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Wordwall Media and Fifth Graders' Vocabulary Mastery at SDN 19 Cakranegara

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Abstrak

Penelitian ini mengkaji apakah media Wordwall dapat meningkatkan penguasaan kosakata bahasa Inggris pada siswa kelas lima di SDN 19 Cakranegara selama tahun ajaran 2024/2025. Studi ini menggunakan desain kuantitatif pra-eksperimental dengan satu kelompok yang diberikan tes awal (pretest) dan tes akhir (posttest). Kelas V-A, yang terdiri dari 20 siswa, dipilih melalui undian dari tiga kelas lima dengan total populasi sebanyak 60 siswa. Sebuah tes kosakata berbentuk pilihan ganda yang terdiri dari 25 butir soal diberikan sebelum dan sesudah pembelajaran yang didukung oleh Wordwall. Data dianalisis menggunakan statistik deskriptif dan uji-t sampel berpasangan (paired-samples t-test) melalui perangkat lunak SPSS versi 25. Rata-rata skor hanya meningkat dari 58,20 menjadi 58,50, dengan standar deviasi masing-masing sebesar 14,94 dan 18,06. Perbandingan berpasangan menunjukkan tidak adanya perbedaan yang signifikan secara statistik, $t(19) = -0{,}213$, $p = 0{,}834$. Peningkatan rata-rata skor adalah 0,30 poin, dengan interval kepercayaan 95% berkisar antara $-2{,}65$ hingga 3,25 poin. Temuan ini tidak memberikan bukti adanya peningkatan kinerja tes dalam penerapan yang diuji. Hasil ini menyarankan agar penggunaan Wordwall dilakukan dengan hati-hati, serta disertai dengan pengajaran kosakata secara eksplisit, pengenalan yang terpandu, dan latihan yang berulang. Ukuran sampel yang kecil dan ketiadaan kelompok pembanding membatasi penarikan kesimpulan mengenai hubungan sebab-akibat maupun generalisasi yang lebih luas.

Kata kunci: Wordwall; penguasaan kosakata; pendidikan dasar; pembelajaran digital; studi pra-eksperimental

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Abstract

This study examined whether Wordwall media improved English vocabulary mastery among fifth-grade students at SDN 19 Cakranegara during the 2024/2025 academic year. A quantitative pre-experimental design used one group with a pretest and posttest. Class V-A, comprising 20 students, was selected by lottery from three fifth-grade classes with a total population of 60 students. A 25-item multiple-choice vocabulary test was administered before and after Wordwall-supported instruction. Data were analysed using descriptive statistics and a paired-samples t-test in SPSS version 25. The mean score increases only from 58.20 to 58.50, with standard deviations of 14.94 and 18.06, respectively. The paired comparison indicates no statistically significant difference, $t(19) = -0.213$, $p = .834$. The mean gain is 0.30 points, with a 95% confidence interval from −2.65 to 3.25 points. These findings provide no evidence of improved test performance under the implementation examined. They support cautious use of Wordwall alongside explicit vocabulary teaching, guided familiarisation, and repeated practice. The small sample and absence of a comparison group limit causal and wider conclusions.

Keywords: Wordwall; vocabulary mastery; elementary education; digital learning; pre-experimental study

INTRODUCTION

English vocabulary instruction in elementary school requires learners to connect unfamiliar forms with meanings they can recognise and use. Knowing individual words helps pupils understand classroom instructions, identify objects, and respond to simple questions. Teaching vocabulary therefore involves more than presenting a list for memorisation. Learners need understandable examples and opportunities to retrieve words in activities related to their lessons. For fifth graders, the central instructional question is whether a classroom activity helps them develop word knowledge that remains available when they complete a vocabulary task independently.

Research by lecturers associated with English language education at IKIP Mataram and Universitas Pendidikan Mandalika offers several relevant perspectives. Permana and Qomariyah (2018) reported vocabulary improvement through crafting

activities with fourth-grade pupils, connecting vocabulary with concrete classroom participation. Tawali (2018) examined definition-based vocabulary instruction, directing attention to explanation of meaning. These approaches place the teaching activity, rather than the medium alone, at the centre of vocabulary development. Their relevance to digital learning lies in the need to make the meaning of a target word clear before asking pupils to recognise it in a game.

Other local studies connect vocabulary learning with interaction and different forms of practice. Sumarni, Bhatta, and Kho (2022) investigated total physical response integrated with meaningful classroom interaction. Hidayatullah, Munir, and Tawali (2022) reported improved vocabulary and classroom participation through visual, auditory, and kinaesthetic activities. Sumarni (2016) also identified a relationship between morphological awareness and vocabulary knowledge among university students. Although the participants and instructional demands differ from elementary education, this research shows that vocabulary deserves attention as language knowledge supported by purposeful instruction. It does not establish that one activity will produce the same results across age groups.

Wordwall is a web-based platform that can present learning content through interactive game formats. In this article, Wordwall refers to the digital platform used in the source study, rather than a physical display of vocabulary cards. The lesson plans attached included matching, word-search, and quiz activities. Such tasks can provide repeated encounters with lesson vocabulary, while allowing a teacher to connect pictures, word forms, and responses. Their usefulness nevertheless depends on whether pupils understand the task and can focus on the words being practised.

Existing research gives reasons to investigate Wordwall while retaining attention to context. Hasram et al. (2021) reported significant vocabulary gains among Year 5 pupils who used Wordwall as supplementary learning material. Nurammida et al. (2024) also found higher vocabulary scores after Wordwall instruction with eighth-grade students. These positive findings concern particular implementations and learner groups. They create a basis for a local evaluation, but cannot substitute for evidence from fifth graders at SDN 19 Cakranegara. Learners'

initial English knowledge and the organisation of instruction may differ across schools.

The broader literature further distinguishes learner experience from measured achievement. Aulia et al. (2024) explored senior high school students' experiences of vocabulary learning through online games using interviews and group discussions. Sugesti et al. (2023) analysed learner and teacher needs before developing mobile vocabulary materials. Zaen et al. (2022) examined vocabulary learning and perceptions through a word-wall approach involving classroom displays. The latter should not be treated as direct evidence about the digital Wordwall platform. Together, these studies indicate why a technology-related label alone does not define either the teaching process or the type of evidence produced.

The present study addressed a classroom-specific question: did fifth-grade students' vocabulary scores change significantly after Wordwall-supported teaching at SDN 19 Cakranegara in the 2024/2025 academic year? A one-group pretest–posttest design compared the same pupils before and after instruction. The contribution is a transparent account of an implementation that did not show a significant mean increase. Reporting this outcome helps place positive findings from other settings in context and directs attention to the instructional conditions that should be examined in future work.

METHOD

This study used a quantitative pre-experimental one-group pretest–posttest design. Vocabulary performance was measured before the treatment, the class received Wordwall-supported instruction, and performance was measured again afterwards. No comparison class was included. Consequently, the analysis examined within-class score change and did not isolate the effect of Wordwall from ordinary teaching, familiarity with the test, or other influences operating during the study.

The setting was SDN 19 Cakranegara in the 2024/2025 academic year. The population comprised 60 fifth-grade students distributed across three classes. A lottery selected class V-A, which consisted of 20 students. This procedure selected an intact class; it was not individual random assignment to treatment conditions. All

20 students had paired pretest and posttest scores in the analysis. Individual names were replaced by student codes , and only aggregate results are presented here.

The instrument was a written vocabulary test containing 25 multiple-choice items aligned with elementary learning materials. The pretest was administered before Wordwall instruction and was allocated 60 minutes. A posttest using similar questions followed the treatment. The test provided a bounded measure of vocabulary performance under written multiple-choice conditions. It did not separately measure spontaneous speaking, pronunciation, productive word use, or long-term retention.

The accompanying lesson plans covered body-part vocabulary, descriptions, and comparative adjectives. Planned activities connected teacher explanation and modelling with interactive Wordwall tasks, including a word search and a gameshow quiz. Pupils were asked to participate in identifying vocabulary and responding to prompts related to lesson content. The plans specified 70-minute learning allocations, but the research report did not establish a sufficiently clear implementation log to confirm the exact total exposure received by each pupil. Therefore, no precise treatment dose is claimed in this article.

Descriptive analysis in SPSS version 25 summarised the number of students, means, standard deviations, and observed score ranges. A two-tailed paired-samples t-test compared the pretest and posttest at a significance level of .05. The original SPSS appendix was used to resolve inconsistent figures in the narrative and summary tables. In particular, the paired-test probability was .834, and the score minima were 16.00 at both administrations. The confidence interval was expressed in the direction of posttest minus pretest to describe the estimated gain.

RESULTS AND DISCUSSION

The descriptive results showed little change in the class mean after Wordwall-supported instruction. Table 1 presents the values from the original SPSS output. The average rose by 0.30 points, while the lowest observed score remained unchanged. The maximum increased, but the higher posttest standard deviation indicated wider variation in pupils' scores. These patterns do not support a general statement that all students improved.

Table 1. Vocabulary test scores before and after Wordwall instruction

Measurement	n	Mean	SD	Minimum	Maximum
Pretest	20	58.20	14.94	16.00	84.00
Posttest	20	58.50	18.06	16.00	92.00

The small mean difference is central to interpretation. A higher posttest maximum can coexist with almost unchanged overall achievement because gains and declines may offset one another. Similarly, increased variability is not evidence that the medium caused unequal learning; it only describes the spread of the observed scores. With a small class, a limited number of individual changes can influence both the mean and standard deviation. The aggregate results therefore need to be read together rather than selecting only the most favourable indicator. The Shapiro–Wilk probabilities in the appendix were .142 for the pretest and .831 for the posttest. Neither separate distribution produced a statistically significant departure from normality at .05.

Table 2. Paired comparison of vocabulary scores

Statistic	Value
Comparison	Pretest − posttest
Mean paired difference	−0.30
SD of paired differences	6.30
Standard error	1.41
95% confidence interval	−3.25 to 2.65
t / degrees of freedom	−0.213 / 19

Statistic	Value
p (two-tailed)	.834

The paired-samples t-test did not show a significant difference between the two administrations, $t(19) = -0.213$, $p = .834$. Accordingly, the null hypothesis of no mean difference was not rejected. Expressed as posttest minus pretest, the mean gain was 0.30 points and the 95% confidence interval ranged from −2.65 to 3.25. The interval includes zero and values on both sides of it. Thus, the data do not demonstrate improved average test performance, but neither do they establish that Wordwall has exactly zero effect in every comparable classroom.

This outcome differs from the significant gain reported by Hasram et al. (2021) among Year 5 pupils and the positive pretest–posttest result reported by Nurammida et al. (2024) among eighth graders. Such differences make the local evidence useful. Similar platform names do not guarantee equivalent materials, teaching support, or exposure. The present study cannot determine which contextual difference explains the contrasting findings because these conditions were not compared systematically. The appropriate conclusion concerns the observed implementation at SDN 19 Cakranegara rather than a universal judgement about the platform.

Limited English proficiency, difficulty understanding instructions, short implementation time, and insufficient familiarisation may have affected participation. These are plausible explanations offered by the researcher, rather than independently tested mechanisms. A future investigation could examine these possibilities by recording whether pupils understand game instructions, how much vocabulary practice they complete, and how their performance changes over repeated sessions.

The local literature provides practical directions for improving instructional design. Permana and Qomariyah (2018) connected crafting with pupils' active involvement and familiar objects. Tawali (2018) examined an instructional approach centred on definitions. Applied cautiously to this setting, these studies suggest combining clear meaning explanations with concrete examples before a digital task

begins. For body-part vocabulary, teachers might show and name the relevant parts, check understanding, and then use a game for retrieval practice. This is an instructional implication, not an intervention effect tested by the present data.

Classroom interaction also deserves attention. Sumarni et al. (2022) placed physical responses within meaningful vocabulary activities, while Hidayatullah et al. (2022) combined visual, auditory, and movement-based practice. These studies support considering varied ways for learners to respond to new words. Wordwall could be incorporated into a larger lesson sequence that includes teacher modelling, oral repetition, gestures, and independent recall. Their findings do not show that adding these elements would necessarily reverse the present outcome, but they offer grounded alternatives for further classroom evaluation.

Vocabulary knowledge itself should remain the target of instruction and assessment. Sumarni (2016) studied its relationship with morphological awareness at university level, illustrating that word knowledge can be investigated beyond an overall test score. Elementary instruction requires age-appropriate tasks, but the same need for clear outcome definitions applies. The multiple-choice instrument used here did not show whether pupils improved in identifying meanings, recalling spelling, using adjectives, or retrieving words orally. Future studies could distinguish these outcomes while retaining an appropriate overall measure.

The findings also demonstrate why positive reactions to games cannot be assumed to imply measurable vocabulary improvement. Aulia et al. (2024) described learning experiences within online gaming, whereas Sugesti et al. (2023) used needs analysis to inform vocabulary material development. Zaen et al. (2022) reported positive responses to a classroom word-wall approach. These studies answer different questions from the present paired test. An evaluation can collect both performance and experience data, but it should report them separately and explain what each measure can establish.

Several limitations constrain interpretation. The study included only one intact class and no comparison condition, so any observed change could not be uniquely attributed to Wordwall. The sample of 20 students limits precision and generalisation.

The available report did not establish test reliability, delayed retention, or a complete treatment schedule. In addition, one score in the student-level table was 54 although a 25-item test scored uniformly out of 100 would normally produce four-point increments. The recorded value was not silently changed; this scoring detail warrants checking against the original answer sheets before further analysis.

For classroom practice, the result favours monitoring actual learning during implementation. Teachers can begin with a short demonstration, check that pupils understand the target words and game instructions, and provide repeated supported practice. Brief independent checks can indicate whether pupils retrieve the vocabulary without the game interface. Future research should document treatment exposure, examine the paired differences, verify scoring, and include a comparable class and delayed assessment where feasible. These steps would help distinguish an implementation difficulty from a more persistent limitation of the instructional approach.

CONCLUSION

Wordwall-supported instruction did not produce a statistically significant vocabulary score increase among the 20 fifth graders at SDN 19 Cakranegara. The mean rose from 58.20 to 58.50, $t(19) = -0.213$, $p = .834$. The finding applies to this implementation and does not establish universal ineffectiveness. Teachers should combine digital tasks with explicit explanations, guided familiarisation, and repeated practice. Future researchers should verify scoring, document exposure, and use comparison groups and delayed tests to assess learning more clearly.

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