



The Effectiveness of Gamification on Enhancing Students' Vocabulary Mastery in Reading Descriptive Text

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ABSTRACT

One alternative learning tool that students can use to enhance their vocabulary mastery in reading is gamification. Yet, not much research has analyzed the implementation of gamification as a teaching media to help students in junior high school expand their vocabulary, particularly when it comes to reading. The primary goal of this research is to find out the differences related to vocabulary mastery improvement of 9th grade students at one junior high school in Indonesia, among those who use gamified learning tools “Genially, Wordwall, Blooket” and those who do not. A quasi-experimental design was employed in the study, with the researcher administering tests to collect data. Moreover, 62 students from one junior high school in Surabaya participated in the research: 31 students from 9B (the experimental class) and 31 students from 9D (the control class). According to the research findings, the significance value obtained is below 0.05, and the eta squared value is 0.406 at a modest level, indicating that the vocabulary learning outcomes of the experimental and control groups varied significantly. In conclusion, gamification substantially enhances students' reading vocabulary knowledge.

Keywords: Descriptive Text; Gamification; Vocabulary Mastery

INTRODUCTION

English is composed of several components, including pronunciation, grammar, spelling, and vocabulary (Andriani & Sriwahyuningsih, 2019). In EFL (English as a Foreign Language), learning vocabulary is important because vocabulary is an element of language that connects the four skills: listening, speaking, reading, and writing. It is intimately linked to language acquisition. The most important aspect of language learning is expanding one's vocabulary, since it is the basis of language (Nation, 2022). The students must be aware of specific vocabulary meanings and use them correctly in context. The capacity to identify and produce spoken and written words and comprehend their meaning, form, and use in many contexts is known as vocabulary mastery (Nation & Hunston, 2013). Mastering vocabulary will be important for understanding the meaning of sentences and comprehending written texts (Yuliawati, 2018). A large vocabulary can help students understand the reading materials and articulate their thoughts clearly. Thus, teachers have to be aware of the words that will be taught when teaching vocabulary. They must ascertain their students' vocabulary and needs, choose resources for vocabulary learning, create activities in the classroom that emphasize vocabulary growth and word retention, and assist students in developing strategies for handling their vocabulary acquisition.

Unfortunately, this remains an obstacle for teachers when it comes to teaching vocabulary, particularly in descriptive text. Teachers still struggle to present vocabulary to students and create activities to help them practice those words (Saleh & Ahmed Althaqafi, 2022). They typically gave their students a list of words to learn and then required them to memorize the words. Teachers may be unaware that their method is making learning boring and unattractive. Students tend to be lazy in memorizing words (Rahmawati et al., 2023). Many students also still have difficulty identifying adjectives, nouns, and the use of the present tense in descriptive texts (Rahmawati et al., 2023). As a result, students' enthusiasm for learning vocabulary is low, and their understanding of vocabulary seems to plateau or not increase at all. Therefore, it is essential to employ interactive and engaging methods to facilitate students' language learning. Media and methods used in the teaching and learning practice are the key to successful learning (Sukristiningsih & Sahid, 2022). One of the attractive learning media that can be used by teachers in their classrooms is gamification. Gressick & Langston (2017) stated that gamification is the application of gaming elements (leaderboards, badges, points, and levels) in learning construction across a range of situations and subject areas to promote independent, cooperative, and interactive learning. Game-based learning can foster the development of cognitive, social, emotional, and creative skills in addition to increasing students' active participation in an enjoyable atmosphere. Additionally, students may feel excited to learn English. In addition to being enjoyable, games offer a setting for social interaction and communication skill improvement.

Several research studies have reported excellent results for gamification use in EFL classes and lessons in relation to involvement and motivation. According to research by Qiao et al. (2023), the gamification app encouraged students to participate in group conversations (interactive engagement), examine the words (constructive engagement), and solve problems. Students viewed gamified environments as more fascinating, pleasant, and engaging than traditional threaded forums (Sadeghi et al., 2022). Learning became more enjoyable when gamification technology was used since the content was innovatively presented to them. Matyakhan et al. (2024) also mentioned that the gamification of learning increased student motivation and engagement. Thus, gamification allows students to create a sense of connection among themselves, which increases their enjoyment as well as participation in learning.

Moreover, implementing gamification aspects in the EFL (English as a Foreign Language) classrooms has enhanced students' understanding of vocabulary and literary comprehension skills. Previous studies have indicated that gamified English vocabulary acquisition promotes enhanced vocabulary learning, improves the learning outcomes of students, allows students to understand word meaning, increases vocabulary knowledge related to lexical elements, and helps them meet their target words (Matyakhan et al., 2024; Qiao et al., 2023; Rahmawati et al., 2023; Tiana et al., 2022; Yu, 2023). Based on Al Azizi & Sofiana (2025), the incorporation of structured gameplay with educational content guarantees students will not only understand vocabulary but also use it in actual life situations, thereby strengthening their comprehension of language. Pahamzah et al. (2020) also mentioned that students' learning outcomes in reading comprehension have been raised since employing game-based learning. Game features may boost students' reading abilities and students' academic performance. All things considered, gamification components in EFL learning improve students' vocabulary and reading comprehension abilities across various grade levels.

In several studies mentioned above, the previous researchers investigated the gamification's effect on the motivation of students and their achievement (in vocabulary improvement or reading skills). However, there is a limited study that explored the

effectiveness of gamification in students' ability to acquire vocabulary related to specific texts. Due to this, the current researcher filled the research gap by investigating the effectiveness of gamification in enhancing vocabulary mastery in a specific text, in this instance descriptive text. The particular vocabulary employed in descriptive texts, which is distinguished by the strategic use of adjectives, transition words, and basic verb forms, emphasizes the significance of investigating vocabulary development in this genre. Moreover, most previous studies are concentrated on just one technology or application for adopting gamification. As mentioned by Yu (2023), the usage of one gamification tool will lead to mistakes in the results.

Therefore, the current researcher applied several tools/applications of gamification in this study to get optimal results, improve knowledge of various gamification tactics, and identify effective features for vocabulary acquisition and reading comprehension. The researcher employed three gamification tools in this study: *Genially*, *Blooket*, and *Wordwall* to improve 9th-grade students' vocabulary mastery in reading descriptive text. *Genially* supports contextualized knowledge acquisition and evaluation, which strengthens vocabulary retention by incorporating written material and visual content (Budiyaning & Sujarwo, 2020). Students may simulate adjectives that describe things and nouns, and have frequent exposure to vocabulary in various contexts through the *Blooket* game modes (Nabila et al., 2025). *Wordwall* offers template-based exercises to promote long-term retention of vocabulary in descriptive text (Putri & Akhriyah, 2024). Accordingly, those three platforms were used because they were suitable to be implemented for teaching descriptive text, met the students' characteristics, and covered all the gamification elements needed in learning vocabulary.

METHOD

The study was specifically conducted in real classrooms with current participants by utilizing a quasi-experimental design. Creswell & Creswell (2023) mentioned a technique frequently applied to quasi-experiments, the control and experimental groups are chosen non-randomly. The two groups participate in pre- and post-testing sessions. The treatment was given only to the experimental group.

The sample for this research consisted of two classes involving sixty-two ninth-grade students of one Islamic Junior High School in Surabaya. 9B (31 students) and 9D (31 students) were chosen according to the English teacher's consideration. In this investigation, the experimental group (9B) was given a gamified learning treatment, whereas traditional language instruction without any gamification elements was given to the control group (9D).

Additionally, during the initial meeting, both groups were given a pre-test, and the post-test was administered at the final meeting. This test comprised 25 questions related to descriptive text that were in line with the curriculum and covered elements of vocabulary knowledge based on Nation & Hunston's (2013) theory. For grading, the students who answered correctly receive four points, while incorrect answers receive zero.

RESULT AND DISCUSSION

Result

This research is intended to find whether there is a significant difference between students who learn with gamification and those who do not in their vocabulary mastery when reading descriptive text. In order to obtain this, the researcher analyzed the data collection of the gamification effectiveness associated with students' vocabulary mastery in reading descriptive text through IBM SPSS version 25, followed by pre- and post-test results among the control and experimental groups after treatment.

Table 1: Statistical Descriptive Data of Students' Pre-Test Scores

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test Control Group	31	40	72	59,03	7,172
Pre-test Experimental Group	31	32	80	60,39	10,085
Valid N (listwise)	31				

Considering the information presented in Table 1, the control group's mean score was 59.03, with a maximum score of 72 and a minimum score of 40. Meanwhile, the experimental group had a mean score of 60.39, a maximum score of 80, and a minimum score of 32. It can be seen that the mean differential across the two groups was only 1.36, indicating that the two groups have no significant difference at the level of vocabulary mastery in reading descriptive text. Accordingly, an independent sample t-test was carried out.

Table 2: Independent Sample T-Test of Students' Pre-Test Scores

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pre-test	Equal variances assumed	2,569	,114	-,610	60	,544	-1,355	2,223	-5,801	3,091
	Equal variances not assumed			-,610	54,162	,545	-1,355	2,223	-5,811	3,101

The result of Table 2, the Independent Sample T-Test, showed that Sig. (2-tailed) is 0.544, which means there is no significant difference in the pre-test score of the control and experimental groups. Therefore, both groups had an equal level of knowledge about vocabulary dimensions in the aspects of word formation, meaning, and use that appear in descriptive text, such as adjectives, nouns, and adverbs, before treatment was given.

Table 3: Statistical Descriptive Data of Students' Post-Test Scores

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Post-test Control Group	31	48	76	64,00	7,303
Post-test Experimental Group	31	56	96	77,68	9,396
Valid N (listwise)	31				

Based on Table 3 shown above, the control group's pre-test mean score was 64.00, with a maximum of 76 and a lowest of 48. Whereas the mean score of the experimental group was 77.68, with a maximum of 96 and a minimum of 56. These data were utilized to interpret the Independent Sample T-Test for the post-test to evaluate whether the treatment provided to the experimental group influences vocabulary mastery of students.

Table 4: Independent Sample T-Test of Students' Post-Test Scores
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test	Equal variances assumed	1,152	,287	-6,399	60	,000	-13,677	2,137	-17,953	-9,402
	Equal variances not assumed			-6,399	56,554	,000	-13,677	2,137	-17,958	-9,397

Table 4 reveals that the value of Sig. (2-tailed) in the post-test for the control and experimental groups is 0.00, which is less than 0.05. Based on this data, the alternative hypothesis (Ha): "There is a significant difference in vocabulary mastery between students who learn with gamification and students who do not learn with gamification in reading descriptive text" is accepted, while the null hypothesis (Ho): "There is no significant difference in vocabulary mastery between students who learn with gamification and students who do not learn with gamification in reading descriptive text" is rejected. In the final analysis, the two groups differed significantly after the treatment was administered. Students who learn with gamification (experimental group) have significant improvements in vocabulary mastery related to defining a particular word in multiple contexts, analyzing the word classes, and finding the correct synonym/antonym in descriptive text compared to students who learn traditionally, without gamification (control group).

Additionally, the researcher estimates the effect size from the Independent Sample T-Test in post-test by employing Eta square calculation to determine the extent of treatment applied impacted students' vocabulary mastery. The effect size resulted in an Eta square value of 0.406, pointing out that the treatment modestly affects students' vocabulary improvement.

Discussion

According to the data analysis findings, implementing gamified learning using *Blooket*, *Genially*, and *Wordwall* could meaningfully and contextually improve vocabulary mastery of 9th-grade students in reading descriptive. The post-test scores revealed a substantial difference between these two groups, with the gamification-treated experimental group obtaining a higher average score than the control group with no gamification treatment. The overall results of this study are generally consistent with those of earlier research. First, research conducted by Yu (2023), stated that gamification significantly improves learning

outcomes for the English vocabulary of university students compared to non-gamified approaches. Vocabulary games allow students to interact with recognized and uncommon words, facilitating word processing in their brains. Another previous research that has similar findings to this current study, with quite variations in participant characteristics, was undertaken by Putri & Akhriyah (2024) found that implementing gamification treatments considerably increased the vocabulary test score of the experimental group at the post-test. Using gamification apps like *Wordwall* improved the experimental group's understanding of the materials compared to the control group, who simply used the book. A gamification app has been shown to assist 7th-grade students in gaining essential vocabulary knowledge, including comprehending word meaning and word use. Moreover, Tiana et al. (2022) in their research said that using gamification for online learning exercises can improve students' vocabulary significantly, specifically for 8th-grade students. Gamification tools might help students expand their vocabulary while creating a learning fun experience for everyone. As a result, it was comparable to the current study, where students showed a notable improvement in vocabulary mastery after completing all of the learning exercises utilizing gamification applications such as *Genially*, *Blooket*, and *Wordwall*.

The results of the post-test also showed that the experimental group could assist in three aspects of vocabulary dimensions, according to the theory of Nation & Hunston (2013). For the first aspect of form (word parts), they could recognize an adjective used to describe a thing and select a suitable noun based on the context of the descriptive paragraphs connected to the reuse and recycling themes. This demonstrates that gamification activities such as drag-and-drop, fill-in-the-blanks, and match could improve students' ability to identify and apply proper word parts. Besides that, they could accurately identify the synonyms and antonyms of a particular word, which relates to the second aspect, that is, meaning (associations). Students in the experimental group were able to discover the meaning of a word such as "arranged" and "durable" in the context of a descriptive sentence, comprehend the connection between vocabulary and contextual meaning, and identify a type of word or language that has the same or similar meaning in the word "fragments" or has the opposite meaning like "fancy" accurately. This improvement highlights the effectiveness of gamification in delivering interesting and repetitive exposure to target vocabulary. Furthermore, in the third aspect of use (grammatical functions), the students understood how the connection between vocabulary and word function changes in a descriptive paragraph. It can be seen from their answer related to questions like "What adjective is used to describe the look of the vase when it is painted silver?". In this case, they chose "modern" instead of "old-fashioned", "unattractive", and "common".

Thus, gamification has proven to help enhance students' vocabulary mastery in reading descriptive texts. *Wordwall* with gamification elements, including points and leaderboards, could increase their vocabulary knowledge and help them memorize word spelling (form). Using interactive and instant *Wordwall* templates in vocabulary exercises could highlight particular facets of vocabulary knowledge and give students repeated exposure to the target language (Moorhouse & Kohnke, 2024). Furthermore, *Blooket* consists of avatar elements, points, and leaderboards that can help students improve their capacity to identify vocabulary in descriptive texts as well as understand word meaning. It also has unique features: pictures displayed and instant feedback for encouraging students to actively participate in their vocabulary acquisition, making learning English vocabulary easier, and tracking their progress quickly (Sartika et al., 2023). Then, *Genially* presents escape room challenges that foster teamwork and the use of words contextually. This platform also contains educational features, such as numerous game templates, interactive slideshows, and animation that could enhance students' vocabulary and reading comprehension. As students'

reading comprehension improved, they became more interested to learn through interactive exercises (Syafitri & Sujannah, 2024).

CONCLUSION

Based on the results, it can be concluded that adding gamification to vocabulary instruction could improve students' vocabulary mastery when reading descriptive text than utilizing books as a learning medium (traditional techniques). On the post-test, the experimental group's score was significantly different from the score of the control group. It was indicated that *Blooket*, *Genially*, and *Wordwall* platforms provide interactive exercises that helped the experimental group get a deeper understanding in comparison with the control group, which only learned from the textbook. Gamification also increased students' abilities in several essential vocabulary skills, including understanding the word's meaning and employing the word in the right context of descriptive text. Since there was a significant difference between students who learned through gamification and those who did not, it can be inferred that the hypothesis was accepted. In accordance with the research findings, gamification may be used effectively in vocabulary learning, particularly in descriptive text. Gamification has also been shown to not only boost learning enjoyment but also to significantly strengthen the characteristics of vocabulary mastery.

Future research is suggested to inquire into the gamification influence on students' vocabulary knowledge in another type of text, like a recount or narrative. Research at various levels of education, either on senior high schools or university students, also needs to be undertaken. Furthermore, future research could use another platform to expand the range of learning media and materials, as well as investigate the gamification's impact on other skills, either listening, speaking, or writing.

REFERENCES

- Al Azizi, M. N., & Sofiana, N. (2025). Assessing the Effectiveness of Game-Based Learning for English Vocabulary Development Using Ludo Pedagogy. *Wiralodra English Journal*, 9(1), 152–167. <https://doi.org/10.31943/wej.v9i1.401>
- Andriani, D., & Sriwahyuningsih, V. (2019). *Student's Problem in Vocabulary Mastery at English Department of UPI YPTK Padang*.
- Budiyan, W., & Sujarwo, S. (2020). Interactive Learning Multimedia: Enhancing Vocabulary Mastery for Junior High School Students. *Jurnal Kependidikan: Penelitian Inovasi Pembelajaran*, 4(2), 295–307. <https://doi.org/10.21831/jk.v4i2.30679>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (Sixth edition). SAGE.
- Gressick, J., & Langston, J. B. (2017). The Guided Classroom: Using Gamification to Engage and Motivate Undergraduates. *Journal of the Scholarship of Teaching and Learning*, 17(3), 109–123. <https://doi.org/10.14434/v17i3.22119>
- Matyakhan, T., Chaowanakritsanakul, T., & Santos, J. (2024). *Implementing Gamification to Enhance Reading Engagement and Reading Comprehension of Thai EFL University Students*. 17, 121–239.
- Moorhouse, B. L., & Kohnke, L. (2024). Creating the Conditions for Vocabulary Learning with Wordwall. *RELC Journal*, 55(1), 234–239. <https://doi.org/10.1177/00336882221092796>
- Nabila, A., Susanto, F., & Efrizal, D. (2025). *The Effect of Blooket Interactive Learning toward Students' Vocabulary Mastery: A True-Experimental Study in Class VIII of SMP Islam Al-Azhar 52 Bengkulu City*. 11.
- Nation, I. S. P. (2022). *Learning Vocabulary in Another Language* (3rd ed.). Cambridge

- University Press. <https://doi.org/10.1017/9781009093873>
- Nation, I. S. P., & Hunston, S. (2013). *Learning Vocabulary in Another Language* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9781139858656>
- Pahamzah, J., Syafrizal, S., Juniardi, Y., & Sukaenah, P. M. (2020). *Quizizz as a Students' Reading Comprehension Learning Media: A Case Study at the Eleventh Grade of Dwi Putra Bangsa Vocational School in Cimanggu*. 5.
- Putri, A. S. A., & Akhiriyah, S. (2024). *The Use of Web-Based Vocabulary Games to Improve Junior High School Students' Vocabulary Mastery in Reading*.
- Qiao, S., Chu, S. K. W., & Yeung, S. S. (2023). Understanding how gamification of English morphological analysis in a blended learning environment influences students' engagement and reading comprehension. *Computer Assisted Language Learning*, 1–34. <https://doi.org/10.1080/09588221.2023.2230273>
- Rahmawati, S., Mandarani, V., & Megawati, F. (2023). The Effect of Gamification in Board Game to Improve Students' English Vocabulary. *Journal of English Education and Teaching*, 7(3), 526–543. <https://doi.org/10.33369/jeet.7.3.526-543>
- Sadeghi, K., Sağlık, E., Mede, E., Samur, Y., & Comert, Z. (2022). The effects of implementing gamified instruction on vocabulary gain and motivation among language learners. *Heliyon*, 8(11), e11811. <https://doi.org/10.1016/j.heliyon.2022.e11811>
- Saleh, A. M., & Ahmed Althaqafi, A. S. (2022). The Effect of Using Educational Games as a Tool in Teaching English Vocabulary to Arab Young Children: A Quasi-Experimental Study in a Kindergarten School in Saudi Arabia. *Sage Open*, 12(1), 21582440221079806. <https://doi.org/10.1177/21582440221079806>
- Sartika, K. D., Heriyawati, D. F., & Elfianto, S. (2023). The use of Blooket: A Study of Student's Perception Enhancing English Vocabulary Mastery. *ENGLISH FRANCA : Academic Journal of English Language and Education*, 7(2), 357. <https://doi.org/10.29240/ef.v7i2.7406>
- Sukristiningsih, S., & Sahid, S. (2022). EFL Teaching Material Development for Junior High Schools in Arfak Mountains Regency, West Papua. *ELS Journal on Interdisciplinary Studies in Humanities*, 5(2), 364–373. <https://doi.org/10.34050/elsjish.v5i2.21709>
- Syafitri, T. R., & Sujannah, W. D. (2024). *THE EFFECT OF GENIALLY ON STUDENTS' READING*. 7(2).
- Tiana, E. A., Anwar, K., & Marifah, U. (2022). Applying Online Gamification as the Media in Online Learning for Enhancing Learners' Vocabulary. *Journal of English Teaching, Literature, and Applied Linguistics*, 5(2), 79. <https://doi.org/10.30587/jetlal.v5i2.3305>
- Yu, Z. (2023). Learning Outcomes, Motivation, and Satisfaction in Gamified English Vocabulary Learning. *Sage Open*, 13(2), 21582440231158332. <https://doi.org/10.1177/21582440231158332>
- Yuliawati, L. (2018). The Effects of Grammar and Vocabulary Mastery on Students' Reading Comprehension. *Wanastra: Jurnal Bahasa Dan Sastra*, 10(1), 1–8. <https://doi.org/10.31294/w.v10i1.2710>