

**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**

Annisa Nabila¹⁾, Ferri Susanto²⁾, Dedi Efrizal³⁾

¹²³⁾ Tadris Bahasa Inggris, FTT Uinfas Bengkulu

¹annisanabila119@gmail.com, ²ferrisusanto@mail.uinfasbengkulu.ac.id,

³dedi.efrizal@mail.uinfasbengkulu.ac.id

ABSTRACT

This study aimed to investigate the effect of using Blooket as an interactive learning medium on the vocabulary mastery of eighth-grade students at SMP Islam Al-Azhar 52 Kota Bengkulu in the 2024/2025 academic year. The research employed a true-experimental method using the Solomon Four Group Design. The research instrument was a multiple-choice test covering aspects such as synonyms, antonyms, nouns, verbs, adjectives, and adverbs. The data analysis results indicated a significant effect of Blooket on improving students' vocabulary mastery (Sig. 0.000 < 0.05). Students in the experimental groups achieved higher post-test scores than those in the control groups. Therefore, Blooket has proven to be an effective, engaging learning medium that enhances students' motivation and vocabulary learning outcomes in English language instruction.

Keywords: True-experimental, Solomon Four Group, Blooket, Interactive Learning, Vocabulary Mastery, English Language.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan Blooket sebagai media pembelajaran interaktif terhadap penguasaan kosakata siswa kelas VIII SMP Islam Al-Azhar 52 Kota Bengkulu tahun ajaran 2024/2025. Metode yang digunakan yaitu true-experiment dengan desain Solomon Four Group Design. Hasil analisis menunjukkan adanya pengaruh signifikan dari penggunaan Blooket terhadap peningkatan penguasaan kosakata siswa (Sig. 0.000 < 0.05). Siswa yang belajar menggunakan Blooket memperoleh skor post-test lebih tinggi dibandingkan siswa yang belajar tanpa Blooket. Dengan demikian, Blooket terbukti efektif, menyenangkan, dan mampu meningkatkan motivasi serta hasil belajar siswa dalam pembelajaran kosakata bahasa Inggris.

Kata Kunci: True-eksperimen, Blooket, Solomon Four Group, Pembelajaran Interaktif, Penguasaan Kosakata, Bahasa Inggris.

A. INTRODUCTION

Vocabulary memorization remains a major challenge for many students, particularly for those who exhibit various learning weaknesses. This difficulty highlights the essential role of technology in English as a Foreign Language (EFL) teaching and learning. One innovative method that has emerged is the integration of students' gadget habits into the learning process, particularly through game-based learning strategies (Sartika et al., 2023). English, being a global language, functions as both a foreign and second language in most developing and developed countries. Its role as a medium of communication across nations makes it indispensable in fields such as politics, economics, culture, and especially education (Sartika et al., 2023). Therefore, English language proficiency, particularly vocabulary mastery, is a key focus in the academic setting. However, many Indonesian students still perceive learning English as burdensome and consider it one of the most difficult subjects to master, largely due to a lack of motivation to improve their language skills (Barokah et al., 2024). Language acquisition involves mastering four essential

skills: speaking, writing, listening, and reading. Vocabulary knowledge is fundamental in supporting these skills, and recent studies suggest that using mobile and online applications for vocabulary instruction can enhance language learning effectiveness (Huyen, 2022). One such application is Blooket, an online game-based learning platform that enables teachers to create and host games, allowing students to participate using their own devices. Blooket is praised for being user-friendly and engaging, with a variety of game formats designed to boost students' interest and participation in learning (PHUC LUONG HUYNH, 2024).

Despite the rise of digital tools, many schools still rely heavily on conventional teaching methods. Based on preliminary observations conducted in May 2024 through interviews with English teachers at SMP Islam Al-Azhar 52 Kota Bengkulu, several issues were identified among eighth-grade students. These included poor vocabulary achievement and difficulty recalling and using appropriate vocabulary in daily communication. Contributing factors include a lack of motivation, limited learning facilities,

non-conducive environments, and mismatches between teaching strategies and students' preferred learning styles. Moreover, the lack of teacher understanding of innovative learning models often results in teacher-centered methods that hinder student engagement. Students also tend to be passive, reluctant to participate or collaborate with peers, which further reduces vocabulary retention and usage.

Another significant barrier is the limited availability of educational resources. Many schools lack standardized learning materials and access to modern educational technologies. This limitation affects both teachers and students, making it difficult to achieve desired learning outcomes (Yudha & Mandasari, 2021). These challenges are consistent with findings from previous studies, which report similar obstacles in students' efforts to improve their vocabulary mastery. A number of recent studies support the use of Blooket as an effective tool in overcoming these challenges. For example, Barokah, Gumelar, and Munawaroh (2024) demonstrated that Blooket significantly improved the vocabulary mastery of seventh-grade students at

SMP IT Mathla'ul Anwar Malingping. Similarly, research by Isyamirahim, Rusmiati, and Chairiyani (2023) at SMP Santo Antonius, Jakarta Timur, revealed that students were more enthusiastic and performed better after using Blooket in English vocabulary learning. Another study by Sartika, Heriyawati, and Elfianto ((2023) highlighted how Blooket promotes vocabulary acquisition through contextual guessing, synonyms, visuals, and immediate feedback, helping students identify their weaknesses and develop study strategies. Kinanti and Sari (2024) found that Blooket significantly improved vocabulary achievement in Grade XI students at SMA Sutojayan when learning hortatory exposition texts. Furthermore, concluded that Blooket enhances intrinsic and extrinsic motivation, self-awareness, and independence among university students learning English in Ho Chi Minh City, primarily through its point system and interactive features (PHUC LUONG HUYNH, 2024).

Despite the growing evidence of Blooket's effectiveness, gaps remain in the research, particularly regarding its direct role in enhancing vocabulary

mastery among junior high school students in Indonesia (Nappe, 2023).

Therefore, this study aims to explore the impact of Blooket as a game-based learning tool on vocabulary mastery of Grade VIII students at SMP Islam Al-Azhar 52 Kota Bengkulu. By addressing students' motivational needs and integrating technology into classroom practices, this study seeks to contribute to the development of more engaging and effective vocabulary instruction methods in the EFL context.

B. RESEARCH METHOD

This study applied a quantitative approach with a true-experimental design using the Solomon Four Group model (Dare et al., 2020). This model was chosen for its strength in controlling threats to internal and external validity, especially pre-test effects. It divides participants into four groups: two groups receive both pre-test and post-test (one experimental, one control), and two groups receive only the post-test (also one experimental, one control). This structure allows for an accurate comparison of the effects of the

treatment while minimizing potential biases (Chu, PH. and Chang, 2017).

Table 1. Solomon Four group design

Group	Pre-test	Treatment	Post-test
A	O ₁	X	O ₂
B	O ₃	X ₀	O ₄
C	O	X	O ₅
D	O	X ₀	O ₆

Note:

O : No Pre Test Experimental Group

O₁ : Pre Test Experimental Group

O₂ : Post Test of Experimental Group

O₃ : Pre Test of Control Group

O₄ : Post Test of Control Group

O₅ : Post Test of Control Group

O₆ : Post Test of Control Group

X : Treatment

X₀ : No Treatment

This research applied a true-experimental quantitative method using the Solomon Four Group Design to examine the effectiveness of Blooket as a game-based learning platform in improving students' vocabulary mastery. The Solomon Four Group Design was chosen because it provides strong control over internal and external validity threats by combining pre-test, post-test, control, and experimental conditions. The study was conducted at SMP Islam Al-Azhar 52 Kota Bengkulu involving eighth-grade students from the 2024/2025

academic year as the population. A total of 48 students were selected as the sample and divided equally into four groups (A, B, C, and D), each consisting of 12 students. Group A and B received a pre-test before the intervention, while Group C and D did not. Group A and C received the treatment using Blooket, whereas Group B and D did not receive any treatment and served as control groups.

Table 2. total students in the Solomon

Four group				
No.	Group	Gender		Total
		Female	Male	
1.	A	9	3	12
2.	B	2	10	12
3.	C	3	9	12
4.	D	12	-	12
Total				48

The independent variable in this study was the use of the Blooket application, a digital learning platform that allows students to participate in teacher-created games using their own devices. The dependent variable was students' vocabulary mastery, which covered various linguistic elements such as synonyms, antonyms, nouns, verbs, adjectives, adverbs, and conjunctions. To measure vocabulary mastery, the researcher used a multiple-choice test consisting of 60

items. Prior to its use, the test was validated through a pilot study involving 30 students of the same grade level in a different school. Based on the validity analysis, 21 items were considered valid. The reliability of the test was assessed using Cronbach's Alpha, yielding a score of 0.828, which indicates high reliability. The difficulty level of the items was mostly categorized as medium, and the discrimination power was found to be sufficient.

Table 3. The Result of Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
0.828	60

$$p = \frac{Rh + Ri}{Nh + Ni} \times 100\%$$

$$p = \frac{328}{8} + \frac{158}{8} \times 100\%$$

$$p = 60,75\%$$

Based on the results of the calculations above, it could be concluded that the difficulty level of each item, which had been tested on 30 students using a total of 60 questions, was categorized as medium according to the interpretation of test item difficulty levels (Mamarimbing et al., 2015)

The process of testing the differential power of the items was carried out by administering 60 questions to a total of 30 eighth-grade students at MTSN 2 Bengkulu City, the school where the researcher conducted the instrument trial. Items with a differentiation index greater than 0.30 were classified as good, while those with an index below 0.30 were considered poor. In calculating the differential power, the researcher used Microsoft Excel to obtain the index (Hanifah, 2014). The following formula was used to calculate the differential power in this test:

$$DP = \frac{BA}{JA} - \frac{BB}{JB} : NM$$

$$DP = \frac{328}{8} - \frac{158}{8} : 60$$

$$DP = 0,355$$

The research procedure began with the administration of a pre-test to Groups A and B. The treatment was then carried out by engaging Groups A and C with Blooket-based vocabulary learning activities. During the treatment, students were introduced to Blooket, instructed on how to use the app, and guided to participate in vocabulary games that had been carefully designed by the

teacher. After the treatment, a post-test was given to all four groups to assess vocabulary improvement. The students' scores were categorized based on Depdikbud's classification standards ranging from "Very Poor" to "Excellent." Data were analyzed using SPSS version 28. The analysis included normality and homogeneity tests to confirm the data distribution and variance, a paired sample t-test to compare pre-test and post-test scores within groups, an independent sample t-test to compare post-test scores between the experimental and control groups, and a two-way ANOVA to examine the interaction between treatment and pre-testing. To complement the quantitative data, documentation such as photographs of learning activities, student attendance, and assessment records were also collected. This comprehensive methodological approach ensured that the findings were valid, reliable, and representative of the actual learning outcomes in the classroom.

C. RESULT & DISCUSSION

This research applied a true-experimental design using a pre-test

and post-test control group model to evaluate the effect of Blooket interactive learning on students' vocabulary mastery. The study involved four groups: Group A (experimental with pre- and post-test), Group B (control with pre- and post-test), Group C (experimental with post-test only), and Group D (control with post-test only). The results revealed a significant difference in vocabulary mastery improvement between the experimental and control groups. In Group A, the average pre-test score was 46.58, which increased to 93.33 in the post-test, showing a notable gain. Meanwhile, Group B, which did not receive the Blooket treatment, increased from a pre-test average of 48.33 to a post-test average of 88.91. Group C, which also received the Blooket-based treatment but had no pre-test, achieved a post-test average of 91.25, whereas Group D scored 88.16.

Table 4. Descriptive Analysis of Experimental and Control Group.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Prettest A	1	24	71	46,5	14,812
Posttest A	1	86	100	93,3	5,307
Prettest B	1	24	71	48,3	12,174
Posttest B	1	76	98	88,9	6,69
Posttest C	1	81	100	91,2	6,67
Posttest D	1	76	98	88,1	7,022
Valid N (listwise)	1				

Before conducting inferential statistical tests, a normality test using the Shapiro-Wilk method was performed, and the data from all groups were found to be normally distributed ($p > 0.05$). Homogeneity of variance was also tested using Levene's Test, which confirmed that the data sets had equal variance, making them suitable for parametric tests. A paired sample t-test was used to compare the pre-test and post-test scores within Groups A and B. The results showed a statistically significant improvement in both groups ($p = 0.000$), but the increase was more substantial in Group A (mean difference = 33.17) than in Group B (mean difference = 27.33),

Table 5. Paired T-Test for Group A and B

Paired Samples Test									
		Paired Differences				95% Confidence Interval of the Difference			
		Mean	Std. Deviation	Mean	Std. Error	Lower	Upper	t	Sig. (2-tailed)
Pair 1	Pretest Group A - Posttest Group A	-33.167	5.686	1.641		-36.780	-29.554	-20.205	.000
Pair 2	Pretest Group B - Posttest Group B	-27.33333	4.63844	1.33900		-30.28046	-24.38621	-20.413	.000

Indicating the positive impact of Blooket. Furthermore, an independent sample t-test was conducted to compare post-test scores between Groups C and D. Although Group C had a higher mean score, the result was not statistically significant ($p = 0.705$), which might be influenced by the absence of pre-test data in both groups.

A two-way ANOVA was also performed to analyze the effect of treatment across all groups. The result yielded an F-value of 32.69, which was significantly higher than the F-table value of 2.82 at the 0.05 significance level. This confirmed a significant effect of Blooket interactive learning on students' vocabulary mastery.

Table 6. interpretation of data in the Calculation of Two-Way Anova

Variasi	JK	Db	MK	F Hitung	f table
JK Between Groups	3984.42	3	1328	32.69	0.05
JK in Group	1787.58	44	40.62		2.82
Sum of Squares (JK)	5772	47			

In conclusion, the data analysis supports the hypothesis that Blooket interactive learning significantly enhances vocabulary mastery among eighth-grade students. The gamified environment of Blooket, which promotes active engagement and repeated exposure, played a crucial role in improving students' understanding and retention of vocabulary. These findings align with previous research that highlights the effectiveness of digital game-based learning in language acquisition and confirm that the integration of Blooket in the classroom can serve as an effective pedagogical tool to improve English language outcomes.

E. CONCLUSION & SUGGESTION

This study was a true experimental research using a pretest-posttest control group design conducted at SMP Islam Al-Azhar 52 Bengkulu City. The findings showed that students in the experimental group, who were taught using Blooket interactive learning, experienced a significantly greater improvement in vocabulary mastery compared to the control group taught by conventional methods. This was supported by statistical tests: the paired t-test ($p = 0.000$), independent t-test ($p = 0.000$), and two-way ANOVA (F-count = 32.69

> F-table = 2.82), all of which confirmed that the treatment using Blooket had a statistically significant effect on students' vocabulary outcomes. Based on these results, it is suggested that English teachers at SMP Islam Al-Azhar 52 Bengkulu City and similar schools adopt Blooket as a game-based learning tool to enhance student motivation and vocabulary acquisition. Future researchers are encouraged to expand this study by applying Blooket to other language skills such as speaking, reading, and listening, involving more diverse populations and learning materials to strengthen the generalizability of the findings.

REFERENCES

- Alen Isha Kinanti, & Hesty Puspita Sari. (2024). The Impact Of Blooket On Vocabulary Achievement Of Grade XI MIPA 2 Students At SMA Sutojayan. *Jurnal Riset Rumpun Ilmu Bahasa*, 3(1), 123–132. <https://doi.org/10.55606/jurribah.v3i1.2801>
- Barokah, I., Gumelar, R. E., & Munawaroh, T. (2024). The effect of blooket game towards students' vocabulary mastery at the seventh-grade students of SMP-IT Mathla'ul Anwar Malingping in Academic Year 2023/2024. *Journal of Contemporary Issues in Primary Education*, 2(1), 51–58. <https://doi.org/10.61476/76s5tb80>
- Chu, PH. and Chang, Y. (2017). John W, Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. *Journal of Social and Administrative Sciences*, 4(June), 3–5.
- Dare, S. E., van Dijk, W. W., van Dijk, E., van Dillen, L. F., Gallucci, M., & Simonse, O. (2020). The effect of financial education on pupils' financial knowledge and skills: Evidence from a Solomon four-group design. *Journal of Educational Research*, 113(2), 93–107. <https://doi.org/10.1080/00220671.2020.1733453>
- Hanifah, N. (2014). Perbandingan Tingkat Kesukaran, Daya Pembeda Butir Soal dan Reliabilitas Tes Bentuk Pilihan Ganda Biasa dan Pilihan Ganda Asosiasi Mata Pelajaran Ekonomi. *SOSIO E-KONS*, 6(1), 41–55. https://journal.lppmunindra.ac.id/index.php/sosio_ekons/article/view/1715
- Huyen, N. T. (2022). The Effects of Using Online Applications to Teach Vocabulary to English Learners of HUF1 in Ho Chi Minh City. *International Journal of TESOL & Education*, 2(3), 32–42.
- Mamarimbing, J. M., Sepang, J. L., & Mintarjo, C. M. O. (2015). 3 1,2,3. *Jurnal Emba*, 5(2), 1793–1803.
- Nappe, O. (2023). *Is Gamification a Curse or a Blessing? Teacher and Student Perspectives About the Use of Blooket in a High School Classroom Item Type Masters Thesis*.

<http://hdl.handle.net/20.500.12648/13973>

- PHUC LUONG HUYNH, D. (2024). The Effects of Blooket oThe Effects of Blooket on Motivation in Learning English among First-Year Non-English Majors at A University in Ho Chi Minh Cityn Motivation in Learning English among First-Year Non-English Majors at A University in Ho Chi Minh Cit. *International Journal of English Language Education*, 12(1), 56. <https://doi.org/10.5296/ijele.v12i1.21758>
- Rusmiati, Y., Chairiyani, I., Timur, J., & Blooket, P. (n.d.). *IMPROVING STUDENTS ' VOCABULARY MASTERY THROUGH ENGLISH FUN LEARNING WITH BLOOKET GAMES AT SMP*. 2(2), 226–236.
- 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>
- Yudha, H. T., & Mandasari, B. (2021). The Analysis of Game Usage for Senior High School Students to Improve Their Vocabulary Mastery. *Journal of English Language Teaching and Learning*, 2(2), 74–79. <https://doi.org/10.33365/jeltl.v2i2.1329>