



THE EFFECT OF USING GAME BASED LEARNING METHOD IN IMPROVING YOUNG LEARNERS' VOCABULARY SKILL

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ABSTRACT

This study investigates the effectiveness of the Game-Based Learning (GBL) approach in improving young learners' vocabulary skills. The research was conducted at Pondok Pesantren Darul Amin Palangka Raya, involving 25 seventh-grade students selected through purposive sampling. A quantitative research method with an experimental group design was employed. The instrument used was a vocabulary test consisting of 15 questions covering five topics: Greetings, Colours, Counting, Telling Time, and Simple Present Tense. Students' performance was measured through a pre-test and a post-test. The results showed a significant improvement in students' vocabulary achievement after the implementation of the Game-Based Learning approach, with the average score increasing from 66.92 to 87.12. Statistical analysis, including the t-test and Kolmogorov-Smirnov normality test, confirmed the effectiveness of the treatment. These findings suggest that Game-Based Learning is an effective and engaging method for enhancing vocabulary acquisition among young learners. The study supports the integration of game-based strategies as a meaningful and enjoyable alternative to traditional vocabulary instruction in English language learning.

Keywords: *Game-Based Learning, vocabulary skills, young learners, English language teaching, experimental design*

I. INTRODUCTION

Language is a fundamental aspect of human communication. It serves as a vital tool that enables individuals to convey thoughts, express emotions, share information, and exchange ideas. Through language, people build connections, form social bonds, and engage in meaningful interactions within various cultural and social contexts. According to Radhika (2017), communication is the process of conveying thoughts and emotions through spoken or written language, as well as through gestures and body

movements. Therefore, learning a language to enhance communication skills is essential. Mastery of language enables individuals to express themselves more accurately, understand others more effectively, and engage in meaningful interactions across various personal, academic, and professional contexts.

English is one of the most important languages to learn, as it enables people to communicate with others across the globe. As a global lingua franca, English plays a vital role in international education, business, technology, and cultural exchange, making it a valuable skill in today's interconnected world. Rao (2019) stated that English has been recognized and adopted as a global language by speakers of many different native languages. It is widely used by people to build strong relationships and enhance the effectiveness of communication. Therefore, learning English is important, as it offers numerous benefits in fostering connections and improving interactions with others.

Even though English offers several benefits for human communication, it also presents various challenges for learners. Many people feel confused about how to learn English effectively. In school settings, for example, teachers often focus primarily on memorizing grammar rules and reading full texts, rather than encouraging students to practice the language regularly through speaking and real-life application. Bano (2024) stated that the practice of memorizing grammar rules and translating texts often causes students to become passive learners. This traditional approach limits their exposure to real-life communication and hinders the development of practical language skills.

Moreover, in some cases, many students still feel that their vocabulary has not significantly improved through school learning. They often struggle to express their thoughts in English, knowing what they want to say but feeling unsure of how to say it correctly. This lack of vocabulary mastery can lead to confusion and hesitation in communication. Therefore, learning vocabulary first is crucial, as it serves as the foundation for mastering the four main language skills: speaking, reading, writing, and listening (Dakhi & Fitria, 2019). This idea is further supported by Salawazo et al. (2020), who found that strong vocabulary knowledge significantly enhances communication across these areas. For this reason, teaching vocabulary at an early stage is essential, as it provides students with a solid base for developing their overall language proficiency.

In teaching vocabulary, selecting an effective teaching approach is essential to enhance the overall learning process. Game-based learning has become a creative

approach to education that enhances students' motivation, emotional engagement, and overall enjoyment in the learning process (Hartt et al., 2020). This aligns with the research conducted by Rizky et al. (2025), which found that students perceived game-based learning as an enjoyable and effective method for acquiring vocabulary. Students showed greater interest, motivation, and enthusiasm when learning vocabulary through game-based strategies. Therefore, Game Based Learning approach can be considered as a promising and effective solution for teaching English vocabulary.

This study aims to investigate the effectiveness of the Game-Based Learning approach in improving young learners' vocabulary skills. A quantitative method with an experimental group design was employed in the research. The findings of this study are expected to serve as a reference for teachers in selecting effective teaching methods to enhance their students' vocabulary acquisition.

II LITERATURE REVIEW

English is considered one of the universal languages, widely used for international communication across various fields. According to Blázquez & Ana (2018), learning English as a second language provides various benefits, including improved first language skills, enhanced communication and academic performance, increased creativity and confidence, stronger memory and brain function, easier acquisition of other languages, expanded social networks, and better career opportunities. However, for some individuals, learning English can be challenging. Many learners continue to struggle with the language, particularly in developing the four main skills: speaking, writing, reading, and listening. Most of them are still confused about choosing the right starting point to learn English. As a result, their English proficiency level remains stagnant.

In many cases, individuals may face challenges when trying to express their thoughts or feelings to others. Although they understand what they want to say, they often feel confused when attempting to articulate it in English. This aligns with research by Fitriyanti and Malihah (2022), which found that although learners often know what they want to express, they struggle to communicate their thoughts verbally due to

limited vocabulary and grammar, as well as emotional barriers such as low confidence, fear of making mistakes, and anxiety.

Moreover, writing messages in English can also be difficult for some learners, as they tend to translate word by word from their native language. This habit often leads to a lack of confidence and an overreliance on translation tools such as Google Translate. It aligns with the research by Khaerani et al. (2023) which found that learners frequently relied on Google Translate to translate words, sentences, and paragraphs in their English assignments, especially among those with lower proficiency. This reliance often hindered their ability to develop more independent, contextualized language skills, and made them passive users of the tool.

For teachers, it is important to identify an effective starting point when teaching English. Initially, they should focus on mastering basic vocabulary first, as it is essential for understanding the English language in everyday conversations. Therefore, learning vocabulary at an early stage is crucial, as it serves as the foundational basis for acquiring the four main language skills: speaking, writing, reading, and listening (Dakhi & Fitria, 2019). This view is reinforced by Salawazo et al. (2020), who found that a strong vocabulary significantly improves communication in each of these areas. Consequently, early vocabulary instruction is essential in providing learners with the necessary groundwork to enhance their overall language proficiency.

As the foundation of the four main language skills, vocabulary plays a crucial role in language learning. It is important for teachers to carefully select appropriate methods to optimize vocabulary development during classroom activities. Various approaches can be used as alternative solutions for teaching vocabulary. However, teachers must be selective in choosing the most effective ones. Not all students, especially young learners, respond well to every method, especially if the approach is monotonous. Learners often become disengaged when instruction relies heavily on rote memorization, rather than promoting meaningful and engaging learning experiences. According to Ganesan et al. (2025), contextual learning allows students to retain and apply vocabulary more effectively over time by fostering deeper cognitive engagement and meaningful understanding. In contrast, rote memorization primarily enhances recall, and shows that connecting vocabulary to real-life experiences helps create mental associations that support long-term vocabulary acquisition. Therefore, it is

important to select a learning method that incorporates contextual meaning and connecting vocabulary to real-life experiences.

Game-based learning has become a creative approach to education that enhances students' motivation, emotional engagement, and overall enjoyment in the learning process (Hartt et al., 2020). This aligns with the research conducted by Rizky et al. (2025), which found that students perceived game-based learning as an enjoyable and effective method for acquiring vocabulary. Students showed greater interest, motivation, and enthusiasm when learning vocabulary through game-based strategies. For young learners, using games to teach language is an enjoyable and effective approach (Trilestari et al., 2024). According to Huyen and Nga (as cited in Wulanjani, 2016), games can help children learn faster and with greater ease. Therefore, Game Based Learning approach can be considered as one of effective solution for teaching English vocabulary, especially for young learners. With its contextual relevance and engaging approach, game-based learning has the potential to enhance young learners' vocabulary skills.

This study seeks to explore whether the Game-Based Learning (GBL) approach can effectively enhance young learners' vocabulary skills. The central research question examines the potential impact of integrating games into educational settings to support vocabulary development. By focusing on young learners, the study aims to understand how interactive and engaging learning environments contribute to language acquisition. The primary objective is to investigate the effectiveness of GBL in improving vocabulary skills, offering insights into innovative teaching strategies that could benefit early language education.

III METHOD

This study employed a quantitative research method using an experimental group design. The participants were seventh-grade students from Pondok Pesantren Darul Amin Palangka Raya. A total of 25 students with varying levels of English proficiency were selected through purposive sampling. The study was conducted from February to May. Data were collected from the participants based on their scores from a pre-test and post-test to determine whether there was a significant improvement in students' vocabulary skills after the implementation of the Game-Based Learning method. The

interpretation of the data serves as the primary source of analysis, while findings from previous studies are included as complementary and supporting evidence.

The steps taken by the researcher in conducting this study began with administering a pre-test to assess the students' basic vocabulary knowledge. Based on the students' responses, the researcher identified areas of weakness in their vocabulary skills. Following this, the researcher provided treatment using the Game Based Learning approach to facilitate improvement in vocabulary development. Finally, a post-test, containing the same set of questions as the pre-test, was administered to evaluate whether there was a significant improvement in the students' vocabulary skills after the treatment.

A set of 15 questions was administered to students as an initial test to assess their basic knowledge and understanding of English vocabulary. The test covered five key topics: Greetings, Colours, Counting, Telling Time, and Simple Present Tense. The question types included multiple-choice, true/false, and fill-in-the-blank formats. Students were given 30 minutes to complete the test. The comparison of students' scores from the pre-test to the post-test demonstrated a significant improvement following the implementation of the Game-Based Learning approach in the classroom.

At the end, the researcher analysed the data based on the students' scores from the pre-test and post-test to draw a conclusion. This analysis was essential to determine whether the Game-Based Learning approach played a significant role in improving young learners' vocabulary development.

IV RESULT AND DISCUSSION

A. Result

The table presents a comparison between the students' pre-test and post-test scores to evaluate the effectiveness of the Game-Based Learning approach in improving vocabulary skills.

Tabel 1. Table of Pre-test and Post test

Students	Score			
	Pre-Test	Post-Test	Different	[D-D(average)] ^2
S1	80	100	20	0,04
S2	87	93	6	201,64
S3	60	93	33	163,84
S 4	67	80	13	51,84
S5	67	87	20	0,04
S6	60	80	20	0,04
S7	60	93	33	163,84
S8	53	80	27	46,24
S9	53	87	34	190,44
S10	47	87	40	392,04
S11	80	100	20	0,04
S12	53	80	27	46,24
S13	67	80	13	51,84
S14	80	73	-7	739,84
S15	73	93	20	0,04
S16	73	93	20	0,04
S17	47	93	46	665,64
S18	80	73	-7	739,84
S19	80	93	13	51,84
S20	67	80	13	51,84
S21	47	100	53	1075,84
S22	73	100	27	46,24
S23	73	73	0	408,04
S24	73	80	7	174,24
S25	73	87	14	38,44
		Total	505	5300
		Average	20,2	
		Median	20	
		Mode	20	
		Variance	220,8333	
		STDEV	14,86046	

Sample of score improvement:

- Average Pre-test score: 66.92
- Average Post-test score: 87.12

Based on the data above, there is a significant improvement for students' score after the post-test activity. The results show a clear improvement, with the average pre-test score being 66.92 and the average post-test score increasing to 87.12. This indicates

an average gain of 20.2 points. The median and mode of the score differences were both 20, showing consistent improvement among the majority of students. The standard deviation of 14.86 and the variance of 220.83 reflect moderate variability in score gains. While most students experienced notable progress, such as student S21 who improved by 53 points, a few students, like S14 and S18, showed slight decreases in their scores. Despite these few exceptions, the overall results suggest that Game-Based Learning had a significant and positive impact on students' vocabulary performance, supporting its use as an effective and engaging instructional method.

The researcher also calculated the T-calculated and T-table values from the data to draw a conclusion. The formulas used for each element are as follows:

- **T-Calculated** = average/(STDEV/SQRT(total amount of students))
- **T-Table** = TINV(2*0,05;(total amount of students – 1))

T Calculated	6,796559
T Table	1,710882

Conclusion-drawing rules:

1. Accept H1 (TC>TT) means that Game-Based Learning helps improve vocabulary skills.
2. Accept H0 (TC<TT) means that Game-Based Learning does not help improve vocabulary skills.

Conclusion: T-calculated > T-table, accept H1. It means that the Game Based Learning method successfully improve students' vocabulary skill.

Tabel 2. Normality Test Using the Kolmogorov-Smirnov Method

X(i)	F(i)	F.Kum	S(i)	Z(i)	P(i)	[s(i)-p(i)]	[s(i-1)-p(i)]
-7	2	2	0,08	-1,83036	0,033598	0,046402	0,033598
0	1	3	0,12	-1,35931	0,087024	0,032976	0,007024
6	1	4	0,16	-0,95556	0,169648	0,009648	0,049648
7	1	5	0,2	-0,88826	0,1872	0,0128	0,0272
13	4	9	0,36	-0,48451	0,314013	0,045987	0,114013
14	1	10	0,4	-0,41721	0,338261	0,061739	0,021739
20	6	16	0,64	-0,01346	0,494631	0,145369	0,094631
27	3	19	0,76	0,45759	0,676377	0,083623	0,036377
33	2	21	0,84	0,861346	0,805476	0,034524	0,045476

34	1	22	0,88	0,928639	0,823462	0,056538	0,016538
40	1	23	0,92	1,332395	0,908635	0,011365	0,028635
46	1	24	0,96	1,736151	0,958731	0,001269	0,038731
53	1	25	1	2,207199	0,98635	0,01365	0,02635
						KS-Calculated	0,145
						KS-Table	0,264

The researcher applied the Kolmogorov-Smirnov (KS) test to determine whether the data were normally distributed. This test compares the cumulative distribution of the sample data with the expected distribution under normality. The test results showed a KS-Calculated value of 0.145369 and a KS-Table value (KS Tabel) of 0.264.

Based on the decision rule:

- If KS-Calculated < KS-Table, then the data are normally distributed.
- If KS-Calculated > KS-Table, then the data are not normally distributed.

Since the KS-Calculated value (0.145) is less than the KS-Table value (0.264), it can be concluded that the data are normally distributed.

B. Discussion

According to the research findings, it can be concluded that the implementation of the Game-Based Learning approach effectively enhances young learners' vocabulary skills. This is evident from the comparison between the pre-test and post-test scores, where students demonstrated notable gains in performance after the treatment. The average pre-test score was 66.92, while the average post-test score increased to 87.12. These results show that students not only retained more vocabulary but were also more confident in using it.

Moreover, this result is in line with the study conducted by Rizky et al. (2025), which found that students perceived game-based learning as both enjoyable and effective for vocabulary acquisition. Students showed greater interest, motivation, and enthusiasm when learning vocabulary through game-based strategies. These findings are further supported by Trilestari et al. (2024), who emphasized that using games in language teaching is particularly beneficial and engaging for young learners.

However, it is important to note that not all students improved equally. A few students showed minimal progress or a slight decrease in scores, which may be attributed to individual differences, external distractions, or varying levels of participation during the activities.

Despite these minor exceptions, the overall findings strongly suggest that Game-Based Learning is a promising and effective approach for enhancing vocabulary acquisition among young learners.

V CONCLUSION

This study aims to investigate the effectiveness of the Game-Based Learning approach in improving young learners' vocabulary skills. The research was conducted at Pondok Pesantren Darul Amin Palangka Raya, with a sample of 25 seventh-grade students selected through purposive random sampling. A quantitative research method with an experimental group design was employed. The students' scores from the pre-test to the post-test were evaluated and analyzed to determine the impact of the Game-Based Learning approach.

Based on the research findings, it can be concluded that the Game-Based Learning approach successfully improves young learners' vocabulary skills. This conclusion is supported by the interpretation of the data, which shows a significant improvement in students' scores from the pre-test to the post-test. The results show a clear improvement, with the average pre-test score being 66.92 and the average post-test score increasing to 87.12. The average gain of 20.2 points between the two tests reflects not only improved vocabulary mastery but also greater student involvement and motivation during the learning process. This result is in line with the study conducted by Rizky et al. (2025), which found that students perceived game-based learning as both enjoyable and effective for vocabulary acquisition. Trilestari et al. (2024) also emphasized that using games in language teaching is particularly beneficial and engaging for young learners. Despite a few students showed minimal progress or a slight decrease in scores, the overall results suggest that Game-Based Learning had a significant and positive impact on students' vocabulary performance, supporting its use as an effective and engaging instructional method.

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