add-ons but as integrated components of effective pedagogy. At the same time, the study's scope and design introduce limitations. The absence of a control group prevents definitive causal claims, and the small sample limits generalizability. Future research should examine long-term retention, communicative application of vocabulary, and comparative effects across different gamified platforms. Nevertheless, the results contribute practical insights into how gamification can be adapted to the realities of Indonesian classrooms, offering a model for iterative, reflective practice in vocabulary teaching.

REFERENCES

- Asipi, L. S., Trisanti, O. L., & Damayanti, Y. T. (2023). *Methods of Teaching Vocabulary in English Young Learners ' (EYL) Classroom*. 05(04), 15078–15088.
- Asyiah, D. N. (2017). the Vocabulary Teaching and Vocabulary Learning: Perception, Strategies, and

- Influences on Students' Vocabulary Mastery. *Jurnal Bahasa Lingua Scientia*, 9(2), 293–318. <https://doi.org/10.21274/lis.2017.9.2.133-158>
- Az Zahrah, R. amalia, & Anwar, K. (2023). The Effect Using Wordwall Game Applications To Improve Student's Vocabulary In Chumchon Ban Phanokkhao School. *DIDAKTIKA : Jurnal Pemikiran Pendidikan*, 29(1), 18. <https://doi.org/10.30587/didaktika.v29i1.5246>
- Hasibullah, M. U. (2023). Learning Innovation Using Wordwall Website Application. *INCARE, International Journal of Educational Resources*, 4(3), 238-246.
- Kadaruddin, K., Kaharuddin, A., Arafah, B., & Ahmad, D. (2020). Word Wall Media: An Effective Teaching Technique to Enrich Students' Vocabulary in Secondary Level of Education. *International Journal of Advanced Science and Technology*, 29(5), 13228–13242. <https://www.researchgate.net/publication/342701269>
- Jameel, M., Zahid, F., & Haq, S. U. (2023). Group Discussions Practices in Improving English Vocabulary Learning among ESL Learners. *Global Language Review*, VIII, 236-246.
- Johanna, A., Avinash, B., & Bevoor, B. (2023). Small group discussion method to increase learning activity: Its implementation in education. *International Journal of Educational Narratives*, 1(1), 18-22.
- Pradini, P. C., & Adnyayanti, N. L. P. E. (2022). Teaching English Vocabulary to Young Learners with Wordwall Application: An Experimental Study. *Journal of Educational Study*, 2(2), 187–196. <https://doi.org/10.36663/joes.v2i2.351>
- Putri, M. W., Adi, P., Juniarta, K., Gede, L., & Wahyuni, E. (2022). *The Implementation of Songs in Teaching English for Young Learners in Online Learning Context*. 3(1), 49–58. <https://doi.org/10.36663/tatefl.v3i1.251>
- Rahman, M. S., & Zaid, M. (2023). Pengaruh Media Wordwall Dan Motivasi Dalam Kurikulum Merdeka Belajar Untuk Meningkatkan Kompetensi Strategis Siswa. *Riemann: Research of Mathematics and Mathematics Education*, 5(2), 13-21.
- Wila, R. R. R., & Kesi, A. K. (2023). The Use of Repetition Method to Improve Students' Vocabulary. *International Linguistics and TESOL Journal*, 2(2), 44-49.
- Safitri, D., Awalia, S., Sekaringtyas, T., Nuraini, S., Lestari, I., Suntari, Y., Marini, A., Iskandar, R., & Sudrajat, A. (2022). Improvement of Student Learning Motivation through Word-Wall-based Digital Game Media. *International Journal of Interactive Mobile Technologies*, 16(6), 188–205. <https://doi.org/10.3991/ijim.v16i06.25729>
- Shabrina, F. B., & Taufiq, W. (2023). The Effect of Teaching English Vocabulary on Junior High School Students by Using Wordwall.net. 5(2).
- Sultan Altalhab. (2021) Short- and Long-term Effects of Repetition Strategies on Vocabulary Retention. *Advances in Language and Literary Studies*. 9(2).
- Tamba, N., Almunda Ginting, F. Y., & Prima Sari, A. S. (2022). Improving Students ' Vocabulary Mastery Through the Application of Word Wall Strategy to the Tenth Grade Students of SMA. *Kairos ELT Journal*, 6(1), 47–57.
- Umar, U., Rahman, R. A., Mandarsari, P., Mawarwati, M., & Amir, S. (2023). Using Word Wall Website As A Strategy To Improve Students' Vocabulary Mastery. *Journal on Education*, 5(3), 9654-9661.
- Vina Sukrina. (2021). Improving Students' Vocabulary Mastery by Using Realia Vina. *Angewandte Chemie International Edition*, 6(11), 951–952., 2013–2015.