

Improving Arabic Vocabulary Mastery of Fourth-Grade Madrasah Ibtidaiyah Students Through Giant Snakes and Ladders Media

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ABSTRACT

Arabic vocabulary mastery among fourth-grade students at Madrasah Ibtidaiyah Datok Sulaiman Putra Palopo remained low because instruction was dominated by lectures, question-and-answer sessions, and rote memorization with little active student involvement. This study aimed to describe the implementation of giant snakes and ladders media and to examine its effectiveness in improving students' Arabic vocabulary mastery. Classroom action research was employed using the Kemmis and McTaggart spiral model, conducted in two cycles, each comprising planning, action, observation, and reflection. The subjects were 20 fourth-grade students, and the collaborating Arabic teacher served as observer. Data were collected through a ten-item multiple-choice vocabulary test on the theme of professions, observation sheets, and documentation, and were analyzed descriptively using mean scores, classical mastery percentages against the minimum mastery criterion (KKM = 70), and normalized gain. The findings revealed a consistent improvement across cycles: the mean score rose from 39.50 in the pre-cycle to 65.00 in Cycle I and 80.50 in Cycle II, while classical mastery increased from 10% to 55% and then to 80%, exceeding the success criterion of 75%. The class-level normalized gain from pre-cycle to Cycle II reached 0.68, and 80% of students attained moderate to high individual gains. The floor-sized board, which turned students into human pawns and embedded recognition, pronunciation, and contextual vocabulary tasks into every square, created active, enjoyable, and collaborative learning, and its refinement in Cycle II (heterogeneous regrouping, vocabulary review before play, rule re-explanation, and group rewards) proved decisive. Future research is recommended to employ controlled designs with retention tests, measure productive vocabulary use, and adapt the media to other thematic units and grade levels.

Keywords: Arabic Vocabulary Mastery, Classroom Action Research, Game-Based Learning, Giant Snakes and Ladders, Madrasah Ibtidaiyah

INTRODUCTION

Arabic occupies a distinctive position in Indonesian Islamic education because it is not only a foreign language subject but also the gateway to the primary sources of Islamic teaching. In the madrasah system, Arabic is formally taught from the elementary level (Madrasah Ibtidaiyah) upward, as regulated by the curriculum of Islamic religious education and Arabic for madrasahs (Kementerian Agama Republik Indonesia, 2019). Among the components of the language, vocabulary (*mufradāt*) is the most fundamental, since the four language skills of listening, speaking, reading, and writing cannot develop without an adequate stock of words (Ṭuʿaymah, 1989; Effendy, 2012). Nation (2013) likewise emphasizes that learners need repeated, meaningful encounters with words and opportunities to retrieve them in order to move from recognizing a word's form to understanding and using its meaning. For young

learners, therefore, the way vocabulary is introduced and practiced determines whether Arabic is perceived as an enjoyable language or as a list of words to be memorized.

Children at the elementary level learn most effectively through play, movement, and direct experience. Pamessangi (2020) argues that the intelligence potential of young learners in Arabic is best developed through methods that match their developmental characteristics, such as role play, storytelling, and games. Learning media play a central role in this regard, because media convey messages from teacher to learner in a more concrete form, reduce verbalism, and stimulate attention and motivation (Arsyad, 2021; Daniyati et al., 2023). The selection of media must nevertheless consider its fit with learning objectives, content, ease of use, cost, and the learners' developmental stage (Zahwa & Syafi'i, 2022). Studies in Arabic classrooms have shown that visual media such as pictures (Sholihah, 2018), simulation-based methods (Mawardi et al., 2022), and structured visual organizers such as mind mapping (Nurmiati, 2020) help learners understand and retain Arabic content better than purely verbal instruction.

However, the reality in the field indicates that Arabic vocabulary instruction at the elementary level is still largely teacher-centered. Preliminary observations conducted in the fourth grade of Madrasah Ibtidaiyah (MI) Datok Sulaiman Putra Palopo showed that the teacher relied mainly on lectures, question-and-answer sessions, and assignments to memorize word lists, so that learning proceeded in one direction. Students tended to memorize words without understanding their meaning or how they are used in sentences, and the limited variety of media made the lessons monotonous and lowered students' interest in Arabic. These conditions were reflected in the pre-cycle vocabulary test, in which the class mean was only 39.50 and only 2 of 20 students (10%) reached the minimum mastery criterion (*Kriteria Ketuntasan Minimal*, KKM) of 70. The observations also revealed that students displayed markedly higher enthusiasm when lessons involved games and physical activity, which indicated that a play-based and movement-based medium could address the problem.

One medium that fits these characteristics is the snakes and ladders game. Snakes and ladders is a traditional board game in which players roll a die to move their pawns across numbered squares, climbing ladders and sliding down snakes on the way to the final square. When its squares are filled with learning content, the game becomes an educational medium that allows students to learn while playing, to learn in groups rather than alone, to be helped by pictures on the board, and to use a medium that is inexpensive to produce (Wati, 2021; Zuhriyah, 2020). Previous studies have reported that snakes and ladders media improve conceptual understanding in science (Andriyani et al., 2023), learning outcomes and motivation in social studies (Zuhriyah, 2020), and even moral competence in early childhood (Setiawati et al., 2019). In Arabic learning, snakes and ladders has been used to improve the vocabulary mastery of MI students through three action cycles (Rizqi, 2015), to raise vocabulary scores in a quasi-experimental comparison (Nuha & Chasanah, 2022), to teach thematic vocabulary (Lailaa et al., 2025), and to make morphological (*taṣrīf*) drills more engaging (Maturedy et al., 2025). It has also been developed as a validated vocabulary medium for junior high school students (Pulangsih & Arifin, 2025).

Nevertheless, a closer examination of these studies reveals several limitations. First, almost all of them used a conventional table-top board made of paper, which students play while seated, so that the kinesthetic potential of the game remains unexploited even though

elementary pupils learn best through whole-body involvement. Research on embodied learning has shown that integrating physical activity with vocabulary tasks improves young learners' foreign language vocabulary learning (Mavilidi et al., 2015; Toumpaniari et al., 2015; Macedonia, 2014), yet this principle has rarely been operationalized in Arabic vocabulary media for madrasah pupils. Second, several studies were development studies that stopped at expert validation and student responses, or experiments that reported end results without describing how the medium was refined in the classroom. Third, the squares of most boards contained only question-and-answer items, whereas vocabulary knowledge also involves pronouncing words correctly and relating them to their contexts of use (Nation, 2013). Consequently, there is still limited evidence on how a floor-sized, movement-based version of snakes and ladders, whose squares integrate recognition, pronunciation, and contextual tasks, is implemented and refined across action cycles in an MI classroom.

Considering these gaps, this study offers a giant snakes and ladders medium printed on a large floor banner, on which students act as human pawns and must complete a vocabulary task on every square they land on. The medium was implemented through classroom action research, allowing the researchers not only to measure improvement but also to document how the procedure was refined from one cycle to the next. Accordingly, this study aims (1) to describe the implementation of giant snakes and ladders media in Arabic vocabulary learning in the fourth grade of MI Datok Sulaiman Putra Palopo, and (2) to examine its effectiveness in improving students' Arabic vocabulary mastery. Based on the framework above, the following action hypothesis is proposed:

If giant snakes and ladders media are applied in Arabic vocabulary learning through well-planned and reflected action cycles, the Arabic vocabulary mastery of fourth-grade students of MI Datok Sulaiman Putra Palopo will improve until at least 75% of students reach the minimum mastery criterion (score ≥ 70).

METHODS OF RESEARCH

This study employed classroom action research (CAR) with a collaborative approach, because the problem originated from daily classroom practice and the aim was to improve the learning process and its outcomes directly in the classroom. The design followed the spiral model of Kemmis and McTaggart, in which each cycle consists of four interrelated stages: planning, action, observation, and reflection, and the results of reflection become the basis for planning the next cycle (Kemmis et al., 2014). The model was chosen because it accommodates repeated improvement until the success criteria are achieved, which suited the need to adjust the use of a new medium to the characteristics of the students. In this collaborative arrangement, the second author acted as the teacher who implemented the actions, while the Arabic teacher of the madrasah served as the collaborator and observer. The study was planned for two cycles and was to be continued to a further cycle if the success criteria were not yet met.

The study was conducted at MI Datok Sulaiman Putra Palopo, a private madrasah under the Ministry of Religious Affairs located on Jalan Dr. Ratulangi, Balandai Subdistrict, Bara District, Palopo City, South Sulawesi, Indonesia. The madrasah was established in 1997, is accredited B, and has 15 classes. The subjects were all 20 students of one fourth-grade class in

the 2024/2025 academic year. The class was selected because the preliminary observation and the pre-cycle test identified low vocabulary mastery in this class, and because the collaborating teacher taught Arabic in it. The research activities, from preliminary observation to reporting, lasted from January 2025 to April 2025, while the classroom actions were carried out in February 2025. The pre-cycle test and orientation were given on 6 February 2025, Cycle I was implemented on 13 February 2025, and Cycle II was implemented in two meetings on 20 and 27 February 2025, each with an allocation of 2×45 minutes. The learning material was the theme of professions (*al-mihnah*), which is part of the fourth-grade Arabic content.

The main medium was a giant snakes and ladders board consisting of 89 numbered squares plus a finish square, arranged in a 9×10 grid and printed on a vinyl banner large enough to be laid on the classroom floor (Figure 1). Instead of moving small pawns, students stood on the banner and moved their own bodies along the squares according to the number shown on a large die. The squares contained five types of tasks: (1) meaning-recognition questions (e.g., *What is the meaning of طَبِيبٌ?*); (2) Arabic-naming questions (e.g., *What is the Arabic word for teacher?*); (3) true-or-false and picture-word matching items (e.g., a picture of a flight attendant labelled مُضَيِّفٌ); (4) oral production tasks (e.g., *Say مُحَاسِبٌ five times*, or *Mention one profession in Arabic*); and (5) movement or affective commands (e.g., *move forward two squares*, *jump*, *say Alhamdulillah or istighfar*, or *sit down on the اجْلِسْ squares*). The target vocabulary covered professions and workplaces such as مُدَرِّسٌ (teacher), طَبِيبٌ (doctor), مُمَرِّضٌ (nurse), طَيَّارٌ (pilot), مُضَيِّفٌ (flight attendant), مُوَظَّفٌ (employee), صَحَافِيٌّ (journalist), مُحَاسِبٌ (accountant), مُهَنْدِسٌ (engineer/architect), فَلاَحٌ (farmer), مُدِيرٌ (director), مُسْتَشْفَى (hospital), and مَكْتَبٌ (office).



Figure 1 Design of the Giant Snakes and Ladders Board on the Theme of Professions

The rules of play were explained before each game so that students understood the mechanism and could participate in an orderly manner: (1) the teacher divided students into groups of five to six; (2) all players started from square 1; (3) the first player was determined by *hompimpa* or *suit*; (4) players took turns rolling the die and moved forward according to the number rolled; (5) a player who landed at the foot of a ladder moved directly to its top, whereas a player who landed on the head of a snake moved directly to its tail; (6) each player had a maximum of 30 seconds to complete the task on the square; (7) a player who answered correctly stayed on the square and the game continued; (8) if the answer was incorrect, the teacher gave another group the chance to answer or provided corrective feedback; and (9) the first player to reach the final square was declared the winner.

Data were collected using three techniques. First, a vocabulary test was administered at the pre-cycle stage and at the end of each cycle. The test consisted of ten multiple-choice items with three options, developed together with the collaborating Arabic teacher based on the fourth-grade material. The items measured two indicators of vocabulary mastery, namely understanding the meaning of words and relating words to their context (for instance, identifying a profession from its description, its picture, or its workplace). Each correct answer scored 10, giving a score range of 0 to 100; the test forms at each stage were parallel, with the order of items changed and several items replaced by equivalent ones. Second, observation sheets for teacher and student activities were used to record the implementation of the lesson steps and students' involvement, including activeness, participation in the game, enthusiasm

in answering, discipline, and readiness to take the test, supplemented by field notes. Third, documentation in the form of lesson plans, test sheets, photographs of the learning process, and the design of the media was collected to complement the other data.

The data were analyzed using descriptive quantitative and qualitative techniques. The test scores were summarized as the mean, median, standard deviation, minimum, and maximum at each stage. Individual mastery was determined by the KKM of 70, and classical mastery was calculated as the percentage of students who reached the KKM, $P = (F/N) \times 100\%$, where F is the number of students who reached mastery and N is the total number of students. Individual scores were also categorized as excellent (91–100), very good (81–90), good (71–80), fair (61–70), poor (51–60), or very poor (0–50). To describe the magnitude of improvement, the normalized gain was computed using Hake's formula and categorized as high ($g > 0.7$), moderate ($0.3 \leq g \leq 0.7$), or low ($g < 0.3$) (Hake, 1998). Observation data and field notes were analyzed qualitatively by reducing, displaying, and interpreting the recorded activities in each cycle. The action was declared successful if at least 75% of the students reached a score of ≥ 70 and the observed learning activities improved from Cycle I to Cycle II.

RESULTS AND DISCUSSION

RESULTS

Pre-Cycle Condition

Before the actions were implemented, the students' initial Arabic vocabulary mastery was measured through a pre-cycle test on the profession theme. The results showed that the class mean was only 39.50 with a median of 40, and the scores ranged widely from 10 to 80 ($SD = 19.86$). Only 2 of 20 students (10%) reached the KKM, while 18 students (90%) had not. As shown in Table 2, 16 students (80%) were in the very poor category and none reached the very good or excellent categories. Analysis of the answers indicated that most students had difficulty both in recognizing the meaning of Arabic words and in relating the words to the context described in the items, for example connecting مُسْتَشْفَى with the workplace of a doctor.

These data confirmed that the students' vocabulary mastery was low and that the conventional instruction used so far had not been effective, so that actions using giant snakes and ladders media were needed.

Implementation of Cycle I

In the planning stage of Cycle I, the researchers prepared a lesson plan on the profession theme, the giant snakes and ladders banner, a large die, question and task content for the squares, the Cycle I test, observation sheets for teacher and student activities, and field note sheets. The action stage began on 6 February 2025 with an orientation meeting in which the teacher introduced herself, reviewed previously learned material, explained the learning objectives, introduced the profession vocabulary, administered the pre-cycle test, and asked the students to study the vocabulary at home. On 13 February 2025, the lesson opened with greetings, a prayer led by the class leader, attendance, and apperception reviewing the vocabulary. The students were then divided into groups, the rules of play were explained, and the game was played in turns on the banner. During the game, the teacher guided and

supervised the activity so that it remained orderly. At the end of the meeting, the Cycle I test was administered, and the lesson was closed with a summary and final greetings.

Observation during Cycle I showed that most students were active and enthusiastic. They stepped on the banner eagerly, tried hard to recall the words, and competed to answer the tasks on the squares, so that the atmosphere became more enjoyable than in previous lessons. However, several weaknesses were recorded. Some students were not yet familiar with the rules and the flow of the game, so that part of the time was spent on clarifying the procedure, and not all students were equally involved when it was not their group's turn. On the cognitive side, several students still chose incorrect meanings for the target words, and some had difficulty understanding what the context-based items were asking.

The results of the Cycle I test showed a substantial improvement. The class mean rose from 39.50 to 65.00 (an increase of 25.50 points), the median rose to 70, and the lowest score rose from 10 to 40. All 20 students obtained higher scores than in the pre-cycle test. The number of students reaching the KKM increased to 11 (55%), while 9 students (45%) had not yet reached it. The standard deviation decreased from 19.86 to 14.69, indicating that the students' scores became more homogeneous. Nevertheless, classical mastery (55%) was still below the success criterion of 75%, so that the study was continued to Cycle II.

Reflection on Cycle I identified four points for improvement: (1) the rules of play needed to be re-explained and modelled before the game started; (2) the vocabulary needed to be reviewed through reading and recalling activities before the game so that students entered the game with sufficient initial knowledge; (3) the groups needed to be reorganized into more balanced groups so that low-achieving students were supported by their peers; and (4) extrinsic motivation needed to be strengthened, for example by announcing a reward for the winning group, while ensuring sufficient time so that every group received a turn.

Implementation of Cycle II

Cycle II was implemented in two meetings based on the reflection results. On 20 January 2025, the lesson opened with a prayer and attendance, followed by apperception and a question-and-answer review of the profession vocabulary in which students actively mentioned the words they had learned. The students were then regrouped into groups of five with compositions different from those in Cycle I. Before the game started, the teacher re-explained the rules and announced that the winning group would receive a reward. The students were visibly more active and enthusiastic; however, because of time limitations, several groups had not yet had their turn, so the game was continued in the next meeting. On 27 February 2025, after the review of vocabulary, the groups that had not yet played completed the game, the teacher again guided the activity, and the Cycle II test was administered individually. The lesson ended with a joint conclusion, a brief reflection on the use of the medium, motivation, and closing greetings.

Observation in Cycle II showed better learning conditions than in Cycle I. The students understood the rules, followed the game in an orderly manner, and answered the vocabulary tasks more quickly and accurately. Students who were waiting for their turn followed the game attentively because the answers of other players could be used when the question was passed to their group. The students also appeared calmer and more confident when working on the

test. The teacher's activities were carried out according to the lesson plan, including the vocabulary review, the re-explanation of rules, and the provision of rewards and feedback.

The Cycle II test results showed a further improvement. The class mean increased from 65.00 to 80.50 (an increase of 15.50 points), the median reached 80, and the maximum score reached 100. Sixteen of the 20 students (80%) reached the KKM, while four students (20%) had not yet reached it. With classical mastery of 80%, the success criterion of at least 75% was achieved, and the study was therefore concluded in Cycle II. The descriptive statistics for all stages are presented in Table 1.

Table 1 Descriptive Statistics of Arabic Vocabulary Mastery Scores per Stage

Stage	N	Mean	Median	SD	Min	Max	Mastered (≥ 70)
Pre-cycle	20	39.50	40	19.86	10	80	2 (10%)
Cycle I	20	65.00	70	14.69	40	90	11 (55%)
Cycle II	20	80.50	80	18.20	40	100	16 (80%)

The distribution of students across score categories (Table 2) shows a clear upward shift. In the pre-cycle, the scores were concentrated in the very poor category (80%). In Cycle I, the very poor category decreased to 30%, and the scores spread into the fair (25%) and good (25%) categories. In Cycle II, the largest group of students was in the excellent category (30%), and 65% of the students were in the good, very good, or excellent categories.

Table 2 Distribution of Students by Score Category

Category	Score Range	Pre-cycle	Cycle I	Cycle II
Excellent	91–100	0 (0%)	0 (0%)	6 (30%)
Very good	81–90	0 (0%)	1 (5%)	3 (15%)
Good	71–80	1 (5%)	5 (25%)	4 (20%)
Fair	61–70	1 (5%)	5 (25%)	3 (15%)
Poor	51–60	2 (10%)	3 (15%)	2 (10%)
Very poor	0–50	16 (80%)	6 (30%)	2 (10%)

The standard deviation increased again in Cycle II (18.20) because a large proportion of students reached very high scores (six students obtained 100), while a small number of students remained low. At the individual level, 15 students improved from Cycle I to Cycle II, two students maintained their scores, and three students obtained lower scores than in Cycle I. Compared with the pre-cycle, however, no student obtained a lower score in Cycle II: 18 students improved and two students remained at their initial level.

Magnitude of Improvement (N-Gain)

To describe the magnitude of improvement more objectively, the normalized gain was calculated. At the class level, the gain from the pre-cycle to Cycle I was 0.43, and the gain from Cycle I to Cycle II was also 0.43, both in the moderate category. Cumulatively, the gain from the pre-cycle to Cycle II reached 0.68, which is at the upper boundary of the moderate category and close to the high threshold. This means that, on average, the students closed approximately two-thirds of the gap between their initial scores and the maximum score. The distribution of individual gains is presented in Table 3.

Table 3 Distribution of Individual N-Gain Categories (Pre-cycle to Cycle II)

Category	Criterion	Number of Students	Percentage
High	$g > 0.7$	11	55%
Moderate	$0.3 \leq g \leq 0.7$	5	25%
Low	$g < 0.3$	4	20%
Total		20	100%

More than half of the students (55%) achieved high gains, and six students reached the maximum gain ($g = 1.00$) because they obtained a perfect score in Cycle II. Together with the moderate category, 80% of the students experienced a moderate to high improvement. The remaining four students (20%) showed low gains; two of them obtained the same score as in the pre-cycle. The overall progress of the mean score and classical mastery across stages is illustrated in Figure 2.

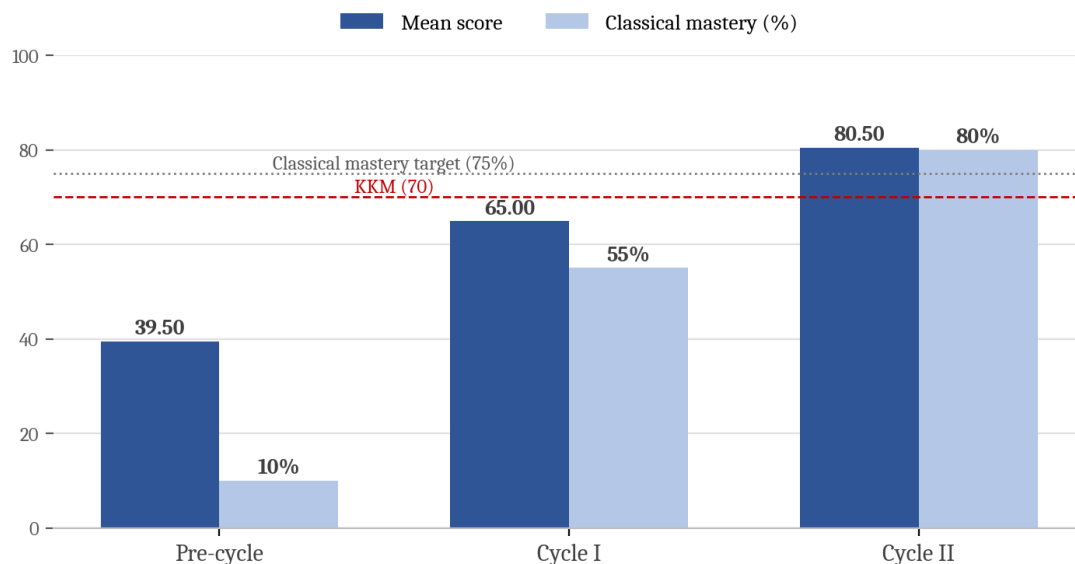


Figure 2 Mean Score and Classical Mastery of Arabic Vocabulary Across Stages

Table 4 Comparison of Classical Mastery Across Stages

Criterion	Pre-cycle	Cycle I	Cycle II
Mastered (≥ 70)	2 (10%)	11 (55%)	16 (80%)
Not yet mastered (< 70)	18 (90%)	9 (45%)	4 (20%)
Mean score	39.50	65.00	80.50
Success criterion ($\geq 75\%$)	Not achieved	Not achieved	Achieved

Table 4 shows that the proportion of students who reached mastery increased eightfold, from 10% in the pre-cycle to 80% in Cycle II, while the proportion of students who had not reached mastery decreased from 90% to 20%. Thus, the action hypothesis was accepted: the application of giant snakes and ladders media through two reflected action cycles improved the Arabic vocabulary mastery of the fourth-grade students of MI Datok Sulaiman Putra Palopo beyond the established success criterion.

DISCUSSION

The findings of this study demonstrate that giant snakes and ladders media did not merely raise test scores but changed the way the students engaged with Arabic vocabulary. The mean score more than doubled, from 39.50 to 80.50, classical mastery rose from 10% to 80%, and the cumulative normalized gain reached 0.68 within only two cycles. This improvement was accompanied by observable changes in classroom behavior: students who had previously memorized word lists passively became active participants who moved, answered, pronounced, and discussed words with their peers. These results indicate that the medium succeeded in transforming a one-directional vocabulary lesson into an interactive learning experience that suits the characteristics of elementary school children.

The most distinctive feature of the medium, and the one that distinguishes it from previous snakes and ladders studies, is its giant, floor-based format. Because the students acted as human pawns, every turn involved whole-body movement, visual attention to the board, listening to the task, and an oral or cognitive response. Within Dale's (1969) cone of experience, such participatory experience lies closer to the concrete end than verbal explanation or pictures alone, and therefore produces more durable learning. The format also aligns with Bruner's (1966) sequence of representation: students first encountered the words enactively by moving and acting on the board, then iconically through the pictures on the squares, and finally symbolically through the written Arabic forms. Research on embodied learning supports this interpretation, since physical activity and gestures that are integrated with the learning task improve young learners' foreign language vocabulary learning more than seated instruction (Mavilidi et al., 2015; Toumpaniari et al., 2015), and sensorimotor involvement enriches the memory traces of new words (Macedonia, 2014). In this sense, the giant format is not merely a larger version of the board but a pedagogical choice that activates the kinesthetic channel that is largely absent in conventional vocabulary instruction.

The improvement can also be explained by the design of the tasks on the squares. According to Nation (2013), vocabulary learning is strengthened when learners repeatedly retrieve the form and meaning of words and encounter them in varied contexts. The squares of the board required exactly these processes: students had to recall the meaning of a word, produce the Arabic word for a meaning, match words with pictures, relate professions to their workplaces, and pronounce words aloud several times. Because the same words appeared on different squares and in different task types, each game provided dozens of retrieval opportunities for the whole class, including for students who were only observing other players. This explains why the improvement occurred on both indicators measured by the test, namely understanding word meaning and relating words to their context, which in the pre-cycle were the main sources of error.

The affective dimension of the game also contributed substantially. The element of chance (the die, ladders, and snakes), the competition between groups, and the humorous commands on the squares created an enjoyable atmosphere in which mistakes were not perceived as failures. Such a low-anxiety environment lowers what Krashen (1982) calls the affective filter, allowing input to be processed more effectively. This finding is in line with meta-analytic evidence that game-based vocabulary learning produces better outcomes than non-game instruction (Chen et al., 2018; Tsai & Tsai, 2018) and with reviews showing that game

elements increase learners' motivation and engagement (Hung et al., 2018; Zhang & Hasim, 2023). Saleh and Althaqafi (2022) similarly found that educational games significantly enhanced the vocabulary acquisition and retention of Arab young children compared with repetition-based instruction. The integration of religious expressions such as *Alhamdulillah*, *istighfar*, and شُكْر into the squares further linked vocabulary learning to the Islamic character of the madrasah.

The comparison between the two cycles highlights the importance of the reflective process in CAR. In Cycle I, the medium already produced a large improvement, but the unfamiliarity of the students with the rules, the uneven involvement of students outside their turn, and insufficient initial knowledge of the words limited its effect. The changes introduced in Cycle II, namely the vocabulary review before play, the re-explanation of rules, heterogeneous regrouping, and group rewards, addressed these problems directly and raised classical mastery from 55% to 80%. Reviewing vocabulary before the game ensured that the game functioned as retrieval practice rather than as a guessing activity, while heterogeneous groups allowed stronger students to support weaker peers. This pattern shows that the effectiveness of a game-based medium depends not only on the medium itself but also on the instructional scaffolding that surrounds it, as also emphasized in reviews of gamified language instruction (Zhang & Hasim, 2023).

These results are consistent with previous studies on snakes and ladders in Arabic learning. Rizqi (2015) reported that the mean vocabulary score of fourth-grade MI students rose from 51.7 to 77.2 over three cycles, and Nuha and Chasanah (2022) found higher vocabulary scores in the class taught with snakes and ladders than in the control class. Lailaa et al. (2025) and Pulangsih and Arifin (2025) likewise showed that thematic snakes and ladders media are effective and feasible for vocabulary learning. The present study extends these findings in two ways. First, it demonstrates that a floor-sized, movement-based version of the game can reach the success criterion within two cycles from a much lower starting point (mean 39.50). Second, it documents the specific procedural refinements that made the medium work in a real MI classroom, which can serve as practical guidance for teachers. The findings also support the view that innovative media are needed to make Arabic learning in madrasahs more engaging (Mawardi et al., 2022; Nurmiati, 2020).

Nevertheless, the results also reveal that the medium did not benefit all students equally. Four students (20%) had not reached the KKM in Cycle II, and three students obtained lower scores in Cycle II than in Cycle I. The widening of the standard deviation in Cycle II indicates that while most students responded very positively, a small group needed additional support. In a game, the time a student spends on active retrieval depends partly on the luck of the die and on the number of turns, so students who land on fewer task squares or who rely on their group members may receive less practice. This observation suggests that teachers should combine the game with differentiated follow-up, for instance short individual review cards or peer tutoring for students with low gains, and should ensure that every student answers a minimum number of tasks during the game.

This study has several limitations that must be acknowledged. First, it involved a single class of 20 students without a control group, so that the improvement cannot be attributed exclusively to the medium and may partly reflect repeated testing, maturation, or a novelty

effect. Second, the action period was short (four meetings in one month), and the retention of vocabulary after the actions was not measured. Third, the ten-item multiple-choice test mainly measured receptive knowledge of meaning and context, and did not measure the productive use of the words in speaking or writing, even though the game involved oral production. Fourth, the second author acted as both teacher and researcher, and the observation data were mainly qualitative, which may introduce subjectivity despite the involvement of the collaborating teacher. Future research is recommended to use quasi-experimental or experimental designs with control classes and delayed retention tests, to develop instruments that also assess productive vocabulary and are validated statistically, to explore moderating variables such as learning styles and initial ability, and to adapt the giant snakes and ladders media to other thematic units and grade levels, including through digital or hybrid versions.

CONCLUSIONS

This study aimed to describe the implementation of giant snakes and ladders media and to examine its effectiveness in improving the Arabic vocabulary mastery of fourth-grade students of MI Datok Sulaiman Putra Palopo. The medium was implemented through two classroom action research cycles in which students, divided into groups, acted as human pawns on a floor-sized board and completed recognition, pronunciation, and contextual vocabulary tasks on each square they landed on; the refinement of Cycle II through vocabulary review before play, re-explanation of rules, heterogeneous regrouping, and group rewards proved decisive. The results demonstrated a consistent and substantial improvement, with the mean score increasing from 39.50 in the pre-cycle to 65.00 in Cycle I and 80.50 in Cycle II, classical mastery rising from 10% to 55% and 80%, which exceeded the success criterion of 75%, and a cumulative normalized gain of 0.68, confirming that the kinesthetic, game-based, and collaborative character of the medium makes Arabic vocabulary learning more active, enjoyable, and effective for elementary madrasah students. Nevertheless, this study was limited to a single class without a control group, a short action period, a test that mainly measured receptive knowledge, and largely qualitative observation data, and 20% of the students still required further support. Future research is recommended to employ controlled designs with retention tests, to assess productive vocabulary use with validated instruments, to examine differentiated support for low-gain students, and to adapt the media to other thematic units, grade levels, and digital formats.

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