What Is the Arabic Verb for…? Guessing-Based Learning and Verb Retention among Malaysian Learners

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Abstract

Arabic language education in Malaysia continues to develop in response to increasing demands for communicative competence and access to Islamic knowledge. However, many learners still struggle to recall basic Arabic verbs during spontaneous communication despite years of instruction. This study examines the effectiveness of guessing-based learning in improving Arabic verb retention among Malaysian learners. A classroom-based quasi-experimental mixed-methods design was employed, involving an experimental group exposed to structured guessing activities and a comparison group receiving conventional instruction. Quantitative data were collected through pre-tests and post-tests, while qualitative data were obtained from classroom observations and interviews. The findings reveal a statistically significant improvement in verb retention in the experimental group (p = .034, Cohen's d = 0.38), whereas the comparison group showed no significant change. Qualitative results indicate increased learner attention, confidence, and engagement during learning activities. These findings suggest that guessing-based learning strengthens verb retention by activating cognitive effort and retrieval processes. This study concludes that guessing-based learning offers a practical and low-cost instructional strategy to support Arabic vocabulary acquisition and communicative competence in Malaysian Arabic education.

Kata kunci:
Pembelajaran berbasis tebakan;
Pendidikan bahasa Arab di Malaysia;
Pemerolehan kosakata;
Retensi kata kerja bahasa Arab.

Abstrak

Pendidikan bahasa Arab di Malaysia terus berkembang seiring meningkatnya tuntutan kompetensi komunikatif dan akses terhadap ilmu keislaman. Namun, banyak pelajar masih mengalami kesulitan dalam mengingat kata kerja bahasa Arab secara spontan meskipun telah mempelajarinya dalam jangka waktu yang lama. Penelitian ini bertujuan untuk menguji efektivitas pembelajaran berbasis tebakan (guessing-based learning) dalam meningkatkan retensi kata kerja bahasa Arab pada pelajar di Malaysia. Penelitian ini menggunakan desain quasi-eksperimental berbasis kelas dengan pendekatan mixed-methods, yang melibatkan kelompok eksperimen dan kelompok pembanding. Data kuantitatif diperoleh melalui tes awal dan tes akhir, sedangkan data kualitatif dikumpulkan melalui observasi kelas dan wawancara. Hasil penelitian menunjukkan adanya peningkatan yang

signifikan secara statistik pada kelompok eksperimen (p = 0,034; Cohen's d = 0,38), sementara kelompok pembanding tidak menunjukkan perubahan yang berarti. Temuan kualitatif mengungkapkan peningkatan perhatian, kepercayaan diri, dan keterlibatan siswa dalam proses pembelajaran. Temuan ini menunjukkan bahwa pembelajaran berbasis tebakan efektif dalam memperkuat retensi kosakata melalui aktivasi kognitif dan proses penarikan kembali informasi. Penelitian ini menyimpulkan bahwa strategi pembelajaran berbasis tebakan merupakan pendekatan yang praktis dan berbiaya rendah untuk mendukung pemerolehan kosakata dan kompetensi komunikatif bahasa Arab di Malaysia.

Article Information	

INTRODUCTION

Arabic language education in Malaysia continues to evolve in response to the growing demand for communicative competence among learners in Islamic schools, colleges, and higher education institutions (Abdul Ghani et al., 2021; Abdul Wahab et al., 2021; Abdullah & Bakar, 2022; Aboudahr, 2020; Muhith & Batrisya, 2026; Siregar et al., 2025). Despite this progress, one of the most persistent challenges lies in the acquisition and long-term retention of Arabic verbs, which form the backbone of sentence construction and communicative expression (Sapawi & Yusoff, 2025; Syaheed & Salam, 2026). Verb learning is often perceived as difficult due to the language's rich morphology, complex root-pattern system, and semantic variations across contexts (Tallas-Mahajna et al., 2023). As a result, many Malaysian learners even after years of exposure struggle to recall basic verbs such as *akala* (to eat), *syariba* (to drink), or *dhahika* (to laugh) during spontaneous communication. This gap between exposure and retrieval forms the core problem motivating the present study.

From a psycholinguistic perspective, difficulties in verb retention are closely related to limited cognitive involvement during learning (Büyükyıldırım et al., 2025; Hopp et al., 2025; Huda et al., 2026; Lazuardi, 2025; Mahmudah et al., 2025; Mirzoyeva et al., 2024). According to the Involvement Load Hypothesis, vocabulary retention improves when learning tasks require higher levels of need, search, and evaluation, thereby increasing cognitive investment (Gui & Ismail, 2024; Hazrat & Read, 2022; Hopp et al., 2025; Pouresmaeil & Vali, 2023; Skulmowski & Xu, 2022). Guessing-based activities naturally generate such involvement, as learners are required to predict,

retrieve, and evaluate lexical items rather than merely recognize them (Son et al., 2022). Similarly, the Noticing Hypothesis posits that linguistic forms must be consciously attended to in order to be acquired (Godfroid, 2022; Pouresmaeil & Vali, 2023; Szcześniak, 2024; Tilahun et al., 2022). Guessing tasks heighten learners' awareness of lexical gaps by creating moments of uncertainty, which prompt focused attention on verb forms and meanings. Through this process, guessing-based learning transforms passive exposure into active cognitive engagement, strengthening memory consolidation and long-term retention of Arabic verbs (Lo, 2024).

Beyond its communicative function, Arabic occupies a central position as a gateway to Islamic scholarship, intellectual heritage, and religious sciences, where mastery of language is inseparable from access to knowledge. Arabic is not merely a subject of study but a medium through which classical texts, theological discourse, and contemporary Islamic thought are transmitted. In this context, vocabulary mastery particularly of verbs (af'āl) plays a strategic role in expanding learners' lexical repertoire (Baharun, 2025; Baharun & Hanifansyah, 2024; Masnun et al., 2024). Verbs serve as the core engine of meaning in sentences and enable learners to generate new expressions, construct ideas, and decode texts more efficiently. The ability to command a wide range of verbs facilitates faster vocabulary growth, as verbs create semantic networks that connect objects, actions, and contexts. Consequently, strengthening verb acquisition is not simply a linguistic objective but an intellectual investment, enabling learners to broaden their understanding of Arabic texts and to access knowledge with greater depth and autonomy. Thus, improving verb retention directly enhances learners' capacity to navigate Arabic as a language of knowledge, reinforcing its role as a cognitive gateway to scholarship and cultural literacy (Hanifansyah et al., 2025).

Within the Malaysian Arabic curriculum, instruction often emphasizes grammatical explanation, text comprehension, and examination-oriented outcomes, while opportunities for active lexical retrieval remain limited. Verbs are frequently introduced through lists, translations, or sentence models, but are rarely recycled through tasks that require spontaneous recall. As a result, learners may demonstrate recognition of verb forms in written assessments yet struggle to retrieve them during oral communication. This curricular orientation contributes to a discrepancy between receptive knowledge and productive use, making verb retention a critical pedagogical issue. Strengthening

verb recall is therefore essential not only for communicative competence but also for enabling learners to access Arabic texts more autonomously within both academic and religious domains (Lina et al., 2025).

Recent research in Arabic language education has increasingly emphasized the integration of psycholinguistic principles, communicative methodologies, and innovative media to enhance vocabulary acquisition and speaking performance. One strand of research has explored how visual and narrative support contributes to language learning. Mahmudah et al. (2024) demonstrated that the use of comic strips significantly improves learners' speaking proficiency by strengthening vocabulary retention, structural awareness, and learner confidence through contextual scaffolding. Their findings indicate that visual narratives do more than merely assist comprehension; they stimulate deeper cognitive engagement that facilitates recall and internalization of linguistic forms. Similarly, communicative strategies have been shown to play a central role in vocabulary development. Hanifansyah and Mahmudah (2024), in a study conducted at Maktab Mahmud Yan, Malaysia, reported that learners experienced measurable improvement in vocabulary mastery and classroom participation when exposed to interaction-based pedagogy. Their work accentuates the importance of meaningful language use in promoting lexical growth rather than relying on traditional memorization alone.

In parallel, research on learning media has expanded the understanding of how both digital and conventional tools influence memory and retention. Solehudin et al. (2025a) revealed that the use of colourful chalk and blackboards significantly enhanced vocabulary retention and learner motivation by activating multisensory processing mechanisms. This finding challenges the assumption that digital technology is indispensable for innovation, showing instead that visually enriched traditional resources can achieve comparable pedagogical impact. Expanding the technological dimension, Solehudin et al. (2025b) demonstrated that AI-generated music through the Suno AI platform improved listening comprehension and vocabulary acquisition by embedding lexical items within authentic lyrical contexts. Their findings underscore that emotional engagement and repeated exposure contribute substantially to lexical consolidation, particularly in receptive skill development.

Beyond pedagogical intervention, psycholinguistic research has provided empirical evidence highlighting the cognitive foundations of verb learning. Asadi et al. (2025) conducted a large-scale experimental study involving over a thousand Arabic-speaking children and found that verb patterns were acquired more robustly than noun patterns across all grade levels, with significant effects observed for reading proficiency. Their findings indicate that verbs occupy a central role in literacy development and that morphological instruction significantly influences comprehension and production. Complementing this developmental perspective, Nassif et al. (2022) used eye-tracking technology to investigate how attention to Arabic verbal morphology affects acquisition. Their results showed that even minimal exposure produced measurable gains in learners' written production, emphasizing attention as a decisive variable in morphological learning. These findings provide strong psycholinguistic justification for instructional designs that deliberately activate learners' attentional focus on verb forms.

Structural linguistic research further illustrates why Arabic verbs present unique challenges. Alhroot (2025) documented the declining presence of multiple verbal nouns in modern Arabic dictionaries, reflecting an ongoing standardization process that affects how verbs are taught and understood. In a related analysis, Alhroot (2024) showed that classical Arabic regularly applied phonological reduction within verb constructions, revealing deep morphological complexity that modern learners must navigate. Together, these studies demonstrate that Arabic verbs are structurally dense and historically layered, reinforcing the pedagogical necessity for explicit and cognitively informed instruction. At the institutional and conceptual level, Hanifansyah (2025) proposed that psycholinguistic strategies such as immersive learning environments, scaffolding, and contextual engagement serve as engines for talent regeneration in Arabic education across Malaysia and Indonesia. His framework situates classroom practice within a broader educational paradigm, arguing that sustainable language development requires alignment between cognitive theory and instructional policy.

Although these studies collectively confirm that psycholinguistic principles, communicative practice, and innovative media improve vocabulary learning, several critical omissions remain apparent. Research in Arabic pedagogy has largely treated vocabulary as a general construct, with minimal attention to verbs as a distinct lexical class despite their functional centrality. Furthermore, while attention has been identified

as a key variable in acquisition, few classroom studies intentionally design tasks that provoke cognitive focus through structured prediction or retrieval. Game-based instruction is increasingly popular, but guessing activities have rarely been examined as a systematic instructional model capable of reinforcing memory through cognitive tension and hypothesis testing. Additionally, although Malaysian classroom research has documented successful communicative approaches, experimental investigation into verb-specific cognitive interventions remains limited. Technological studies have emphasized engagement, yet low-cost strategies that directly influence retrieval processes are underrepresented, revealing a need for pedagogical models that are both cognitively principled and practically accessible (Susilawati et al., 2023).

In light of these gaps, current research stands at an important juncture. While psycholinguistic and pedagogical findings converge on the importance of meaningful engagement, cognitive activation, and morphological awareness, the field has not yet integrated these elements into a cohesive verb-centered instructional framework. Existing literature confirms that media enhance learning, attention accelerates acquisition, and verbs are foundational to language development; however, no single approach has unified these insights into a targeted method for Arabic verb instruction. Consequently, a comprehensive model linking attention, prediction, and retrieval practice remains absent from Arabic education research.

This study therefore advances the field by repositioning guessing-based learning as a principled psycholinguistic intervention rather than a peripheral classroom game. It contributes by isolating Arabic verbs as the core learning target, by conceptualizing guessing as a cognitive mechanism that stimulates attention and retrieval, and by providing experimental evidence within the Malaysian educational context. Through this synthesis, the study introduces an integrative framework that bridges theory and practice, offering a low-cost and scalable solution for improving verb retention. In doing so, it moves beyond descriptive pedagogy toward an evidence-based model grounded in cognitive science, establishing a novel methodological trajectory for Arabic language education.. Guessing tasks such as "What is the Arabic verb for…?" stimulate learners to access prior knowledge, negotiate meaning, and engage in cognitive struggle that aids memory consolidation. Yet, empirical evidence exploring how such strategies

specifically support Arabic verb learning in Southeast Asian contexts especially within Malaysian Arabic education remains scarce. This absence in the literature reveals a significant gap that this study seeks to address.

The present study focuses on examining how guessing-based learning can strengthen the retention of Arabic verbs among Malaysian lower secondary students at the Tingkatan 3 (Form 3) level, typically aged around 15 years. Two research problems are formulated: (1) How do guessing-based activities influence students' ability to recall and retain basic Arabic verbs? (2) What learning patterns emerge when students participate in repeated guessing tasks in the classroom? The scope of this study is limited to high-frequency Arabic verbs taught at beginner and intermediate levels, and it does not examine advanced morphology such as verb derivations (tashrīf). Additionally, because the study focuses on a classroom-based experiment, the findings are not intended to generalize to all Arabic learners in Malaysia but rather to illustrate the pedagogical potential of guessing strategies.

The significance of this study lies in its contribution to both theory and practice. Theoretically, it extends the literature on vocabulary retention by integrating psycholinguistic insights on prediction, retrieval practice, and cognitive engagement into the context of Arabic language learning. Practically, it offers a simple yet effective instructional model that teachers can adopt in Malaysian classrooms to increase students' active participation and strengthen their mastery of core verbs. The study's contribution also lies in demonstrating how low-cost, game-like activities can meaningfully enhance learning outcomes without the need for advanced technology.

METHOD

This study employed a mixed-methods classroom-based quasi-experimental design to investigate the effectiveness of guessing-based learning in enhancing Arabic verb retention among learners in Malaysia (Creswell, 2021, 2024; Creswell & Creswell, 2020). Quantitative data were used to measure changes in verb retention through pre-test and post-test scores, while qualitative data were collected to capture learners' cognitive engagement, attentional focus, and classroom interaction patterns. This design was guided by psycholinguistic principles, particularly retrieval practice theory, which posits that active recall strengthens long-term memory, and the depth of processing hypothesis, which asserts that cognitively demanding tasks lead to more durable

learning outcomes. Guessing-based instruction was operationalized as a pedagogical intervention to activate attention, prediction, and retrieval during verb learning, following psycholinguistic models that emphasize attentional control and memory consolidation in second-language acquisition.

The research was conducted at Maktab Mahmud Yan, Kedah, Malaysia, a prominent Islamic educational institution where Arabic functions as a core academic subject. The site was purposively selected due to three considerations: the central role of Arabic in the curriculum, the observable challenge of verb recall despite prolonged exposure, and institutional support for instructional experimentation. The units of analysis were individual learners and their performance in verb retention tasks, while the instructional focus was limited to high-frequency Arabic verbs used in daily communication. The study excluded advanced morphology and derivational patterns in order to maintain analytical focus on basic verb mastery.

A quasi-experimental design was adopted comprising an experimental group and a comparison group. Participants consisted of 60 Malaysian lower secondary students at the Tingkatan 3 (Form 3) level (N = 60), with 30 students assigned to the experimental group and 30 to the comparison group. The participants were typically 15 years old, with an age range of 14–16 years, and included 32 female and 28 male students.

Participants were drawn from intermediate-level Arabic classes within the same institution and academic cohort to ensure comparable exposure to Arabic instruction. This comparability was established based on three criteria: (1) the use of the same Arabic textbook and syllabus, (2) an equivalent duration of formal Arabic instruction (approximately five years), and (3) instruction delivered by teachers following identical curricular guidelines prior to the intervention.

Inclusion criteria required that students had completed at least two years of continuous Arabic study, regularly attended Arabic classes, and had no diagnosed learning difficulties affecting language acquisition. The experimental group received instruction through structured guessing-based activities, whereas the comparison group was taught using conventional explanation and memorization techniques. Primary data consisted of pre-test and post-test measures of verb retention, classroom observations,

and student response worksheets, while secondary data included institutional documents and curricular materials supporting instructional design.

Data collection occurred in three phases. In the pre-intervention phase, both groups completed a standardized verb knowledge test to establish baseline competence. During the instructional phase, the experimental group engaged in structured guessing tasks such as verbal prompts ("What is the Arabic verb for...?"), peer-interaction exercises, and rapid-recall challenges, all designed to activate retrieval processes. Observational notes were systematically compiled to document student engagement and behavioral response. In the final phase, a post-test identical in structure to the pre-test was administered to measure gains in verb retention.

Data analysis was conducted using mixed techniques. Quantitative data from the pre-test and post-test results were analyzed for gain scores and percentage improvement to evaluate retention outcomes. Qualitative data from observation logs and student feedback were thematically coded to identify patterns related to attention, motivation, and learning engagement. The integration of these two data strands provided triangulated insight into both cognitive outcome and classroom process, strengthening the validity of findings (Balcom et al., 2021).

The post-test in this study was administered as an immediate post-test, conducted directly after the instructional intervention. Although delayed post-testing is often recommended to assess long-term retention, the present study operationalized verb retention as learners' ability to retrieve verbs following structured instructional exposure within a classroom cycle. Immediate post-testing was selected due to instructional time constraints and institutional scheduling limitations. Nevertheless, consistent with retrieval practice theory, improvements observed in immediate recall are considered indicative of strengthened memory traces and increased likelihood of longer-term retention. Future studies are therefore encouraged to incorporate delayed post-tests to further examine the durability of learning effects over time.

This methodological approach ensured alignment between theory and instructional practice by explicitly linking guessing-based learning activities to psycholinguistic constructs related to attention, memory retrieval, and long-term retention. By combining experimental measurement with qualitative classroom analysis,

the study established both empirical rigor and pedagogical relevance in evaluating the impact of guessing strategies on Arabic verb acquisition.

RESULTS AND DISCUSSION
Effects of Guessing-Based Learning on Arabic Verb Retention

Quantitative analysis revealed a modest yet consistent improvement in students' Arabic verb retention following the implementation of guessing-based learning activities. The experimental group demonstrated an increase in mean test scores from M = 62.1 (SD = 7.6) in the pre-test to M = 69.4 (SD = 7.1) in the post-test. By comparison, the control group showed a smaller improvement from M = 61.8 (SD = 7.9) to M = 64.9 (SD = 7.5). The average gain in the experimental group (+7.3 points) was higher than that of the control group (+3.1 points), indicating that learners engaged in guessing-based activities experienced greater progress in verb recall.

A paired-samples analysis further indicated that the improvement observed in the experimental group reached statistical significance (p = .034), whereas the change in the control group did not achieve statistical significance (p = .127). These findings suggest that guessing-based learning contributed positively to students' retention of Arabic verbs, although the improvement was not dramatic. The magnitude of the effect was classified as moderate (Cohen's d = 0.38), reflecting an educationally meaningful but not excessive impact. This result is consistent with classroom-based interventions in applied linguistics, where cognitive strategies typically yield gradual gains rather than drastic changes within a short instructional period.

Table1. Statistical Summary Table of Arabic Verb Retention Results

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Gain	t (df)	p value	Cohen's d	Effect Size
Experimental Group	62.1 (7.6)	69.4 (7.1)	7.3	- 2.23 (29)	0.034	0.38	Moderate
Control Group	61.8 (7.9)	64.9 (7.5)	3.1	- 1.55 (29)	0.127	0.19	Small

This table summarizes all quantitative findings and shows that guessing-based learning resulted in greater improvement and stronger effect size.

From a psycholinguistic perspective, this result supports retrieval practice theory, which maintains that memory is strengthened when learners repeatedly access and reconstruct knowledge rather than passively receiving it. When students were prompted with questions such as "What is the Arabic verb for…?", they were required to activate lexical representations directly from memory rather than relying on recognition, thereby reinforcing retrieval routes and strengthening long-term retention.

The moderate effect size observed in this study (Cohen's d = 0.38), rather than a large effect, can be attributed to several contextual and methodological factors. First, the instructional intervention was implemented over a relatively short classroom period, which may limit the magnitude of observable learning gains, particularly for cognitively demanding processes such as verb retention. Second, the study was conducted within a natural classroom environment where instructional time, curriculum pacing, and learner heterogeneity could not be fully controlled. Third, guessing-based learning primarily targets retrieval and attentional activation rather than extensive input expansion, which typically results in gradual improvements rather than rapid, large-scale gains. Therefore, the moderate effect size should be interpreted as educationally meaningful, reflecting realistic learning progress within authentic classroom conditions rather than as a limitation of the instructional approach.

Classroom observations further indicated that guessing-based questioning generated a heightened state of shared attention, even among students who were not directly addressed. Learners closely followed each question, mentally rehearsed possible answers, and participated in collective reading of the correct verb after each prompt. The anticipation of being called upon fostered cognitive readiness and encouraged students to prepare more actively prior to the activity, thereby supporting sustained attentional engagement and reinforcing verb retention.

Learning Patterns Emerging from Guessing-Based Classroom Interaction

Qualitative findings revealed several learning patterns associated with guessing-based instruction. Classroom observations indicated heightened student attentiveness, increased verbal participation, and stronger peer interaction. Learners exhibited visible cognitive effort during guessing tasks, frequently pausing, negotiating meaning with peers, and using semantic clues to reconstruct verbs. This behaviour reflects deeper engagement with language structure rather than surface memorization.

Interview excerpts further illustrate these patterns:

"When the teacher asked the meaning and I had to guess the verb, I felt stressed at first, but later I realized I remembered more because I tried harder to recall the word." (Student 4)

"Guessing the verbs makes me curious. Even when I answered wrongly, I remembered the correct word better afterwards." (Student 9)

"Before this activity, I only memorized the words. Now I can remember them because I used my thinking, not just my notes." (Student 12)

Teachers also observed noticeable changes in classroom dynamics:

"Students became more active. Instead of waiting for explanations, they tried to construct answers on their own. This is a big change from traditional lessons." (Teacher A)

"Guessing made students brave to speak. They were no longer afraid of answering because mistakes were part of the process." (Teacher B)

These qualitative findings confirm that guessing-based learning not only enhances cognitive processing but also transforms classroom culture by encouraging risk-taking and autonomous learning behaviour.

The findings of this study provide strong pedagogical and psycholinguistic support for the effectiveness of guessing-based learning in strengthening Arabic verb retention among Malaysian learners. The improvement in learners' recall aligns with Mahmudah et al. (2024), who demonstrated that meaningful engagement through visual and narrative instruction enhanced vocabulary retention and speaking confidence. While their work emphasized input enrichment through comic strips, the present study advances the field by showing that learning gains can also be achieved by shifting the cognitive burden from passive reception to active reconstruction through guessing. This suggests that retrieval-oriented pedagogy functions as a complementary mechanism to input-based instruction.

The results also resonate with communicative-focused research in the Malaysian context. Hanifansyah and Mahmudah (2024) reported that communicative strategies at Maktab Mahmud Yan significantly improved learners' vocabulary mastery and classroom participation. The present study extends their findings by revealing that

interactivity alone is not sufficient; learning outcomes improve when communicative engagement is combined with cognitive challenge. Guessing tasks create purposeful interaction by obliging learners to retrieve lexical items under conditions of uncertainty, thereby consolidating memory more effectively than conversational exposure alone.

Psycholinguistic consistency is further observed when positioning the findings alongside Nassif et al. (2022), whose eye-tracking study demonstrated that attention to Arabic verbal morphology directly enhances written production. Guessing-based activities in the present study similarly functioned as an attentional trigger, forcing learners to focus on form and meaning simultaneously. By provoking prediction and hypothesis testing, guessing-based learning operationalizes the attentional mechanisms identified in psycholinguistic research and embeds them within classroom instruction.

Field data from classroom observations and student interviews provide concrete evidence supporting the claim of increased learner self-confidence. During guessing-based activities, several students who were previously hesitant to speak voluntarily raised their hands or attempted answers when prompted. One student remarked, *"At first I was afraid of answering because I might be wrong, but after several questions, I felt more confident because guessing was allowed."* Another student stated, *"Even if my answer was not correct, I felt encouraged to try because the teacher and friends were also thinking together."* Classroom observation notes further recorded that students-maintained eye contact with the teacher, leaned forward during questioning, and audibly rehearsed verbs before responding. These behavioral indicators suggest that guessing-based questioning reduced fear of error and fostered a supportive learning atmosphere, thereby enhancing learners' self-confidence alongside attentional focus and cognitive engagement.

From a developmental perspective, the emphasis on verbs is empirically justified by Asadi et al. (2025), who established that verb morphology is acquired more robustly than noun morphology and is closely correlated with literacy development. While their study examined natural developmental patterns, the current research contributes instructional evidence by demonstrating that deliberate pedagogical focus on verbs through guessing accelerates retention. This indicates that explicit instructional intervention can reinforce patterns that naturally emerge in language development.

Media-based interventions in Arabic learning, such as AI-generated music (Solehudin et al., 2024b) and multisensory chalk-based instruction (Solehudin et al., 2024a), highlight the importance of emotional engagement and sensory input in vocabulary learning. Unlike those approaches, the present study does not rely on technological stimuli or aesthetic enhancement; rather, it centers on cognitive difficulty as the primary engine of learning. This distinction suggests that guessing-based learning represents a minimalist yet cognitively maximal intervention capable of producing learning gains without technological dependency.

Finally, this study supports the broader psycholinguistic framework proposed by Hanifansyah (2025), which conceptualizes language education as a process of talent regeneration through immersive and cognitively responsive pedagogy. Guessing-based instruction aligns with this view in that it fosters learner autonomy, intellectual risk-taking, and self-regulated learning. Observed changes in classroom interaction indicate that students gradually shifted from dependence on instruction toward active hypothesis formation, reflecting the emergence of higher-order language learning behavior.

Taken together, the results demonstrate that guessing-based learning is not merely a gamified activity but a psycholinguistically grounded instructional model. It deepens engagement, strengthens attention, and systematically nurtures verb retention. Unlike previous approaches that privilege input modes or technological mediation, this study foregrounds retrieval as a core linguistic mechanism. In doing so, it situates guessing-based learning as a theoretically informed and empirically supported approach capable of enriching Arabic language education in Malaysia and beyond.

CONCLUSION

This study demonstrates that guessing-based learning constitutes an effective instructional approach for enhancing Arabic verb retention among Malaysian lower secondary learners. Quantitative findings indicate that students in the experimental group achieved an average gain of 7.3 points, compared to 3.1 points in the comparison group, with a moderate effect size (Cohen's d = 0.38). This result confirms that retrieval-oriented activities facilitate stronger memory consolidation than conventional explanation and memorization alone. Qualitative findings further reveal that guessing-

based tasks promote higher learner engagement, increased confidence, and more active classroom participation, particularly during spontaneous recall.

From a theoretical perspective, these findings reinforce psycholinguistic models that emphasize retrieval practice and depth of processing as central mechanisms in vocabulary learning. Guessing activities function as cognitively demanding tasks that trigger attention, prediction, and hypothesis testing, thereby strengthening long-term lexical retention.

Pedagogically, this study offers concrete implications for classroom practice. Teachers are encouraged to integrate guessing-based tasks regularly, for example two to three short sessions per week, with each activity lasting 5–10 minutes, focusing on high-frequency verbs embedded in familiar communicative contexts. Such activities may be implemented through oral prompts (e.g., "What is the Arabic verb for…?"), peer guessing, or rapid recall challenges, allowing learners to engage in low-risk cognitive struggle that supports retention.

From a practical perspective, Arabic teachers in Malaysia may integrate guessing-based learning into their daily lesson plans by allocating short, structured questioning sessions at the beginning or end of each class. For example, teachers can introduce five to ten high-frequency verbs and pose rapid prompts such as *"What is the Arabic verb for…?"*, encouraging all students to mentally prepare answers even when only one learner responds verbally. Following each question, collective reading or choral repetition of the correct verb can be used to reinforce memory consolidation. These activities may be implemented for 5–10 minutes per session without altering the core curriculum, making them compatible with existing lesson plans (RPP). By embedding guessing-based tasks as routine retrieval practice, teachers can promote sustained attention, learner readiness, and gradual improvement in Arabic verb retention within everyday classroom instruction.

Although this study is limited to a single institutional context and basic-level verbs, the findings highlight the potential of guessing-based learning as a low-cost, scalable, and cognitively grounded intervention in Arabic language education. Future research should extend this approach to advanced verb structures, longer instructional durations, and diverse educational settings. Overall, the study positions guessing-based learning not merely as a classroom game, but as a psycholinguistically principled strategy capable

of strengthening vocabulary retention and communicative competence in Arabic learning.

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