



The Effectiveness of the Shuffle and Recall Game on Arabic Vocabulary Mastery Among Tenth-Grade Students

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ABSTRACT

This study aimed to determine the effectiveness of utilizing the Shuffle and Recall game, a component of the Clash of Champions program, on the Arabic vocabulary mastery among tenth-grade students at MAN 1 Semarang City. The underlying phenomenon was the low level of Arabic vocabulary proficiency among high school students, which is often attributed to the dominance of less interactive conventional teaching methods and the perception that Arabic is a difficult language to learn. The research method employed a quasi-experimental design featuring a pretest-posttest control group. The research population comprised all tenth-grade students at MAN 1 Semarang City during the 2024/2025 academic year, totaling 350 students. The results indicated a significant increase in scores within the experimental class. Prior to the intervention, the average pretest scores for both classes were relatively similar or homogeneous (Experimental: 64.57; Control: 63.71). Conversely, the posttest results demonstrated a significant difference, with the average posttest score for the experimental class reaching 84.29, while the control class achieved 72.86. The conclusion is that the Shuffle and Recall game proved to be an effective tool for improving the Arabic vocabulary mastery of tenth-grade students at MAN 1 Semarang City. This game facilitates active learning, enhances short-term and long-term memory through retrieval practice, and fosters increased student learning motivation.

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INTRODUCTION

Education stands as a cornerstone in the development of high-quality human resources. Achieving an effective learning process is the primary objective of every educator, as the success of education is heavily influenced by students' ability to master the material being taught. A strong mastery of learning materials encourages students to be more active, focused, and enthusiastic, ultimately having a positive impact on their learning outcomes (Devitriana, 2025). Arabic language learning at the secondary school level in various educational contexts frequently encounters significant obstacles, primarily concerning

students' low vocabulary mastery. Students often experience difficulties in grasping vocabulary, sentence structures, and correct pronunciation. The importance of Arabic is magnified not only as a language for communication but also as a language of religion, essential for understanding Islamic teachings. So, good mastery of learning materials encourages students to become more active, focused, and enthusiastic in participating in learning activities, which in turn positively affects their learning outcomes (Rezai et al., 2025).

However, the reality often shows low vocabulary mastery among students. Several contributing factors have been identified: the use of monotonous learning methods, a lack of engaging learning media, and the prevailing perception that Arabic is inherently difficult to learn. When learning activities are still dominated by traditional, less interactive methods, student engagement and motivation crucial prerequisites for successful language and vocabulary mastery are compromised (Alqurashi, 2025). Arabic language learning at the senior high school level in Indonesia often faces challenges related to students' low vocabulary mastery, especially when the learning process is still dominated by traditional methods that are less interactive. Several studies in the context of Arabic language learning show that engagement and motivation are important prerequisites for the success of language skill and vocabulary mastery. When learning activities are designed to be more enjoyable, interactive, and provide space for active participation, vocabulary mastery tends to increase and contributes to improving students' learning outcomes (Lazuardi & Syaheed, 2025).

In the context of Arabic language learning at the secondary school level, it is found that students often experience difficulties in understanding vocabulary, sentence structure, and correct pronunciation. Arabic is not only learned as a language of communication but also as the language of religion, which has an important role in understanding Islamic teachings. However, in reality, vocabulary mastery among students is often low. Several contributing factors include monotonous learning methods, a lack of engaging learning media, and the perception that Arabic is difficult to learn (Meilizia & Yul, 2025). The persistently low level of vocabulary mastery necessitates innovative efforts from teachers to cultivate enjoyable learning environments that actively encourage student participation. Previous studies consistently show that engagement and motivation are key factors in language learning success (Istiqomah & Sopian, 2025).

The low level of vocabulary mastery requires innovative efforts from teachers to create enjoyable learning environments and encourage active student participation. One strategy proven effective is the use of interactive educational games. Educational games can create a comfortable learning atmosphere, encourage healthy competition among students, and stimulate their participation and motivation to learn (Utami, 2025).

One strategy that has shown promise is the use of interactive educational games. Educational games are known to foster a comfortable learning atmosphere, stimulate healthy competition, and boost student participation and motivation. Previous research supports this, indicating that integrating game elements makes students more active, enthusiastic, and able to comprehend material more easily (Liat & Hayak, 2024). This game combines elements of speed, memory, and accuracy in recalling vocabulary or language structures, making it highly suitable for training listening, reading, and vocabulary memorization skills. With attractive visuals and challenging game mechanics, it is expected that students will be more motivated to engage in learning and master the material more quickly (Daud et al., 2024).

Previous research shows that the use of interactive media or games can improve students' vocabulary mastery and learning outcomes. Nisa et al. found that learning integrated

with game elements makes students more active, enthusiastic, and able to understand material more easily. According to Asher & Harackiewicz, motivation generated through enjoyable activities has the potential to develop into deep and lasting interest if supported by appropriate learning strategies (Asher & Harackiewicz, 2024).

While the effectiveness of games in general is established, there remains a limited number of studies specifically examining the effectiveness of structured, systematic digital games that combine speed, memory, and accuracy, such as the Shuffle and Recall game from the Clash of Champions program, within the specific context of Arabic vocabulary acquisition at the secondary level. There is a gap in empirical evidence testing this specific game's mechanism which trains listening, reading, and vocabulary memorization skills by combining elements of speed, memory, and accuracy against conventional methods in a controlled learning environment (Alshabeb, 2024).

Based on preliminary observations and teacher reports in numerous secondary education settings (implied by the general challenge described in the Introduction), a consistent issue is the students' difficulty in retaining Arabic vocabulary due to the passive nature of instruction. The vocabulary acquisition process often stops merely at memorization without sufficient retrieval practice, which is critical for long-term memory retention (Agnes, 2024). Considering this potential, the application of the Shuffle and Recall game in Arabic language learning at MAN 1 Semarang is expected to be an effective innovation for improving students' vocabulary mastery. This game not only serves as a fun activity but also as a learning tool that can strengthen memory, enrich vocabulary, and enhance learning motivation.

This observation aligns with the identified need for a method that integrates active recall and competitive fun. The Shuffle and Recall game offers a systematic learning structure that involves memorization, recall, and verification stages, potentially addressing the shortcomings of passive learning. Its attractive visuals and challenging mechanics are expected to significantly enhance student motivation and accelerate material mastery (Lukman et al., n.d.). By applying this game as an intervention, this study seeks to fill the identified research gap by experimentally testing its efficacy. This game serves not only as an enjoyable activity but as a targeted learning tool designed to strengthen memory, enrich vocabulary, and boost motivation.

METHODS

The research employed a quasi-experimental method utilizing a pretest-posttest control group design, which was executed at MAN 1 Semarang City in November 2025 (Sugiyono, 2023). The research population encompassed all 350 tenth-grade students for the 2025/2026 academic year. Sampling was conducted via purposive sampling, designating Class X.3 as the experimental group (35 students) and Class X.10 as the control group (35 students) (Arikunto, 2016). The primary instrument for measuring Arabic vocabulary mastery was a 15-item multiple-choice test derived from the Arabic textbook material, administered as a pretest before the intervention and a posttest following the treatment. The experimental class received a series of instructional sessions employing the Shuffle and Recall game, while the control class adhered to conventional learning methods. Data analysis commenced with prerequisite tests (Shapiro-Wilk normality and Levene homogeneity tests), followed by hypothesis testing using an independent sample t-test to assess significant differences between the groups, and concluding with N-Gain calculation to quantify the magnitude of the game intervention's effectiveness.

RESULTS AND DISCUSSION

Based Pretest data were obtained before treatment was given to both the experimental and control classes. The pretest was conducted to determine students' initial proficiency in Arabic vocabulary.

Table 2. Pretest Results

Class	N	Mean	Std. Deviation	Minimum	Maximum
Experimental	35	64.57	8.42	47	80
Control	35	63.71	9.15	45	80

Based on Table 2, it can be seen that the average pretest score for the experimental class was 64.57 with a standard deviation of 8.42, while the average pretest score for the control class was 63.71 with a standard deviation of 9.15. This shows that the initial abilities of the two classes were relatively the same or homogeneous.

Posttest data were obtained after treatment was given to the experimental class using the Shuffle and Recall game, while the control class used conventional learning methods.

Table 3. Posttest Result

Class	N	Mean	Std. Deviation	Minimum	Maximum
Experimental	35	84.29	7.68	67	100
Control	35	72.86	8.93	53	87

Based on Table 3, it can be seen that the average posttest score for the experimental class was 84.29 with a standard deviation of 7.68, while the average posttest score for the control class was 72.86 with a standard deviation of 8.93. There was a significant difference between the average posttest scores of the two classes.

A normality test was conducted to determine whether the data obtained was normally distributed or not. The normality test in this study used the Shapiro-Wilk test with the help of the SPSS 26 program.

Table 4. Normality Test Results

Data	Class	Shapiro-Wilk	Sig.	Description
Pretest	Experimental	0.971	0.458	Normal
Pretest	Control	0.968	0.398	Normal
Posttest	Experimental	0.973	0.529	Normal
Posttest	Control	0.970	0.445	Normal

Based on Table 4, the significance value of all data is greater than 0.05 (sig. > 0.05), so it can be concluded that the pretest and posttest data for both the experimental class and the control class are normally distributed.

A homogeneity test was conducted to determine whether the two classes had homogeneous variance or not. The homogeneity test in this study used the Levene test with the help of the SPSS 26 program.

Table 5. Homogeneity Test Results

Data	Levene Statistic	Sig.	Description
Pretest	0.472	0.494	Homogen
Posttest	1.326	0.253	Homogen

Based on Table 5, the significance value of the pretest and posttest data is greater than 0.05 (sig. > 0.05), so it can be concluded that both classes have homogeneous variance.

After the prerequisite tests were fulfilled, a hypothesis test was conducted using an independent sample t-test to determine whether there was a significant difference between the average posttest scores of the experimental class and the control class.

Table 6. Independent t-test results

Variabel	t	Df	Sig. (2-tailed)	Mean Difference
Posttest	5.873	68	0.000	11.43

Based on Table 6, the calculated $t_{hitung} = 5,873$ with a significance value of 0.000 ($p < 0.05$). With $df = 68$ and a significance level of 5%, $t_{tabel} = 1,995$ is obtained. Because $t_{hitung} (5,873) > t_{tabel} (1,995)$ and the significance value $0.000 < 0.05$, H_0 is rejected and H_a is accepted. This means that there is a significant difference between the Arabic vocabulary mastery of students who use the Shuffle and Recall game and students who do not use the game.

To determine the increase in Arabic vocabulary mastery in both classes, N-Gain was calculated using Hake's formula (Hake, 1999):

$$N - Gain = \frac{Skor Posttest - Skor Pretest}{Skor Maksimal - Skor Pretest}$$

Table 7. N-Gain Calculation Results

Class	Mean Pretest	Mean Protest	N-Gain	Category
Experimental	64.57	84.29	0.556	Currently
Control	63.71	72.86	0.252	low

Based on Table 7, the experimental class obtained an N-Gain of 0.556 in the moderate category, while the control class obtained an N-Gain of 0.252 in the low category. This shows that the increase in Arabic vocabulary mastery in the experimental class that used the Shuffle and Recall game was higher than in the control class that used conventional learning methods. Based on the results of data analysis, it can be seen that the use of the Shuffle and Recall game is effective in improving the Arabic vocabulary mastery of 10th grade students at MAN 1 Semarang. This is demonstrated by the following findings:

First, there was a significant increase in the average vocabulary mastery score of students in the experimental class from 64.57 on the pretest to 84.29 on the posttest, with an increase of 19.72 points. Meanwhile, the control class experienced an increase from 63.71 to 72.86, with an increase of 9.15 points. This difference in improvement shows that the Shuffle

and Recall game contributes more to improving vocabulary mastery than conventional learning methods.

Second, the independent t-test results show that there is a significant difference between the average posttest scores of the experimental class and the control class, with a $t_{hitu} (5,873) > t_{tabel}(1,995)$ and a significance value of $0.000 < 0.05$. This indicates that the Shuffle and Recall game has a significant effect on improving students' Arabic vocabulary mastery.

Third, the N-Gain analysis shows that the experimental class obtained an N-Gain of 0.556 (medium category), while the control class obtained an N-Gain of 0.252 (low category). Based on Arikunto's effectiveness criteria, with an increase of 55.6%, the Shuffle and Recall game falls into the moderately effective category (56%-75%).

The effectiveness of the Shuffle and Recall game in improving Arabic vocabulary mastery can be explained through several theoretical perspectives. First, from the perspective of game-based learning theory, this game is able to create engagement or active involvement of students in the learning process. According to Rizki et al., (2024), good educational games can facilitate active learning and increase learning motivation. In the Shuffle and Recall game, students are not only passive recipients of information, but are actively involved in the process of memorizing, recalling, and verifying the vocabulary they have learned.

Second, from a cognitive theory perspective, the Shuffle and Recall game trains students' short-term and long-term memory through the mechanisms of repetition and retrieval practice. Research in cognitive psychology shows that retrieval practice is one of the most effective learning strategies for improving long-term memory retention (Roediger and Butler, 2011). In this game, students must recall memorized vocabulary within a limited time, which encourages the strengthening of neural connections in the brain related to that vocabulary.

Third, from a learning motivation perspective, the Shuffle and Recall game creates a healthy competitive atmosphere among groups of students. According to Li et al., (2024) self-determination theory, healthy competition can increase students' intrinsic motivation by fulfilling their basic psychological needs for competence and autonomy. In this study, students showed high enthusiasm while participating in the game, as reflected in field observations that showed active participation and a positive competitive spirit.

Fourth, the Shuffle and Recall game also facilitates cooperative learning through group work. Dividing students into small, heterogeneous groups encourages them to help each other and share strategies for memorizing and recalling vocabulary. This is in line with cooperative learning theory, which emphasizes the importance of social interaction in the learning process (Slavin, 1982).

The results of this study are in line with previous studies that show the effectiveness of using games in Arabic vocabulary learning. Research by Albantani & Ardiansyah, (2025); Lukman et al., (2025).; Siregar et al., (2025) shows that learning that integrates game elements makes students more active and able to understand the material more easily. Similarly, research by Sri et al., (2024) proves that educational games are effective in improving vocabulary memorization skills.

However, this study has several unique features compared to previous studies. First, the Shuffle and Recall game combines three systematic learning stages (memorization, recall, and verification) that are not found in other educational games. Second, the shuffling and

recall mechanisms in this game are specifically designed to train students' memory and response speed.

This study also found several limitations in the application of the Shuffle and Recall game. First, not all students have the same memorization abilities, so some students with lower memory abilities may feel stressed or less confident during the game. To overcome this, teachers need to provide additional support and adjust the difficulty level of the game to the students' abilities. Second, this game requires a considerable amount of preparation time, especially in making vocabulary cards and dividing groups. Therefore, teachers need to plan their lessons carefully so that time can be used efficiently.

The findings in this study have important practical implications for Arabic language learning in schools. First, the Shuffle and Recall game can be used as an effective alternative learning method to improve students' vocabulary mastery, especially in a learning context that tends to be monotonous and uninteresting. Second, this game can be easily adapted to various levels of difficulty and vocabulary themes, so it can be used for various levels of education.

CONCLUSION

The study conclusively establishes the effectiveness of the Shuffle and Recall game in significantly enhancing Arabic vocabulary mastery among tenth-grade students, evidenced by the statistically significant difference in posttest scores between the experimental and control groups and a higher N-Gain score, which validates the integration of gamified learning over conventional methods. This research offers a dual contribution: theoretically, it enriches the pedagogical model by providing empirical evidence for the efficacy of structured digital games that incorporate retrieval practice to overcome the challenges of passive learning; and practically, it provides a strong rationale for educators to adopt such interactive tools to boost student motivation and vocabulary retention. Based on these successful findings, it is recommended that Arabic language teachers actively integrate the Shuffle and Recall game into their regular instruction, that school administrators ensure adequate technical infrastructure to support the use of educational technology, and that future researchers investigate the long-term impact of this game on student retention across different grade levels and other specific language skills.).

REFERENCES

- Agnes, D. (2024). Redefining the Association Between Memory , Mnemonics and Vocabulary Acquisition — Reviewing Paradigms in Research. *Journal of Language Teaching and Research*, 15(3), 697–706.
- Albantani, A. M., & Ardiansyah, A. A. (2025). Deep Learning Framework for Arabic Course in Higher Education. *Al-Ta ' Rib*, 13(1), 1–18.
- Alqurashi, N. (2025). *Enhancing Language Acquisition : Integrating Traditional and Digital Methods for Learner Engagement*. 41–57.
<https://doi.org/10.19044/esj.2024.v21n2p41>
- Alshabeb, A. M. (2024). *Learning Vocabulary via Video Games: A Case Study of Saudi University Students*. 15(3), 321–332.
- Arikunto, S. (2016). *Prosedur Penelitian: Suatu Pendekatan Praktik*. PT Rineka Cipta.
- Asher, M. W., & Harackiewicz, J. M. (2024). Using Choice and Utility Value to Promote Interest: Stimulating Situational Interest in a Lesson and Fostering the Development of Interest in Statistics. *Journal of Educational Psychology*.

- Daud, W. A. A. W., & Mohammad Taufiq Abdul Ghani, N. A. B. Z. (2024). *Student ' s Perceptions Towards Learning Arabic Language Through Digital Game*. *Ijaz Arabi Journal of Arabic Learning*, 7(3), 881–892.
- Devitriana, A. (2025). *Engaging Interactive Kahoot Application for Vocabulary Mastery and Students ' Motivation*. 9(1), 18–33.
- Istiqomah, S. N., & Sopian, A. (2025). *Deep Learning Approach for Arabic Vocabulary Mastery in the Digital Era*. 6(1), 97–115. <https://doi.org/10.37680/aphorisme.v6i1.7183>
- Lazuardi, A. M., & Syaheed, S. M. (2025). *Enhancing Arabic Language Proficiency through Interactive Learning Programs*. 04(02). <https://doi.org/10.38073/lahjatuna.v4i2.2584>
- Li, L., Foon, K., & Jiahui, H. (2024). Gamification enhances student intrinsic motivation , perceptions of autonomy and relatedness , but minimal impact on competency : a meta - analysis and systematic review. In *Educational technology research and development* (Vol. 72, Issue 2). Springer US. <https://doi.org/10.1007/s11423-023-10337-7>
- Liat, E., & Hayak, M. (2024). *The integration of digital games into teaching and learning — A unique constructivist framework*. December, 1–21. <https://doi.org/10.1111/bjet.13555>
- Lukman, M., Hakim, A., Noor, B., Zamri, M., & Abdul, B. (n.d.). *Perception and Evaluation of the Effectiveness of a Mobile Application for an Educational Arabic Charade Game in Acquiring Arabic Skills*. 7(2), 766–775.
- Meilizia, D. R., & Yul, W. (2025). Immersive Learning through Audio-Visual Media : Reconstructing Arabic Language Teaching for the Digital Generation. *Jurnal Pendidikan Bahasa Dan Sastra Arab*, 8, 319–335. <https://doi.org/10.36915/la.v1i2.17.7>
- Rezai, A., Ahmadi, R., Ashkani, P., & Hossein, G. (2025). Implementing active learning approach to promote motivation , reduce anxiety , and shape positive attitudes : A case study of EFL learners. *Acta Psychologica*, 253(January), 104704. <https://doi.org/10.1016/j.actpsy.2025.104704>
- Rizki, I. A., Suprpto, N., Saphira, H. V, Alfarizy, Y., Ramadani, R., & Dwi, A. (2024). *Cooperative model , digital game , and augmented reality- based learning to enhance students ' critical thinking skills and learning motivation*. 8(1), 339–355.
- Siregar, S. M., Adelina, H., & Zahra, H. (2025). *Games in Arabic for Early Childhood : A Literature Study*. 14(1), 43–67.
- Slavin, R. E. (1982). Cooperative Learning: Student Teams. What Research Says to the Teacher. In *National Education Association*.
- Sri Zulfida, Zainal Rafli, Fathiaty Murtadho, M. S. I. (2024). Arabic Vocabulary Learning Strategies in Early Childhood: A Case Study at an Integrated Islamic Elementary School. *An Nabighoh*, 26(2), 269–286.
- Sugiyono. (2023). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Utami, A. D. (2025). *Optimizing Students ' Interest in Learning and Mastery of Arabic Vocabulary Through the Use of Interactive Games Gimkit*. 11(1), 1047–1058.