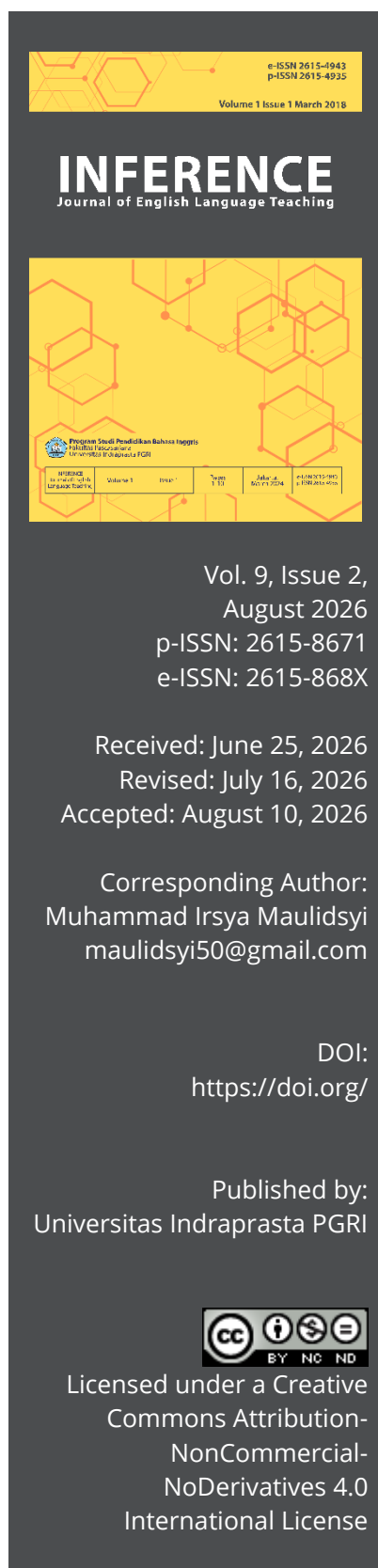




RESEARCH ARTICLE

DEVELOPING "QUEST OF ENGLISH MASTERY" BOARD GAME BASED ON SCAFFOLDING FOR VOCABULARY MEDIA

Ria Dewi Hudayani Sugara¹,

*English Education Program, STKIP Bina Mutiara Sukabumi
Jl. Pembangunan Jl. Selakaso Kulon, Pasirhalang, Kec. Sukaraja,
Kota Sukabumi, Jawa Barat 43192*

Muhammad Irsya Maulidsyi²,

*English Education Program, STKIP Bina Mutiara Sukabumi
Jl. Pembangunan Jl. Selakaso Kulon, Pasirhalang, Kec. Sukaraja,
Kota Sukabumi, Jawa Barat 43192*

Nurdha Mhuzdallifah Ismail³,

*English Education Program, STKIP Bina Mutiara Sukabumi
Jl. Pembangunan Jl. Selakaso Kulon, Pasirhalang, Kec. Sukaraja,
Kota Sukabumi, Jawa Barat 43192*

Mutiara Syifa Rahmayanti⁴,

*English Education Program, STKIP Bina Mutiara Sukabumi
Jl. Pembangunan Jl. Selakaso Kulon, Pasirhalang, Kec. Sukaraja,
Kota Sukabumi, Jawa Barat 43192*

e-mail: dewiria28@gmail.com ¹

e-mail: maulidsyi50@gmail.com ²

e-mail: nurdha.alamsyah@gmail.com ³

e-mail: Mutiararsyifa@gmail.com ⁴

Vol. 9, Issue 2,
August 2026
p-ISSN: 2615-8671
e-ISSN: 2615-868X

Received: June 25, 2026
Revised: July 16, 2026
Accepted: August 10, 2026

Corresponding Author:
Muhammad Irsya Maulidsyi
maulidsyi50@gmail.com

DOI:
<https://doi.org/>

Published by:
Universitas Indraprasta PGRI



Licensed under a Creative
Commons Attribution-
NonCommercial-
NoDerivatives 4.0
International License

Abstract: This research aims to develop an educational board game titled "Quest of English Mastery" based on a scaffolding model and evaluate its feasibility as a vocabulary learning media for junior high school students. This Research and Development study adopted the 4D model (Define, Design, Develop, Disseminate). Data from 24 English Club students at MTs YLPI 'Ibaadurrahman were collected through observations, interviews, and questionnaires, then analyzed quantitatively. Initial observations and interviews revealed students' low vocabulary mastery, passive participation, and a lack of interactive media. The developed product scored 96% (Very Feasible) from material experts and 87% (Very Feasible) from media experts. Student trials achieved 71% (Feasible) in small groups and 85% (Very Feasible) in large groups, proving it as an effective edutainment tool. Future studies are recommended to digitalize the game into a Virtual Tabletop format and implement it on a broader scale.

Keywords: Educational Board Game; Scaffolding Model; Vocabulary Mastery; R&D; Junior High School.

PENGEMBANGAN BOARD GAME "QUEST OF ENGLISH MASTERY" BERBASIS SCAFFOLDING SEBAGAI MEDIA PEMBELAJARAN KOSAKATA

Abstrak: Penelitian ini bertujuan untuk mengembangkan permainan papan edukasi "Quest of English Mastery" berbasis model *scaffolding* dan mengevaluasi kelayakannya sebagai media pembelajaran kosakata untuk siswa SMP. Penelitian *Research and Development* ini mengadopsi model 4D (*Define, Design, Develop, Disseminate*). Data dari 24 siswa *English Club* di MTs YLPI 'Ibaadurrahman' dikumpulkan melalui observasi, wawancara, dan kuesioner, lalu dianalisis secara kuantitatif. Observasi dan wawancara awal mengungkapkan rendahnya penguasaan kosakata siswa, partisipasi pasif, dan kurangnya media interaktif. Produk yang dikembangkan meraih skor 96% (Sangat Layak) dari ahli materi dan 87% (Sangat Layak) dari ahli media. Uji coba siswa mencapai 71% (Layak) pada kelompok kecil dan 85% (Sangat Layak) pada kelompok besar, membuktikannya sebagai alat *edutainment* yang efektif. Penelitian selanjutnya disarankan untuk mendigitalisasi permainan ini menjadi format *Virtual Tabletop* dan menerapkannya pada skala yang lebih luas.

Kata kunci: Permainan Papan Edukasi; Model Scaffolding; Penguasaan Kosakata; R&D; Sekolah Menengah Pertama.

INTRODUCTION

English is a universal language that is essential to master, as vocabulary serves as the fundamental cornerstone for developing reading, speaking, listening, and writing skills. However, in the context of junior high school (SMP) education in Indonesia, particularly for seventh-grade students, vocabulary learning often encounters significant challenges. Based on field analyses, the adolescent transition period and teacher-centered methods often cause students to become passive, easily bored, and unmotivated. This issue is further exacerbated by the unavailability of interactive learning media and an over-reliance on textbooks that fail to provide adequate structured support to help students remember and apply words contextually.

To address this problem, the Zone of Proximal Development (ZPD) theory proposed by Lev Vygotsky explains that there is a gap between students' actual abilities and their maximum learning potential, which can be bridged through gradual guidance or scaffolding from teachers or peers. Recent literature emphasizes that ZPD functions dynamically through social interaction and collaboration to trigger cognitive development (Margolis, 2020; Zaretsky, 2021). Utilizing educational board games offers a collaborative, face-to-face learning environment that aligns perfectly with this social learning theory, while simultaneously introducing edutainment elements to reduce cognitive pressure during vocabulary acquisition.

Previous studies have demonstrated the effectiveness of board games in language learning. For instance, Nuraini and Mubarak (2025) proved that board games are effective in improving students' speaking skills, while Sairiyah et al. (2025) and Sari et al. (2025) found that this media significantly enhances students' vocabulary acquisition through narrative texts in both classroom action and quasi-experimental research designs. Although existing literature has highlighted the potential of gamification, there is a prominent research gap that has yet to be widely explored: the lack of physical (non-digital) media that explicitly and systematically integrates the instructional scaffolding model's mechanisms such as zoning based on difficulty levels into its gameplay mechanics for basic vocabulary. The novelty and importance of this research lie in the development of an innovative board game specifically tailored to support basic-level (A1-A2) vocabulary learning through a structured, layered guidance mechanism that gradually fades as students' comprehension improves.

To bridge this gap, the objectives of this research are clearly formulated into two main points: (1) to describe the development process of the scaffolding-based educational board game "Quest of English Mastery" for junior high school students, and (2) to determine the feasibility of this media as a practical and engaging vocabulary learning instrument.

This research holds significant theoretical and practical contributions to the existing body of knowledge. Theoretically, this study expands the gamification literature within the English as a Foreign Language (EFL) context by demonstrating how the abstract structure of scaffolding and ZPD can be concretely manifested into the mechanics of physical media. Practically, this research provides an adaptive and fun learning tool for students to strengthen their vocabulary foundation independently or collaboratively, while offering a pedagogical solution for teachers to implement interactive teaching strategies in school environments with limited technological facilities.

Regarding its execution, the scope of this study is specifically limited to the development of a scaffolding-based board game focused on basic English vocabulary (A1-A2 levels). Furthermore, an acknowledged limitation of this research is that the product evaluation is restricted to feasibility testing via expert validations (material and media) and limited student responses involving 24 English Club members at MTs YLPI 'Ibaadurrahman. This study does not measure the long-term effectiveness of the product on a broader population, which is recognized as a constraint and recommended as a potential direction for future research.

RESEARCH METHOD

This research employed a Research and Development (R&D) design, applying the 4D model developed by Thiagarajan, which consists of four systematic stages: Define, Design, Develop, and Disseminate. This approach was selected for its suitability in structuring the development and validation of educational physical media. The study was conducted at MTs YLPI 'Ibaadurrahman, Sukabumi. The participants involved in the product trials were 24 students from the English Club, comprising 12 seventh-grade and 12 eighth-grade students, selected to evaluate the product's effectiveness and appeal.

To ensure comprehensive data collection, specific instruments and procedures were utilized, addressing the initial problem analysis up to product validation. The observation guidelines were implemented prior to the development phase to systematically analyze actual classroom conditions; this process specifically focused on identifying the teacher's teaching methods, the use of existing learning media, student engagement levels, and the exact obstacles encountered during the vocabulary learning process. Furthermore, interview guidelines were utilized to explore teachers' constraints by conducting an in-depth interview with the seventh-grade English teacher. The interview topics thoroughly covered student difficulties in memorizing vocabulary, conventional teaching strategies currently utilized, the lack of interactive learning resources, and strategies to foster passive students' interaction.

For the product evaluation, validation questionnaires employing a 5-point Likert scale were administered to a material expert and a media expert to assess product feasibility regarding material suitability, language, media display, and benefits. Subsequently, student response questionnaires were distributed during a small group trial involving 8 students and a wider large group trial involving 16 students to measure the media's ease of use, material clarity, attractiveness, and learning motivation.

The collected data from the questionnaires were analyzed using quantitative descriptive analytical methods. The evaluation scores from the Likert scale were calculated and converted into percentages to determine the feasibility interpretation criteria. Based on this statistical measure, a score range of 81% to 100% is definitively categorized as "Very Feasible," ensuring the reliability of the developed board game.

RESULTS AND DISCUSSION

The process of developing the Quest of English Mastery board game learning media is carried out through four main stages of the 4D model. In the Define phase, the results of the analysis indicated that

Developing "quest of English mastery" board game based on scaffolding for vocabulary media

Ria Dewi Hudayani Sugara¹, Muhammad Irsya Maulidsyi²,
Nurdha Mhuzdallifah Ismail³, Mutiara Syifa Rahmayanti⁴
p-ISSN: 2615-8671
e-ISSN: 2615-868X

students' motivation was low and difficulty in memorizing parts of speech underpinned the lack of English language skills, plus the lack of special interactive learning media in schools. In the Design phase, the researcher designed the board game "Quest of English Mastery" using the Canva tool. Based on the scaffolding concept, the game board area is divided into three competency areas in stages: Outer Zone (for basic vocabulary and spelling/A1 level), Middle Zone (grammar and reading/A1-A2 level), and Inner Zone (speaking and writing/A2 level).



Figure 1
Board Game Display

The game is also equipped with Adventure Cards which are made in the size of poker cards (63.5 x 89 mm) and divided by difficulty level (Easy, Mid, Hard)



Figure 2
Adventure Cards

Before the media is launched to students, the product is validated by experts to ensure it is feasible. Expert validation includes subject matter experts and media experts.

The material expert evaluated four main components and provided a cumulative score of 96%, which falls under the "Very Feasible" category. Analyzing the results per indicator, the *Material Suitability* aspect obtained a perfect score of 5, while the *Language* aspect achieved a maximum score of 15. Furthermore, the *Contextual* aspect and *Material Completeness* aspect also scored exceptionally high with 14 points each. This proves that the vocabulary content is highly appropriate, grammatically clear, highly relevant to the students' daily context, and successfully covers the required A1-A2 English vocabulary scope.

Subsequently, the media expert evaluated the game design and yielded an overall score of 87%, which is also categorized as "Very Feasible". Analyzed per indicator, the *Media Display* component achieved the highest proportion with 34 points, reflecting a strong visual appeal, excellent animation quality, and clear gameplay mechanics. The *Students' Enthusiasm* indicator achieved 28 points, highlighting the media's strong potential to motivate students. Meanwhile, the *Media Benefits* and *Material* indicators scored 16 and 9 points, respectively, confirming that the game effectively simplifies the learning process. However, the media expert provided a minor revision regarding the display aspect, suggesting to maximize the board's dimensions to 60 x 85 cm for a more proportional and comfortable classroom use.

Following the expert validation, product testing involved student responses across two stages: a small group trial and a larger group trial. In the small group trial involving 8 students, the media reached a total score of 453 or 71% (Feasible). Specifically, the *Learning Media* component scored 83 points, the *Material* component scored 286 points, and the *Benefits* component scored 84 points.

During the large-scale test involving 16 students, the product's performance significantly increased to a total score of 1090 or 85% (Very Feasible). When analyzing the indicators specifically from this large group trial, the *Material* component garnered the highest accumulation with 685 points, demonstrating that the presentation of the vocabulary was extremely clear, readable, and easy to understand for the students. The *Learning Media* indicator obtained 207 points, indicating that the students found the board game highly attractive and easy to operate without confusion. Finally, the *Benefits* indicator achieved 198 points, proving that the board game successfully fostered learning motivation, eliminated boredom, and elevated students' interest in learning English vocabulary. Following these successful trials, the final *Disseminate* stage involved handing over the board game media to the English Club at MTs YLPI 'Ibaadurrahman to be integrated into their regular learning routines.

The last stage is Disseminate, where board game media is handed over to the English Club at MTs YLPI 'Ibaadurrahman to be used as a supporting media in learning routines. The findings of this study are in line with Vygotsky's theory that the application of mechanical structures (such as level hints and group discussions) in non-digital media effectively shifts students' learning conditions from passive to interactive and independent.

The findings of this development research demonstrate that the "Quest of English Mastery" board game is a highly feasible, valid, and engaging medium for learning vocabulary. These successful outcomes can be deeply analyzed and explained through several relevant theoretical frameworks.

First, the high validity and effectiveness of the media can be attributed to the successful concrete manifestation of Lev Vygotsky's Zone of Proximal Development (ZPD) and scaffolding theory (Margolis, 2020; Zaretsky, 2021). The game structurally implements scaffolding through its zoning mechanics: the Outer Zone provides Level 1 scaffolding (full assistance and conceptual explanation), the Middle Zone applies Level 2 scaffolding (partial instructions), and the Inner Zone requires Level 3 scaffolding (independent task completion). The presence of a "Game Master" acts as the *more knowledgeable other*, facilitating social mediation that bridges the students' actual developmental level to their potential cognitive level. This structured progression ensures that the internalization of vocabulary moves seamlessly from an interpsychological domain (social interaction) to an intrapsychological domain (individual cognitive mastery) without overwhelming the students (Yildiz & Celik, 2020).

Second, the significant increase in student motivation and enthusiasm culminating in an 85% feasibility score during the large group trial corroborates the gamification theory in education. Hmoud, A. Y. R., Salah, O. H., & Altalib, R. A. H. (2024) postulate that educational games successfully merge fun and conceptual learning, thereby increasing engagement. By incorporating elements such as dice, player tokens, adventure cards, and a competitive yet collaborative point system, the board game lowers the students' affective filter. It transforms traditional, monotonous rote memorization into an interactive *edutainment* experience where students can experiment and learn from mistakes in a stress-free environment.

Finally, these findings align with and expand upon previous studies conducted by Sairiyah et al. (2025) and Sari et al. (2025), which concluded that educational board games significantly improve students' vocabulary acquisition. Furthermore, similar to Nuraini and Mubarak (2025) who utilized board games to enhance speaking skills, this study proves that physical game interactions effectively stimulate active communication among EFL learners. However, the distinct novelty of this research lies in its explicit and mechanical integration of the instructional scaffolding model into the physical game board's rules and layout, proving that structured, non-digital gamification remains a highly relevant and practical pedagogical solution for junior high school students.

CONCLUSIONS

The development of the educational board game "Quest of English Mastery" using the 4D model R&D method succeeded in producing quality physical learning media. Based on the feasibility test, this media received a score of 96% from material experts (Very Feasible) and 87% from media experts (Very Feasible). Student responses on a large scale reached 85% (Very Feasible), demonstrating its effectiveness in increasing student active engagement. In conclusion, this product is a valid, practical, and fun scaffolding medium to help junior high school students overcome difficulties in remembering basic level English vocabulary (A1-A2).

REFERENCES

- Hmoud, A. Y. R., Salah, O. H., & Altalib, R. A. H. (2024). The adoption of gamification in higher education and its impact on academic performance: Empirical evidence from Jordan and Palestine. *Cogent Education*. <https://doi.org/10.1080/2331186X.2024.2428907>
- Margolis, A. A. (2020). Zone of proximal development, scaffolding and teaching practice. *Cultural-Historical Psychology*, 16(3), 15–26. <https://pdfs.semanticscholar.org/d150/f64012a6cf610453ebe21069af339e9295b3.pdf>
- Nuraini, I., & Mubarak, H. (2025). Developing English board game to improve students' speaking skill. *JEELS (Journal of English Education and Linguistics Studies)*. <https://jurnalfaktarbiyah.iainkediri.ac.id/index.php/jeels/article/view/4907>
- Sairiyah, M., Hanna, I. D., & Qulub, K. (2025). Can board games enhance students' vocabulary acquisition through narrative texts? *DIDAKTIKA*. <https://didaktika.lombokinstitute.com/index.php/JPTK/article/view/43>
- Sari, S. K., Ifrianti, S., & Aryanika, S. (2025). The effectiveness of using educational board games on students' vocabulary mastery at junior high school. *Nusantara: Jurnal Pendidikan Indonesia*, 5(3), 605–616. <http://journal.rumahindonesia.org/index.php/njpi/article/view/1299>
- Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Yildiz, Y., & Celik, B. (2020). The use of scaffolding techniques in language learning: Extending the level of understanding. *International Journal of Social Sciences & Educational Studies*, 7(3), 148–153. <https://ijsses.tiu.edu.iq/index.php/ijsses/article/view/330>
- Zaretsky, V. K. (2021). One more time on the zone of proximal development. *Cultural-Historical Psychology*, 17(2), 27–40.