A Case Study of Vocabulary Learning through Technology-Mediated Task-Based Language Teaching: Insights from Teachers and Students

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Abstract : This qualitative case study examines teacher and student perspectives on Technology-Mediated Task-Based Language Teaching (TMTBLT) using Wordwall for English vocabulary learning in junior high school. Participants included one English teacher and six seventh-grade students. Data were collected through semi-structured interviews and analyzed thematically. Both teacher and students view this approach positively to the application of TMTBLT. The teacher found the approach enabled flexible, contextual task design and collaborative learning despite limited digital device access. Students showed high engagement, describing their learning experience as enjoyable and motivating while successfully applying newly acquired vocabulary in real-life communication. The findings demonstrate TMTBLT's effectiveness in improving vocabulary mastery and creating meaningful learning experiences.

Keywords: Techcnology-Mediated Task-Based Language Teaching (TMTBLT), Learning Experience, Wordwall, Vocabulary Classroom

Abstrak : Studi kasus kualitatif ini meneliti perspektif guru dan siswa tentang Pengajaran Bahasa Berbasis Tugas yang Dimediasi Teknologi (TMTBLT) dengan menggunakan Wordwall untuk pembelajaran kosakata bahasa Inggris di sekolah menengah pertama. Partisipan terdiri dari satu guru bahasa Inggris dan enam siswa kelas tujuh. Data dikumpulkan melalui wawancara semi-terstruktur dan dianalisis secara tematik. Baik guru maupun siswa memandang positif terhadap penerapan TMTBLT. Guru menemukan bahwa pendekatan ini memungkinkan desain tugas yang fleksibel, kontekstual, dan pembelajaran kolaboratif meskipun akses perangkat digital terbatas. Siswa menunjukkan keterlibatan yang tinggi, menggambarkan pengalaman belajar mereka sebagai hal yang menyenangkan dan memotivasi sambil berhasil menerapkan kosakata yang baru diperoleh dalam komunikasi di kehidupan nyata. Temuan ini menunjukkan keefektifan TMTBLT dalam meningkatkan penguasaan kosakata dan menciptakan pengalaman belajar yang bermakna.

Kata kunci: Pengajaran Bahasa Berbasis Tugas dan Teknologi (TMTBLT), Pengalaman Belajar, Wordwall, Pembelajaran Kosakata

1. INTRODUCTION

Vocabulary acquisition is an important part of second language learning and brings its own challenges. Students often face difficulties in understanding, recalling, and applying new vocabulary if learning relies only on conventional passive methods such as memorization or isolated word lists. Traditional approaches used in vocabulary classes do not improve long-term retention or help students use vocabulary in real communication. Modern language learning needs more creative and innovative teaching methods that increase engagement, encourage interaction, and connect to real-life situations. These methods allow students to actively use new vocabulary through meaningful activities. Effective vocabulary instruction happens when students actively use words in context, which greatly improves retention and practical use. Instead of focusing on memorization, vocabulary learning uses approaches that support exploration, curiosity, and real use. A learning environment where students connect with real-world situations through different and engaging methods is important for building

strong and lasting vocabulary skills. Also, the use of digital technology in education, especially for vocabulary learning, becomes more important in today's education. Despite the support that technological facilities provide, many schools still rely on conventional teaching methodologies that do not adequately engage students or fail to optimize the potential of technology in enhancing language learning. Technology-Mediated Task-Based Language Teaching (TMTBLT) emerges as a promising solution to address these pedagogical challenges. This innovative approach, supported by digital platforms such as Wordwall, facilitates vocabulary practice in authentic contexts and promotes sustained vocabulary retention through interactive and meaningful learning experiences. TMTBLT is an extension of the Task-Based Language Teaching (TBLT) approach, rooted in communicative language teaching and supported by real-world tasks. As defined by González-Lloret (2017), TMTBLT emphasizes the use of digital technologies not only as a delivery tool but also as an integral part of the learning task itself, providing interactive input, supporting student performance, and enabling real-time feedback.

The theoretical foundation of TMTBLT aligns with Kolb's Experiential Learning Theory (1984), which emphasizes learning through a four-stage cyclical process: Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation. In the implementation of TMTBLT, students first engage with vocabulary learning through interactive tasks provided via Wordwall (Concrete Experience). They then reflect on the learning process and the outcomes they experience (Reflective Observation), develop a deeper understanding of vocabulary use in real-life contexts (Abstract Conceptualization), and finally apply the new vocabulary in language tasks and authentic communication (Active Experimentation). Although the integration of technology in education is widely practiced, the application of TMTBLT using Wordwall as a medium for vocabulary learning remains relatively underexplored from both teacher and student perspectives, particularly in the junior high school context. This study utilizes various Wordwall features such as Open the Box, Random Cards, Group Sort, Anagram, Missing Word, and Gameshow Quiz, which are strategically aligned with Kolb's four-stage learning cycle.

Several previous studies highlight the role of TMTBLT in language education. Chong and Reinders (2020) conduct a qualitative synthesis of 16 studies, identifying the characteristics, advantages, and limitations of TMTBLT. Their findings show that TMTBLT increases student engagement and supports meaningful learning, although it requires careful

lesson planning to be effective. Similarly, Fauzyah (2023) examines the impact of TMTBLT on speaking skill development and reports an improvement in students' fluency and confidence through structured digital tasks. In relation to the use of Wordwall in vocabulary learning, several studies confirm its effectiveness. Qadrianti et al. (2025) find that Wordwall significantly improves student engagement and vocabulary comprehension in an Indonesian language course. Meanwhile, Djakfar Musthafa and Anam (2022) explore the use of digital tools to support Arabic vocabulary acquisition among eighth grade students and report positive outcomes.

Based on the background above, this study investigates the application of TMTBLT with Wordwall in vocabulary classes from the perspectives of educators and students in a junior high school context. Schmitt (2008) emphasizes that vocabulary learning is most effective when it is repeated, contextualized. Unlike previous studies that focus only on theoretical benefits or technical aspects, this research provides practical insights into the experiences, challenges, and opportunities that emerge from the integration of TMTBLT with Wordwall in vocabulary learning. The findings contribute to theoretical discussions on TMTBLT and support practical advancements in technology-enhanced language teaching. Therefore, this study aims to examine how teachers and students experience Technology-Mediated Task-Based Language Teaching (TMTBLT) with Wordwall in vocabulary learning, focusing on their experiences, the challenges they face, and the perceived contributions of this approach in a junior high school setting.

2. RESEARCH METHODOLOGY

This study uses a qualitative methodology with a case study design to investigate the application of Technology-Mediated Task-Based Language Teaching (TMTBLT) in vocabulary learning at the junior high school level, supported by the use of Wordwall technology. The case study approach is chosen because it allows for an in-depth exploration of educational phenomena in natural settings and provides a comprehensive understanding of teachers' and students' experiences (Yin, 2018).

The study takes place in a junior high school in Depok that implements TMTBLT by integrating digital applications into English vocabulary learning. Participants are selected using a purposive sampling technique based on specific criteria: one English teacher with at least three years of teaching experience and a solid understanding of TMTBLT principles, and six

seventh grade students who have experience using Wordwall in vocabulary learning through the TMTBLT approach.

Data collection is carried out through semi-structured interviews, adapted from Kvale's (1996) framework, which includes the stages of thematization, designing, interviewing, transcribing, analyzing, verifying, and reporting. In-depth interviews are conducted with both the teacher and students to explore their perspectives on the use of Wordwall-based TMTBLT in vocabulary learning. This study uses thematic analysis to identify patterns and themes that emerge from participants' experiences, following the six-phase framework proposed by Braun and Clarke (2006).

3. FINDINGS

The implementation of Technology-Mediated Task-Based Language Teaching (TMTBLT) using Wordwall in a junior high school vocabulary class revealed a dynamic learning environment shaped by the interaction between pedagogical design, technological adaptation, and student engagement.

1. Real Task with Context Design by the Teacher

The teacher designed vocabulary tasks during the application of TMTBLT using Wordwall features such as Anagram, Missing Word, and Group Sort. Each task was customized to fit the learning topic (e.g., daily routines or school-related items) or the curriculum used and to align with real-life experiences familiar to students. By doing it, the teacher ensured that students were not just exposed to vocabulary lists but actively engaged with words in relevant contexts. The tasks were introduced through clear instructions, allowing students to grasp the objective and structure of each activity before participating.

2. A Progressive Adjustment to Task Difficulty

The teacher carefully adjusted the levels of task difficulty based on students' comprehension and ability. At the beginning of the lesson cycle, simpler tasks such as matching pictures and words were prioritized to build basic understanding. As the lesson progressed, more complex formats such as anagrams and sequencing activities were added. This sequencing allowed students to gradually develop confidence and helped avoid feelings of frustration. This process also supported group-based learning, where students were able to help each other to understand and complete tasks.

3. Engagement Through Collaborative Participation

Since access to devices was limited, students participated vocabulary learning in groups using a "one device per group" rules. Despite the constraints, collaboration in groups encouraged active engagement in the application TMTBLT. Students took turns interacting with the game, discussed possible answers, and celebrated correct answers together. This created an atmosphere of shared responsibility and mutual support. Group collaboration also increased verbal interaction, which indirectly contributed to oral vocabulary development.

4. Increased Student Engagement and Motivation

Students consistently reported that the use of Wordwall enhanced their enjoyment in learning vocabulary. The integration of task using technological activities with Wordwall features stimulated their interest and transformed repetitive memorization into engaging challenges. The inclusion of time limits and visual elements introduced a sense of urgency and competition, which many students found motivating. Consequently, vocabulary learning shifted from a routine academic task to an interactive and collaborative group experience. This enjoyable learning environment contributed to increased focus and active participation among students.

5. Vocabulary Understanding Through Interactive Practice

The findings revealed that the interactive nature of Wordwall allowed students to understand word meanings through context rather than rote translation. Many students were able to recognize and recall vocabulary more effectively after completing the tasks. This improvement appeared to result from repeated exposure, contextual examples, and visual reinforcements embedded in the fun way using Wordwall. Over time, students became more comfortable associating new words with actions or objects, which in turn enhanced their vocabulary retention.

6. Real-Life Application of Vocabulary Student's Learned

The findings also showed that while students became familiar with vocabulary through stimulated tasks, they began to apply some of the words they had learned in everyday interactions. Words related to school and household activities were sometimes used in informal conversations with peers or in direct response to instructions. This demonstrated the transfer of classroom knowledge into authentic language use, highlighting the potential of TMTBLT to support communicative competence beyond the academic environment.

7. Teacher Identified Growth in Student's Vocabulary Understanding

From the teacher perspective, application TMTBLT integrated with Wordwall in vocabulary classroom led to increased student participation and more frequent use of the target language. The teacher observed that students who were previously less active began to engage more confidently during learning sessions. Notably, some students demonstrated spontaneous

use of newly learned vocabulary, both in classroom interactions and in casual conversations outside the learning context. This behavior was interpreted as an indication of deeper vocabulary retention and meaningful language acquisition. The teacher regarded Wordwall not merely as a digital teaching aid, but as an effective medium that encouraged students to internalize and apply vocabulary in authentic and purposeful ways.

4. DISCUSSION

This research revealed something interesting about how the application of TMTBLT utilizing technology changed the way students learned vocabulary. When examining what happened in the junior high school classroom, it became clear that the implementation of TMTBLT integrated with Wordwall for task-based language teaching was not just about adding technology for the sake of it. Instead, it created a new way for students to connect with English words.

What stand out most was how teacher were able to make vocabulary learning meaningful and relevant to students' daily lives. Rather than simply presenting a random list of words, teacher used Wordwall features such as Anagram, Missing Word, and Group Sort to design learning tasks around familiar and relevant topics. As the teacher explained, *"I used features like Anagram, Missing Word, and Group Sort. For example, when the topic was 'daily routine' or 'things at school', I created tasks that involved matching the word with the picture or rearranging the scrambled letters to form the correct word."* This aligned with Kolb's (1984) concept of Concrete Experience, which stated that learning became more effective when students were able to relate new information to real-life contexts.

The way teacher structured the lessons also made a significant impact. Teacher did not begin with complex tasks right away but started with simpler activities, such as matching pictures to words, and gradually progressed to more challenging tasks like arranging complete sentences. This deliberate scaffolding of difficulty reflected what Kolb referred to as Abstract Conceptualization supporting students in gradually making sense of what they were learning. As the teacher described, *"I adjusted the level of difficulty. For new students, I gave easier tasks such as choosing meanings or matching pictures. Once they understood, I moved on to sentence arrangement or word guessing."* This kind of thoughtful progression helped students feel more confident rather than overwhelmed.

Even though the school did not have enough devices for every student, the results in group work became one of the most effective aspects of the approach. The teacher explained the practical solution: *"Since not all students had mobile phones, they worked in groups using*

one phone when necessary. The main focus remained on the laptop and projector I provided." With this setup, students naturally supported one another, discussed answers collaboratively, and developed understanding as a team. This statement aligned with Schmitt's (2008) view that interaction and repetition are essential for vocabulary retention. Students frequently discussed responses aloud, corrected each other's mistakes, and navigated tasks collectively. One student shared how group work facilitated learning: *"It was easier because I could discuss with friends,"* while another noted, *"It was simpler because we worked in groups."* These reflections demonstrated how peer collaboration became an integral component of the learning process, particularly for students who were less using technology.

It was also important to note that students really enjoyed the vocabulary learning activities. The use of game features in Wordwall such as time limits, points, colorful visuals, and interactive tasks helped turn what might have been a monotonous memorization activity into something more engaging and enjoyable for student's. This supports González-Lloret's (2017) finding that a good lesson plan when use digital tasks can promote intrinsic motivation, encouraging students to participate actively without relying solely on external rewards. Many students expressed enthusiasm during the lessons. One student said, *"I really enjoyed it, it felt like playing while learning, so it helped me understand the meaning quickly"*, while another stated, *"It was fun, I wanted to answer as fast as possible"*. The teacher also observed this positive changes: *"Their responses were very enthusiastic, especially the first time. Even students who were usually quiet became more interested and involved"*. These reactions show how digital tools like Wordwall can help create a motivating learning environment that supports vocabulary development.

Students also seemed to gain a stronger and more lasting understanding of vocabulary. Unlike traditional methods that often rely on memorizing word lists, the use of Wordwall allowed students to see and use the same words in different tasks and situations. This repetition in various contexts helped them understand the meaning of words more naturally and connect them with specific actions or objects. Many students mentioned that repeating the same vocabulary helped them remember better. One student said, *"its often repeated repeated so I memorized it"*, and another explained, *"Because it could be repeated, it really helped"*. The visual and audio features also supported their understanding. As one student noted, *"Easier because there were pictures and colors, so it was easy to remember"*, while another added, *"Easier because there was audio"*. This combination of repetition, visuals, and sound helped reinforce their memory more effectively than simple memorization alone.

One interesting finding was that students began using the vocabulary they learned outside of class activities. They started to apply new words in everyday situations. One student shared, *"I once tried to say the names of objects in the classroom,"* while another said, *"Yes, when we were asked to introduce ourselves in English."* Some even used the vocabulary more creatively, such as *"in English songs"* or *"while chatting and sending voice notes with friends."* Simple greetings also became part of their habit. A student mentioned, *"Yes, for example greeting with Good morning"* and another added, *"For greetings with friends and saying goodbye."* This behavior reflects what Kolb (1994) described as active experimentation, where learners try to use what they've learned in real-life situations. The teacher also noticed this pattern, explaining, *"Some students started to use vocabulary without being taught, even outside the classroom,"* which indicates that students were not just memorizing words but actually internalizing them.

From the teacher's perspective, this approach brought broader changes beyond vocabulary mastery. Students who were previously quiet or less engaged became more active in class. The teacher stated, *"It was very clear. Students became more enthusiastic and felt that learning vocabulary was more fun. Because the learning was interactive like a game, with sound and pictures, they became more interested."* The interactive activities also helped the teacher track student progress more easily. As mentioned, *"The learning became interactive, students could remember new vocabulary more easily, and I could directly assess their understanding based on their responses in class."* These findings support previous research by Fauzyah (2023), who noted that structured digital activities improved student fluency and confidence, and are in line with the conclusions of Chong and Reinders (2020) about how TMTBLT can be effective when supported with proper scaffolding.

Overall, the findings show that integrating Wordwall into TMTBLT goes beyond just adding technology to the classroom. It changes how students interact with vocabulary making learning more active, contextual, collaborative, and enjoyable. Although there were still challenges as the teacher pointed out, *"The main challenge is the lack of devices. Not all students have phones or internet data,"* and students also noted difficulties like *"Short time, so there wasn't enough time to think"* or *"Confused about the game rules at first"* these issues could be addressed with good preparation. When planned carefully, TMTBLT supported by digital tools can create a more meaningful and effective language learning experience for both students and teachers.

5. CONCLUSION AND RECOMMENDATION

This study demonstrates that Technology-Mediated Task-Based Language Teaching using Wordwall effectively transforms vocabulary learning in junior high school levels. The approach moved beyond traditional memorization to create meaningful, contextual learning that students transferred to daily conversations and real-world situations. The use of interactive, gamification tasks successfully fostered student motivation, enhanced vocabulary retention, and encouraged real-life application of target language beyond classroom boundaries. Students responded positively to the collaborative format and the scaffolded task design. The teacher's strategic design of progressive, relevant tasks aligned with Kolb's Experiential Learning Cycle, supporting students through concrete experience to active experimentation. Even with limited technology access, the collaborative "one group, one device" model enhanced peer interaction and learning outcomes. These findings reaffirm that the effectiveness of digital tools in language learning depends not on the sophistication of the technology itself, but on how well they are integrated into thoughtful, student-centered pedagogical strategies.

Despite these promising results, this study is limited by its small sample size, short duration, and its focus just on vocabulary learning. Further research should consider larger participant, longer observation periods, and the incorporation of both qualitative and quantitative data to evaluate long-term outcomes and broader language competencies. Future studies are also encouraged to explore the comparative impact of various digital tools and collaborative formats on different aspects of language acquisition. However, this research offers valuable insights for educators and institutions seeking to enhance vocabulary mastery through accessible technology and task-based learning approaches.

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