

ENHANCING ENGLISH VOCABULARY THROUGH TOY THEATER: GAMIFICATION AND CULTURE IN INDONESIAN CLASSROOMS

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Abstract

This study investigates an innovative instructional strategy to address sustained low motivation and engagement in English language learning in Indonesia by analyzing its implementation. This study examines the effectiveness of Toy Theatre, a gamified educational platform with localized cultural components, in enhancing English vocabulary acquisition among secondary school students. The pedagogical intervention contextualized vocabulary instruction within familiar cultural narratives to advance cognitive development, foster socio-emotional involvement, and highlight culturally pertinent dimensions of language education. Using a mixed-methods research design, this study employed quantitative data from pre- and post-tests, along with qualitative insights from classroom observations and interviews. The study involved 60 students and 3 educators from a secondary institution in Semarang, Indonesia, who participated in an 8-week implementation period. Toy Theatre offered interactive, game-based activities aligned with the national curriculum and enriched with traditional arts and folklore to increase student engagement. The results demonstrate a significant improvement in students' vocabulary proficiency, as evidenced by the increase in post-test scores. In this research, participants learned a higher sense of motivation and enjoyment in their learning experiences, attributable to the gamified elements and culturally pertinent content. Educators also experienced an improvement in classroom dynamics, presented by increased levels of creative and collaborative participation and involvement. In summary, the research highlights the significant efficacy of gamified, responsive pedagogical tools in promoting English language acquisition, highlighting the importance of the integration of technology with local cultural contexts and experiences to improve educational learning outcomes.

Keywords: *Gamification, cultural integration, English vocabulary, Toy Theater, language education, motivation.*

INTRODUCTION

English has emerged as a strategic priority in non-native English-speaking contexts such as Indonesia, where proficiency is closely linked to global engagement, academic mobility, and labour market competitiveness. Although English might be a central place in the national curriculum, its instruction in Indonesian secondary schools remains challenged by persistent issues. Conventional pedagogical practices, characterized by teacher centered instruction, rote memorization, and limited student interaction, often fail to accommodate diverse learning needs, resulting in low motivation, minimal engagement, and suboptimal

language acquisition outcomes (Rahman et al., 2023; Prasetyo and Utami, 2023). These limitations highlight the need of doing innovative instructional approaches that are both pedagogically effective and contextually relevant.

To address on these challenges, increasing scholarly intention has been directed toward the integration of technology in language education. From so many kinds of technological methods, gamification, referred to as the game application that have design elements for learning contexts, has become apparent to become a promising strategy to strengthen learner involvement and encouragement. Earlier studies provide evidence that gamified learning environments encourage participant involvement, self-regulated learning, (Sumardiyani & Ambarini, 2025), internal motivation through the process of giving feedback, rewards, and challenge-based tasks (Abad Segura et al., 2020; Huang and Hew, 2021). Gamification in English as a Foreign Language context appreciably develop vocabulary learning process and memory retention while decreasing learner performance anxiety generally related with traditional-based instructional methods (Yip and Kwan, 2022). These results give suggestion that gamification can improve cognitive and affective dimensions of language learning.

Culturally responsive pedagogy, in conjunction with technological innovation, has been widely acknowledge as a crucial element of productive language instruction. The integration of local cultural narrative, folklore, traditional arts and language learning materials arouses meaningfulness and active engagement by associating linguistic input and learner cultural identities (Nguyen and Tran, 2021; Sari and Wahyuni, 2022). The incorporation of cultural features into English instructions does give the reinforcement of language enhancement and the encouragement of cultural awareness and identity acknowledgement in the Indonesian educational context that is firmly established in diverse cultural tradition (Wu et al., 2021). Nonetheless, those practices are often constrained in scale, as they depend predominantly on teacher creativity and are bounded by the accessibility of structured and viable instructional means (Suyitno, 2017).

This present study is grounded in two complementary perspectives: Sociocultural Theory and Self-Determination Theory. Sociocultural Theory, stated by Vygotsky (1978), highlights that learning is built through social interaction and cultural context. In language learning environments, interactive engagement with culturally relevant materials can facilitate deeper comprehension by relating linguistic input with learners' prior cultural knowledge and experiences. Moreover, Self-Determination Theory emphasizes the significance of intrinsic motivation, autonomy, and involvement in teaching and learning processes (Deci & Ryan, 2000; Ryan & Deci, 2020). Gamified learning environments support these dimensions by providing interactive challenges, feedback, and reward mechanisms that support active learner participation.

Despite extensive empirical evidence supporting the impact of gamification and cultural integration independently, their combined application in English language classroom practices remains largely unexplored, especially in Indonesian secondary education. Prior studies have likely investigated these approaches independently, disregarding their potential synergy when considering cognitive, emotional, and cultural aspects of learning concurrently (Prasetyo & Utami, 2023). Furthermore, empirical studies investigating the role of technology-based, that is, culturally combined gamified platforms in enhancing a limited educational context, which helps close the gap between theoretical potential and classroom practice.

Responding to this gap, the present study investigates the integration of a gamified learning platform, Toy Theatre, with local cultural dimensions to advance English vocabulary mastery among Indonesian secondary students. This study aims to address

persistent challenges in English education, including low learner motivation, limited engagement, and a perception of irrelevance, by combining vocabulary learning activities with culturally familiar narratives and contexts. This study attempts to offer empirical evidence on how the culturally integrated gamified instruction give an effective holistic approach that is in line with both technological motivation and cultural relevance.

By embedding gamified learning in students' cultural frameworks, this study makes a contribution to the more extensive discourse on motivation in English language education. Furthermore, it highlights the significance of being consistent with global pedagogical enhancements to the local cultural contexts in establishing accessible, interactive, and long-term learning environments. The results of this study are to provide practical implications for educators, curriculum designers, and policymakers seeking to advance the quality and significance of English language education in Indonesia and equivalent educational settings.

METHOD(S)

This study employed a mixed-methods design to examine the Toy Theatre platform's effectiveness in strengthening English vocabulary development among secondary school students in Indonesia. By embedding quantitative and qualitative methods, it delivered a more extensive examination of the intervention's influence on learning outcomes, motivation, and involvement. At this point, quantitative data were gathered through pre- and post-tests using standardized vocabulary assessments, with paired t-tests evaluating essential advancement. Thus, qualitative data from classroom observations and semi-structured interviews provided insights into participants' experiences and perceptions, which were examined through thematic coding to identify existing patterns.

This study was carried out at MA Al Fikri Semarang, involving 60 students aged 15-17 years and three English teachers, and it has a diverse student population and is open to the implementation of innovative teaching methods. The program extended across eight weeks, integrating Toy Theatre into weekly English lessons. In the program, there were sessions about platform orientation, collaborative gamified activities such as puzzles and role-playing, and thoughtful discussions. Cultural elements, comprising traditional folklore and music, were embedded to make vocabulary learning more applicable and interactive.

Data collection occurred pre-, during, and post-intervention, while surveys assessed motivation and involvement using Likert scales, and classroom observations recorded dynamics and interactions. In this study, interviews were conducted to provide in-depth perspectives on the platform's usability and impact, while qualitative analysis used descriptive and inferential statistics, with qualitative data examined in NVivo software. Thus, triangulation ensured the results' validity and reliability.

Further, instrument validation incorporated expert reviews, pilot testing, and reliability assessments, such as Cronbach's alpha, which assessed consistency; ethical standards were also provided. Ethical standards are about informed consent, data anonymization, and institutional approval, as well as confirming consistency, instrument validation, covered pilot testing, expert reviews, and reliability assessments, such as Cronbach's alpha. While effective, the study's eight-week duration proved its capability to examine long-term impacts. The focus on one school also limited generalizability. However, the methodology provided a robust framework for investigating gamified and culturally interconnected tools, demonstrating areas of future research.

RESULTS AND DISCUSSION

Quantitative Findings: Vocabulary Acquisition and Engagement

The analysis of pre- and post-test scores demonstrated a statistically significant enhancement in vocabulary proficiency, complying with the eight-week intervention employing Toy Theatre. The mean pre-test score of 56.4 (SD = 12.8) increased to 78.9 (SD = 9.4) in the post-test, with a paired t-test result suggesting a significant improvement ($t(59) = 9.87, p < 0.001$). Given its effectiveness in facilitating vocabulary acquisition, the large effect size (Cohen's $d = 1.85$) further highlights the substantial impact of the platform on student learning outcomes. These results are presented in Table 1 below.

It was proven that the considerable enhancement in vocabulary mastery is in line with prior studies presenting that the use of digital applications, gamified media, and interactive learning platforms significantly develops students' vocabulary acquisition and language performance (Alfianto & Ambarini, 2020; Dwi et al., 2024; Putri & Ambarini, 2025; Santoso et al., 2025). The same findings were also noted in studies that applied game-based and collaborative learning approaches, which underline active involvement and repeated exposure to vocabulary items as the key aspects to learning (Artaninda et al., 2025; Laveresa et al., 2024).

In addition, survey data revealed that 85% of students showed more motivation and confidence in learning English vocabulary. Students admit that they love the process of teaching and learning that incorporates gamified elements of Toy Theatre, such as rewards, challenges, and interactive activities, which they appreciated, as they made the learning process more enjoyable, fun, and less stressful. This finding is in line with earlier research showing that game-based learning environments foster positive emotional responses, reduce anxiety, and increase learner motivation by transforming formal instruction into meaningful and fun experiences (Arif, 2024; Sari, 2020).

Table 1: Descriptive Statistics and Paired t-Test Results for Vocabulary Proficiency

Test Phase	Mean Score	SD	t-value	p-value	Effect Size (d)
Pre-Test	56.4	12.8			
Post-Test	78.9	9.4	9.87	<0.001	1.85

Table 1 summarizes the descriptive statistics and the paired t-test for vocabulary proficiency before and after the intervention. It also presents an increase in mean scores, along with a large effect size, indicating that the use of Toy Theater improved students' vocabulary learning. The statistical significance and large effect size reinforce the platform's potential as an innovative tool for language education, particularly when combined with interactive media (Utami et al., 2025) and culturally meaningful content, as emphasized in prior studies on technology-enhanced and bilingual language learning (Porto, 2022).

Qualitative Findings: Observations and Interviews

Classroom observations highlighted increased student enthusiasm and active participation during Toy Theater sessions, in which, through Collaborative tasks, students can improve their capabilities in peer interaction and teamwork, fostering a dynamic learning environment. This shift toward active participation and collaboration reflects findings from previous studies indicating that inquiry-based and problem-based learning

activities promote meaningful learner engagement and peer interaction in language classrooms (Hasanah et al., 2023). Teachers said that disengaged students became more involved, thereby improving the gamified approach's effectiveness.

Interviews with students and teachers supported these findings. Students described Toy Theatre as enjoyable and memorable, with one remarking, "It felt like playing a game rather than studying." Such learner perceptions are consistent with research showing that interactive and game-like learning environments enhance students' affective engagement and long-term learning impressions (Marques, 2020, 2023). This finding also shows that local cultural elements, such as folklore and music, improved vocabulary exercises more relatable and meaningful. The integration of local culture in language instruction strengthens contextual relevance and learner identity and improve students' connection to learning materials (Ambarini et al., 2019). They also found the platform user-friendly, although additional training was identified as necessary for maximizing its potential.

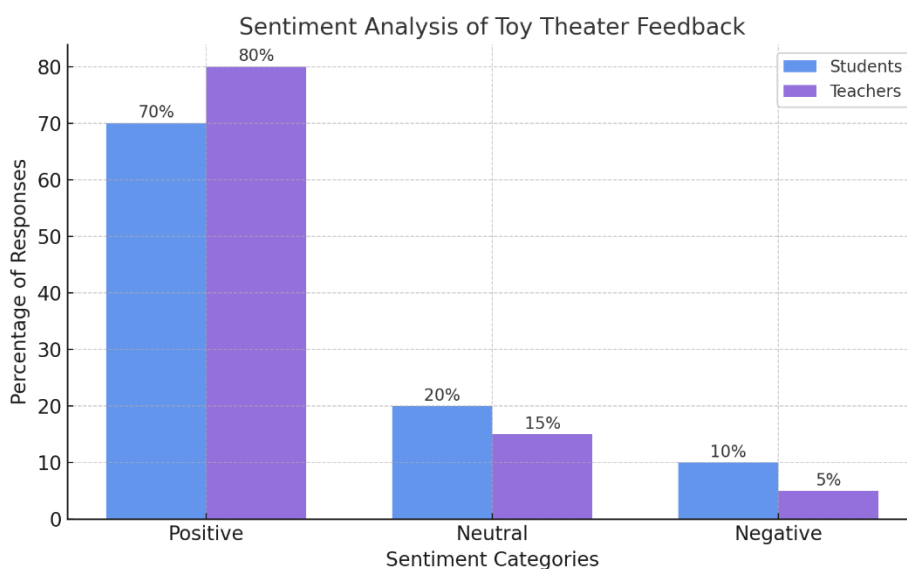


Figure 1 Sentiment Analysis of Student and Teacher Feedback on Toy Theater

Figure 1 illustrates the sentiment analysis of feedback provided by students and teachers regarding the use of the Toy Theatre platform. It presents positive feedback dominated the responses, in which 70% of students and 80% of teachers expressing favourable sentiments toward the platform. Further, it means it reflects the engaging and beneficial nature of the gamified and culturally integrated tool. There are in line with similar positive responses toward interactive digital media in studies highlighting the effectiveness of ICT-supported learning environments to improve classroom interaction and learner satisfaction (Hills, 2021; Stagg, 2022).

For neutral feedback accounted for 20% of student responses and 15% of teacher responses, it suggests that while some participants saw advantages in the platform, they may have had a more balanced view or experienced mixed outcomes. Finally, Figure 1 shows minimal negative feedback with only 10% of students and 5% of teachers expressing dissatisfaction or encountering challenges, such as technical or adaptability issues. This finding is in line with earlier research confirming the successful implementation of technology learning tools. It means that successful teaching depends not only on platform

design but also on teacher readiness and adequate pedagogical training (Merino, 2022; Tan, 2022).

In Figure 1, the integration of quantitative and qualitative findings gives a better understanding of the effectiveness of the Toy Theatre platform. While the quantitative results confirm a statistically significant improvement in students' vocabulary proficiency, the qualitative data explain the mechanisms underlying this improvement. The results of the present study also show that, during gamified learning activities, enthusiasm, active participation, and student interaction were significantly improved in classroom observations. These behavioral changes likely contributed to repeated exposure to vocabulary items and deeper engagement with learning assignments, which, in turn, promoted the observed advancement in post-test scores. Moreover, student interviews identified that learners experienced the activities as enjoyable and less stressful, recommending that the gamified environment lessen language anxiety and improved motivation. From the results of the findings, the integration of local cultural activities could create vocabulary learning more meaningful, entertaining, and relatable for students. Taken together, these qualitative insights complement the statistical findings by presenting how gamified and culturally responsive instruction not only develops measurable learning outcomes but also cultivates positive learning experiences and classroom dynamics.

Effectiveness and Implications

The study underscores the robust impact of gamified learning tools like Toy Theatre on vocabulary acquisition, supported by both quantitative and qualitative data. This finding reinforces earlier evidence that game-based and interactive instructional strategies effectively support language development while simultaneously addressing cognitive and affective learning domains (Green, 2022; Jong, 2021). The present study also shows that integrating cultural elements presents the successful of student engagement by bridging the gap between cultural identity and English learning activities. Such responsive practices align with previous research gives the demonstration of cultural values and local contexts in language instruction strengthens learner relevance, identity formation, and cross-cultural understanding (Prayogo et al., 2021).

The activities provided in the platform also improved classroom dynamics, in which the activities area able to improve student-centered interactions more than teacher-centered interactions. Through these activities, teachers adopted more roles, fostering and developing more autonomy and collaboration for learners. This pedagogical shift reflects findings from bilingual and language-integrated classroom studies showing that flexible language use and learner-centered interaction patterns promote deeper engagement and active (Prins, 2020; Whincup, 2023). These findings highlight the potential of gamified and integrated tools to address challenges in English education by creating more inclusive, participatory, and learner-driven instructional environments in language learnings.

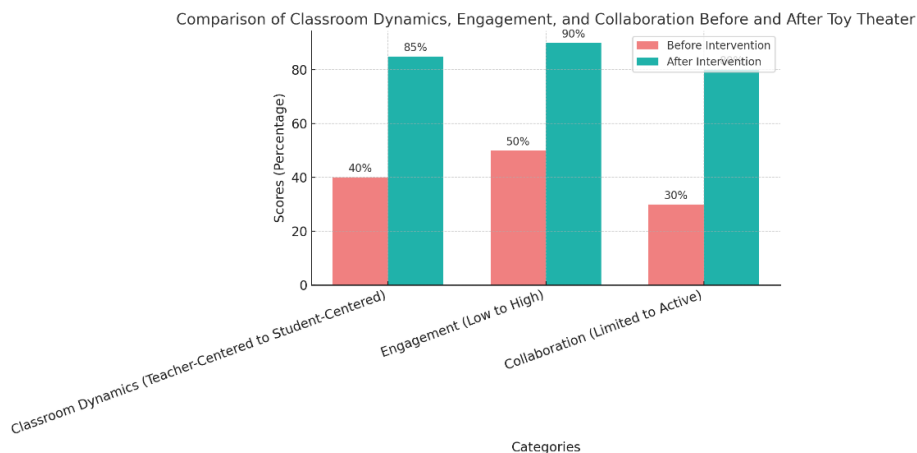


Figure 2: Comparison of Classroom Dynamics, Engagement, and Collaboration Before and After Toy Theatre

Figure 2 presents a comparison of classroom dynamics, student engagement, and collaboration before and after the implementation of Toy Theatre. The results indicate significant improvements across all three categories. The findings found that classroom dynamics increasing from 40% to 85% in which more activities are student-centered learning. This shows the platform's role in fostering active student participation and reducing reliance on traditional instructional methods proves more effective and dynamic. Such improvement aligns with previous findings that innovative, experience-based teaching models encourage participatory learning and enhance teacher readiness and competency to facilitate inclusive classroom interactions (Evans, 2022; Wainwright et al., 2020).

Student active and collaborative involvement also showed substantial growth, with scores rising from 50% to 90%. The integration of gamified elements and cultural content contributed to higher levels of interest and motivation among learners, transforming and providing the learning process into an enjoyable, exciting, and meaningful experience for learners. From Figure 2, it can also be seen that collaboration gives an equally remarkable improvement, with scores increasing from 30% to 80%. It means that the platform's effectiveness in encouraging teamwork and active peer interactions, can create a more dynamic and interactive learning environment for learners who can enjoy and feel the experience of motivating dynamic learning environment. These outcomes support earlier studies emphasizing that interactive and socially oriented learning environments foster collaboration, shared responsibility, and improved academic performance (Ambarini & Sumardiyani, 2018).

By doing so, teacher can promote and implement engagement, collaboration, and participatory learning during the English classroom practice so that the English learning activities can become more challenging and interesting and created a more inclusive and interactive classroom atmosphere.

Limitations and Future Research

The eight-week duration of the study limits conclusions about long-term vocabulary retention and sustained motivation. the next limitation of the study is one school as the place of the investigation cannot be generalized. Because of that, it is suggested that future research conduct longitudinal studies, explore diverse settings, and investigate emerging technologies such as augmented reality to enhance interactivity and personalization.

As this present study demonstrates that Toy Theatre, combined with cultural integration, significantly improves vocabulary acquisition, motivation, and engagement, the findings provide a model for addressing challenges in English education and offer practical recommendations for aligning technological innovations with local cultural contexts.

CONCLUSION

This study examined the integration of Toy Theater, a gamified learning platform enriched with cultural elements, to enhance English vocabulary acquisition among secondary school students in Indonesia. The findings indicate that activities designed for gamified and culturally integrated instruction can improve vocabulary learning while increasing student involvement and motivation. Both quantitative and qualitative results reveal that the platform improved creative and innovative participation, collaborative learning, and positive, high-classroom dynamics.

As a result of integrating local cultural elements, such as folklore and traditional arts, the vocabulary learning becomes more meaningful, fun, and contextually relevant. Further, the approach of integrating English learning with students' cultural identities advanced not only linguistic improvement but also cultural awareness and learner motivation. These findings suggested that culturally responsive gamified learning environments can help address persistent challenges in English language education (Rahman et al., 2023).

From a practical perspective, the present study confirms that educators and curriculum developers must conduct the integrating digital gamified tools with culturally relevant learning materials to build more engaging and inclusive language classrooms. Policymakers may also consider supporting teacher training and technological infrastructure to enable the effective implementation of such approaches across diverse educational contexts (Ali et al., 2023). Nonetheless, the study is limited by its relatively short intervention period and its focus on a single educational setting. It suggests that future research explore the longitudinal impacts in broader educational contexts and examine the integration of technologies to improve interactive, culturally responsive language-learning environments.

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