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Wordwall Application: Enhancing Students' Motivation and Vocabulary Mastery at Vocational High School 1 Tungkal Jaya

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Abstrak

Studi ini bertujuan untuk mengeksplorasi bagaimana penggunaan aplikasi Wordwall dapat meningkatkan motivasi belajar dan penguasaan kosakata di kalangan siswa kelas sebelas di SMK 1 Tungkal Jaya. Metode kualitatif deskriptif digunakan. Data dikumpulkan melalui observasi kelas, wawancara semi-terstruktur dengan 30 siswa dan dua guru bahasa Inggris, serta dokumentasi kegiatan Wordwall. Analisis tematik menghasilkan lima temuan utama: (1) peningkatan motivasi intrinsik melalui kegiatan pembelajaran interaktif dan kompetitif; (2) peningkatan retensi dan penggunaan kosakata dalam konteks; (3) pengembangan strategi pembelajaran mandiri dan kolaboratif; (4) pentingnya desain pedagogis dan konteks vokasional untuk transfer kosakata yang efektif; dan (5) hambatan teknis dan keterbatasan dalam kesiapan digital guru. Keberhasilan studi ini terletak pada fokus kontekstualnya pada penguasaan kosakata yang relevan dengan vokasi dan pengembangan model integratif untuk merancang kegiatan Wordwall berbasis ESP. Secara praktis, hasil penelitian ini memberikan panduan bagi para guru dalam merancang kegiatan gamifikasi yang bertahap dan kontekstual yang selaras dengan kompetensi vokasional. Secara akademis, studi ini memberikan bukti kualitatif mengenai mekanisme motivasi dan kognitif dari pembelajaran berbasis permainan digital (DGBL) dalam konteks pendidikan vokasi.

***Kata kunci*:** *Pembelajaran berbasis permainan digital, motivasi belajar, penguasaan kosakata, pendidikan vokasi, aplikasi Wordwall*

Abstract

This study aims to explore how the use of the Wordwall application can enhance learning motivation and vocabulary mastery among eleventh-grade students at Vocational High School 1 Tungkal Jaya. A descriptive qualitative method was used. Data were collected through classroom observations, semi-structured interviews with 30 students and two English teachers, and documentation of Wordwall activities. Thematic analysis yielded five main findings: (1) increased intrinsic motivation through interactive and competitive learning activities; (2) increased retention and contextual use of vocabulary; (3) the development of independent and collaborative learning strategies; (4) the importance of pedagogical design and vocational context for effective vocabulary transfer; and (5) technical barriers and limitations in teachers' digital readiness. The novelty of this study lies in its contextual focus on vocationally relevant vocabulary mastery and the development of an integrative model for designing ESP-based Wordwall activities. Practically, the results provide guidance for teachers in designing gradual and contextual gamification activities aligned with vocational competencies. Academically, this study contributes qualitative evidence regarding the motivational and cognitive mechanisms of digital game-based learning (DGBL) in the context of vocational education.

Keywords: digital game-based learning, learning motivation, vocabulary Mastery, vocation education, Wordall application

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1. INTRODUCTION

Vocabulary mastery is the foundation of language skills and often becomes a communication barrier for vocational students, particularly in ESP contexts where technical terminology is required (Nation, 2019; Schmitt, 2019). Game-based learning approaches such as Wordwall have been reported to increase engagement and motivation while also aiding vocabulary retention through repeated practice and interactive feedback. Digital repetition combined with immediate feedback strengthens lexical consolidation and retrieval processes (Webb & Nation, 2017). Several case studies and empirical studies in Indonesian educational contexts have shown that Wordwall effectively increases motivation and vocabulary learning outcomes (Ophellia et al., 2024).

Technological developments in education provide numerous opportunities to create more engaging and meaningful learning environments. Digital Game-Based Learning (DGBL) has been widely recognized as an effective pedagogical approach when aligned with learning objectives and cognitive principles (Plass et al., 2020). Popular digital platforms such as Wordwall provide interactive activities including quizzes, matching games, word searches, and anagram challenges that promote active participation and repeated exposure to vocabulary. Wordwall offers customizable features that support diverse instructional needs and enhance student participation (Hart & Burdett, 2019). According to Nisa and Susanto (2022), Wordwall helps students review learning materials in an enjoyable and interactive manner. Gamified learning environments have also been shown to enhance intrinsic motivation when instructional scaffolding is embedded within the activity design (Sailer & Homner, 2020).

Recent systematic reviews indicate that DGBL improves vocabulary retention when game mechanics are meaningfully connected to contextual practice rather than surface-level repetition (Morales et al., 2024). Specifically, Wordwall facilitates flexible vocabulary exercises that can be adapted to EFL/ESP contexts and repeated for reinforcement (Chowdhury et al., 2024). However, research also stresses that teacher pedagogical competence significantly influences the effectiveness of gamified tools (Tondeur et al., 2020).

Despite positive initial evidence, several gaps remain. Most Wordwall studies rely heavily on short-term quantitative data and rarely explore students' internal motivational processes, particularly in vocational high school contexts where English learning is closely linked to workplace communication needs (Almuafa & Alqurashi, 2025). In addition, research on vocational education emphasizes the importance of contextualized, industry-relevant vocabulary instruction aligned with competency-based curricula (Sudira, 2020). Without careful instructional alignment, gamified applications may lead to short-term engagement without deep lexical acquisition (Sailer & Homner, 2020).
This study therefore addresses these gaps by focusing on Vocational High School 1 Tungkal Jaya and examining vocational vocabulary mastery through an in-depth qualitative descriptive approach. By exploring students' experiences, motivational changes, and vocabulary internalization processes, this study aims to develop an integrative instructional model for contextual Wordwall implementation in ESP settings (Lee & Doris Shih Fu Jen, 2025). The findings are expected to provide pedagogical guidance for vocational teachers and contribute to a deeper understanding of motivational mechanisms in DGBL-based vocabulary instruction (Arsyad, 2024)

2. METHOD

This study uses a qualitative descriptive method to describe students' and teachers' experiences using the Wordwall application in English vocabulary learning at Vocational High School 1 Tungkal Jaya. This method was chosen because it allows researchers to understand phenomena naturally and in-depth, based on participants' perspectives and the actual learning context. A qualitative descriptive approach is also appropriate for exploring educational technology practices such as gamification and digital game-based learning in the classroom contextually (Rahman et al., 2022; Fitriyani & Yuliani, 2023). Qualitative research is particularly suitable for examining classroom innovation and participants' lived experiences within technology-enhanced learning environments (Creswell & Poth, 2018; Tracy, 2020).

The research was conducted at Vocational High School 1 Tungkal Jaya in a vocational English course that implemented Wordwall as a learning medium. The subjects consisted of 30 eleventh-grade students selected using a purposive sampling technique, namely students who had attended at least four learning sessions using Wordwall. Additionally, two English teachers participated to provide professional insights into the learning design, student motivation, and the application's effectiveness in improving vocabulary mastery. Participants were selected based on their active involvement in using Wordwall and their willingness to contribute to the research activities (Nugroho & Atmojo, 2021). Purposive sampling is commonly used in qualitative studies to obtain information-rich cases that illuminate the phenomenon under investigation (Campbell et al., 2020).

Data collection was conducted through classroom observations, semi-structured interviews, and documentation. Observations were used to record student activities while using Wordwall, including their enthusiasm, interactions, and involvement in completing the games. Classroom observation enables researchers to capture authentic behavior in natural settings (Flick, 2018). In-depth interviews were conducted to explore students' and teachers' perceptions, motivations, and experiences of Wordwall as a learning medium. Semi-structured interviews allow flexibility while maintaining research focus (Kallio et al., 2016). Meanwhile, documentation in the form of Wordwall game results, teacher notes, and photographs of classroom activities was used to strengthen the data obtained from observations and interviews. The use of these three techniques aims to increase data validity through source and technique triangulation (Sari & Putri, 2024; Denzin & Lincoln, 2018).

The data obtained were analyzed using thematic analysis. Interview transcripts, observation results, and documentation were carefully read to code and group the data into specific themes, such as changes in learning motivation, student strategies in mastering vocabulary, and factors supporting and inhibiting the use of Wordwall. The analysis steps followed the procedures recommended by Braun and Clarke (2021), namely data familiarization, initial coding, theme development, theme review, definition, and report writing (Astuti & Kurniawan, 2023). Thematic analysis is widely used to identify patterns of meaning across qualitative datasets in educational research (Nowell et al., 2017). Data validity techniques were carried out through member checking, where the researcher confirmed the findings with participants to avoid misinterpretation, and an audit trail to ensure transparency and dependability of the analysis process (Lincoln & Guba, 2016).

Through this methodological design, the research is expected to provide a comprehensive and trustworthy description of how Wordwall contributes to increasing the motivation and vocabulary mastery of vocational students in the real context of classroom learning.

3. RESULT AND DISCUSSION

The Thematic analysis of student interviews (N = 30), teacher interviews (N = 2), classroom observations, and Wordwall documentation yielded five main themes: (1) increased intrinsic learning motivation; (2) improved vocabulary attainment (retention and recognition of meaning forms); (3) developed independent and collaborative learning strategies; (4) the importance of pedagogical design and vocational context (ESP) for word transfer; and (5) technical barriers and a tendency to focus on entertainment aspects. The use of thematic analysis enables researchers to identify patterned meanings across qualitative datasets systematically (Braun & Clarke, 2021).

First, intrinsic motivation increased when the Wordwall activity was designed in a tiered manner, provided immediate feedback, and incorporated elements of healthy competition. Most students reported feelings of "enjoyment" and "wanting to try again," which led them to practice more frequently outside of class. These findings are consistent with studies showing that gamification and digital game-based learning (DGBL) increase engagement and enjoyment, thereby encouraging active participation (Arsyad, 2024; Hamari et al., 2016). Research also shows that immediate feedback and challenge balance are central components in sustaining intrinsic motivation in gamified environments (Sailer & Homner, 2020).

Second, regarding vocabulary mastery, the data indicate an increase in understanding of word meanings and accuracy of usage in simple vocational tasks (e.g., practical work terms). This improvement was particularly evident for words taught in the context of productive tasks and repeated through various game formats (match, quiz, and crossword). Repeated exposure and multimodal presentation are known to strengthen vocabulary retention (Webb & Nation, 2017). However, some students still struggled to transfer knowledge to more complex production without explicit teacher guidance. These results align with research reporting increases in vocabulary scores following Wordwall/DGBL interventions stronger when combined with contextual and task-based activities (Dwiningrum et al., 2024; Zou et al., 2021).

Third, learning strategies developed: students reported using personal notes, independent practice at home, and small group discussions to address difficult words. Teachers reported that Wordwall facilitated differentiation and monitoring of student progress. These findings support studies highlighting the role of DGBL in fostering metacognitive awareness and self-regulated learning (Bouzaiane & Youzbashi, 2024; Broadbent & Poon, 2015). Gamified platforms can scaffold learner autonomy when integrated with reflective and collaborative tasks (Zainuddin et al., 2020).

Fourth, pedagogical design and linkage to ESP/vocational education appear crucial. Wordwalls filled with vocationally specific terms (workshop/automotive terminology, hospitality) resulted in faster internalization of the words than generic question models. Teachers who incorporated productive activities (job simulations) reported better transfer to real-world tasks. This strengthens evidence that contextualized and industry-related vocabulary instruction enhances meaningful learning and transfer (Arsyad, 2024; Nation, 2022).

Fifth, technical barriers and side effects emerged: limited internet/device access, short class durations, and the tendency for some students to simply "play to win" without deep processing of meaning. Teachers' limited digital pedagogical competence also restricted

optimal implementation. These findings are consistent with literature identifying infrastructure constraints and teacher readiness as critical challenges in DGBL implementation (Maulya, 2025; Tondeur et al., 2017).

In summary, the research results answer the problem formulation: the use of Wordwall at SMK Negeri 1 Tungkal Jaya plays a positive role in increasing learning motivation and supporting mastery of vocational vocabulary with the note that maximum effectiveness occurs when the application is combined with scaffolded, contextual instructional design and followed by productive activities that promote vocabulary transfer and deeper cognitive processing (Sailer & Homner, 2020; Nation, 2022).

4. CONCLUSION

This study concludes that the use of the Wordwall application can effectively enhance both learning motivation and vocational vocabulary mastery among eleventh-grade students at Vocational High School 1 Tungkal Jaya. The integration of game-based learning elements created a more engaging and interactive learning environment, which encouraged students to participate actively in vocabulary learning activities. Students demonstrated increased enthusiasm and willingness to practice vocabulary repeatedly, indicating stronger intrinsic motivation during the learning process.

In addition, the findings show that students' vocabulary mastery improved when Wordwall activities were designed in a structured manner and aligned with vocational contexts related to their study programs. The combination of interactive games, contextual learning tasks, and follow-up productive activities helped students recognize, remember, and apply vocational vocabulary more effectively in meaningful situations. However, the effectiveness of Wordwall depends largely on the teacher's pedagogical design, the relevance of learning materials, and the integration of digital tools with communicative language practice.

Despite these positive outcomes, several challenges were identified, including limited digital facilities, unstable internet access, and the possibility that competitive elements in games may distract students from deeper understanding if not properly guided. Therefore, teachers are encouraged to integrate Wordwall within a structured learning framework that includes clear instruction, guided practice, feedback, and assessment to ensure meaningful learning outcomes.

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