

Enhancing Malay Vocabulary Acquisition among Chinese Learners through Pictorial Interventions: An Action Research Study

Sharliana Che Ani, Wan Nuraishah Mohd Ali, Viana Mah Yee Fung, Uma Devi Ratha Krishnan, Thamaraselvi Krishnasamy

UNITAR International University, Malaysia

Email: sharliana@unitar.my

DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v16-i4/28195>

Published Date: 28 April 2026

Abstract

While vocabulary mastery remains the bedrock of language proficiency, Chinese learners in Malaysian vernacular settings often struggle with a significant "vocabulary gap" caused by limited environmental exposure and traditional rote-learning methods. Our investigation focused on a cohort of 45 Form 2 Harmoni students at Sekolah Menengah Tinggi Hin Hua (Hin Hua High School) to determine if pictorial interventions could serve as an effective cognitive bridge. Following the Kemmis and McTaggart (1988) action research model, we utilized a mixed-methods design involving pre- and post-tests, classroom observations, teacher reflections, and student surveys. The results showed a dramatic leap in performance, with mean scores rising from 43% to 74%, a statistically significant 31-point increase. By the end of the study, 88.9% of the cohort reached "Good" or "Excellent" levels, while the "Weak" category was eliminated. Qualitative feedback suggested that vibrant, colored imagery helped students build resilient mental maps for abstract terms. Crucially, students moved beyond mere memorization to accurately distinguish nuanced Malay verbs such as *mengendong* (carrying on the back/hip), which are often lost in translation during traditional "chalk and talk" lessons. We conclude that visual pedagogy is not merely a decorative aid but a critical "psychological safety net" that lowers learner anxiety and sustains cognitive engagement for non-native speakers.

Keywords: Malay Vocabulary, Pictorial Intervention, Action Research, Chinese Learners, Second Language Acquisition, Visual Pedagogy

Introduction

Background of the Study

Mastery of vocabulary is not merely an academic prerequisite; it is the fundamental cornerstone of language proficiency, effective communication, and social integration. In the context of Malaysia, proficiency in the Malay language (*Bahasa Melayu*) is crucial as it serves as the national language and a primary medium for national unity. The utility of robust

vocabulary acquisition cannot be overstated, as lexical depth directly correlates with a student's ability to comprehend texts, construct coherent sentences, and engage in higher-order critical thinking.

However, achieving this mastery presents a formidable challenge for Chinese students in vernacular school settings (SJKC/SMK). Because their linguistic environment is predominantly centered on mother tongues such as Mandarin, Cantonese, or Hakka, these learners face significant environmental and linguistic barriers, rendering their exposure to the Malay language severely limited outside formal schooling. Consequently, there is a critical need to explore and implement highly effective, evidence-based instructional strategies that can bridge this "vocabulary gap". The prevailing reliance on traditional "chalk and talk" and rote-memorization pedagogies has proven monotonous, failing to establish the necessary cognitive links between abstract words and concrete meanings. Therefore, this study explores the utility and effectiveness of pictorial interventions. A multimodal pedagogical tool designed to bypass mental translation, reduce cognitive load, and map semantic meanings directly to the target language.

Statement of the Problem

The linguistic deficiencies identified in this cohort stem from several critical barriers. First, a lack of environmental exposure restricts students' opportunities to use Malay in authentic contexts, as Chinese remains the primary medium of communication at home and within their immediate communities. Second, traditional pedagogical approaches that rely heavily on textbooks and "chalk and talk" methods have proven to be monotonous and unengaging for many students. Such methods frequently fail to cater to learners with visual or kinesthetic preferences, thereby hindering their ability to internalize and recall new words effectively. Furthermore, we found that existing instructional materials often lack the visual stimulation necessary to help students build cognitive links between a word and its meaning. Without this visual scaffolding, students find it difficult to relate abstract Malay terms to concrete objects or daily situations. In light of these issues, we proposed an interactive, visual-based strategy to improve vocabulary mastery more effectively among Chinese learners. Consequently, this study seeks to bridge the gap between abstract rote learning and visual comprehension.

The persistent linguistic deficiencies among these learners underscore an urgent pedagogical need to pivot away from traditional, text-heavy instructional methods that fail to cater to visual and kinesthetic learners. Without appropriate visual scaffolding, non-native speakers experience high cognitive load and linguistic anxiety, making it difficult to internalize and retain new words. The need for this study, therefore, arises from the necessity to validate and systematize the use of pictorial interventions as a highly effective, low-anxiety instructional alternative. By investigating the tangible utility of colored visual aids, this research seeks to provide a practical solution to a chronic educational challenge, transforming passive vocabulary memorization into an active, cognitively engaging process.

Research Objectives

The study is guided by the following objectives:

1. To identify the baseline level of Malay vocabulary mastery among Form 2 Harmoni students before the implementation of the intervention.

2. To explore how the systematic use of pictorial instructional aids facilitates Malay vocabulary acquisition.
3. To determine the observable changes in student engagement and interest during vocabulary lessons following the use of pictorial aids.
4. To evaluate the significant difference in students' vocabulary mastery levels before and after the implementation of the pictorial intervention.

Research Questions

To achieve the aforementioned objectives, the study addresses the following questions:

1. What is the baseline level of Malay vocabulary mastery among Form 2 Harmoni students before the introduction of pictorial interventions?
2. How does the use of pictorial instructional aids facilitate the improvement of Malay vocabulary acquisition among these students?
3. What observable changes occur in terms of student engagement and interest during vocabulary lessons following the use of pictorial aids?
4. Is there a significant difference in students' vocabulary mastery levels before and after the implementation of the pictorial intervention?

Significance of the Study

This study emphasizes the practical utility of visual pedagogy and offers substantial benefits to multiple key stakeholders within the educational ecosystem for:

- **Second Language Learners**

The study is highly beneficial for non-native students, particularly Chinese learners in vernacular environments, as it provides a cognitively optimized pathway for language acquisition. By leveraging pictorial interventions, learners are provided with a "psychological safety net" that lowers the affective filter, reduces classroom anxiety, and fosters intrinsic motivation. Furthermore, it enhances long-term memory retention by establishing dual cognitive pathways (verbal and visual) for abstract vocabulary.

- **Educators and Practitioners**

The findings offer crucial empirical evidence for Malay language teachers seeking to improve their pedagogical effectiveness. It provides educators with a validated, practical framework to transition away from monotonous "chalk and talk" methods toward interactive, multimodal instruction that caters to diverse learning styles and elevates student engagement.

- **Curriculum Developers and Policymakers**

On a systemic level, the study highlights the importance of integrating contextually relevant, highly vibrant visual stimuli into national textbooks and instructional modules. The evidence generated by this research serves as a robust foundation for policymakers to advocate for visually enriched curriculum designs that effectively overcome linguistic barriers in multicultural and vernacular school settings.

Literature Review

The acquisition of a second language (L2), particularly lexical items, was heavily influenced by the learner's linguistic environment and the pedagogical strategies employed in the classroom. For Chinese and Indian learners in Malaysian vernacular school settings (SJKC/SJKT), the reliance on mother tongues as the primary medium of instruction often

resulted in limited exposure to Malay, leading to significant phonological and semantic challenges as they transitioned to the secondary level (SMK). Chew and Wong (2022) observed that this transition often exposed a "vocabulary gap," where students lacked the academic lexical depth required for the secondary curriculum.

Contemporary research emphasized the critical role of visual scaffolding in L2 acquisition. This efficacy was deeply rooted in Paivio's Dual Coding Theory, which suggested that the brain processed verbal and visual information through distinct yet interconnected channels. Rahman and Sahrir (2021) posited that when Malay vocabulary was presented alongside congruent imagery, learners created two separate mental representations, doubling the paths for retrieval. By bypassing the constant need for mental translation from a mother tongue into Malay, pictorial stimuli reduced the cognitive load, allowing students to map semantic meanings directly to the L2 target word (Lee & Thadphoothon, 2022).

Tan and Lim (2024) highlighted that pictorial interventions significantly enhanced vocabulary retention among L2 learners by providing a concrete visual anchor for otherwise abstract terms. Similarly, Abdullah and Yusof (2023) argued that visual aids like flashcards and illustrations fostered long-term memory, aligning with core theories of second language acquisition regarding input saliency. The systematic use of these aids was not merely passive; it encouraged "visual literacy," where students began to associate visual cues with complex grammatical structures (Mohd Izwan & Nurul, 2023).

Beyond mere cognition, pictorial aids served as powerful motivational catalysts. Tan Wei Leng and Suriani Md Noor (2020) demonstrated that such interventions encouraged active participation among non-native speakers. This shift was vital for lowering the "Affective Filter." Nagaraj and Subramaniam (2021) noted that learners in vernacular settings often experienced high anxiety; the introduction of pictorial stimuli served as a "psychological safety net."

Methodology

Research Design

This study adopts an Action Research design based on the Kemmis and McTaggart (1988) model. This framework was selected for its systematic, cyclical approach: Planning, Acting, Observing, and Reflecting—allowing the teacher-researcher to implement immediate classroom interventions and evaluate their efficacy in real-time.

Participants

The participant cohort comprised 45 Form 2 students from the "Harmoni" class at Sekolah Menengah Tinggi Hin Hua, Klang, Selangor. All participants are of Chinese ethnicity and were purposively selected due to their identified low proficiency in Malay vocabulary and their status as non-native speakers.

Data Collection Instruments

To ensure the reliability and validity of the findings, this study utilized a triangulated mixed-methods approach. The integration of quantitative and qualitative instruments allowed for a holistic assessment of the intervention's impact on both academic performance and student engagement.

Table 1

Summary of Data Collection Instruments

Instrument	Type	Purpose
Pre- & Post-Tests	Quantitative	To establish baseline lexical proficiency and measure statistically significant gains post-intervention.
Classroom Observations	Qualitative	Direct monitoring of student behavioral shifts, engagement levels, and real-time reactions to visual stimuli.
Survey Questionnaires	Quantitative	Distributed via Google Forms/QR codes to capture student perceptions on motivation, interest, and efficacy.
Reflective Journals	Qualitative	Teacher-researcher records of instructional challenges, student responses, and session effectiveness.

Intervention Procedure

The intervention was designed specifically for Chinese learners who exhibit a preference for visual learning styles. The process followed a systematic one-week timeline, moving from diagnostic assessment to interactive application.

Table 2

Structured Phases of the Pictorial Intervention

Phase	Activity	Description & Implementation
Phase 1: Diagnostic	Pre-Test	Administration of a baseline assessment to 45 participants to identify initial vocabulary gaps.
Phase 2: Implementation	Intervention 1	Introduction of target nouns, verbs, and compound words using colored PowerPoint slides with pronunciation and semantic cues.
Phase 3: Application	Intervention 2	Interactive sessions involving image-word matching, sentence completion, and higher-difficulty vocabulary games.
Phase 4: Evaluation	Post-Test & Survey	Final summative assessment and perception survey to determine the degree of improvement and student satisfaction.

Results and Data Analysis

This section presents a comprehensive analysis of the empirical data gathered during the research cycle. The primary evaluation of the pictorial intervention's efficacy is based on the comparative performance between the diagnostic pre-test and the summative post-test, alongside a detailed examination of student achievement distributions.

Comparative Analysis of Mean Performance

The quantitative assessment of lexical acquisition demonstrates a profound upward shift in student performance following the implementation of visual instructional aids. The baseline proficiency, established via the pre-test, indicated a mean score of 43%. Post-intervention, the cohort achieved a mean score of 74%, representing a statistically significant net gain of 31%. This substantial increase validates our hypothesis that visual scaffolding facilitates a more robust cognitive bridge between abstract Malay vocabulary and semantic understanding for non-native learners.

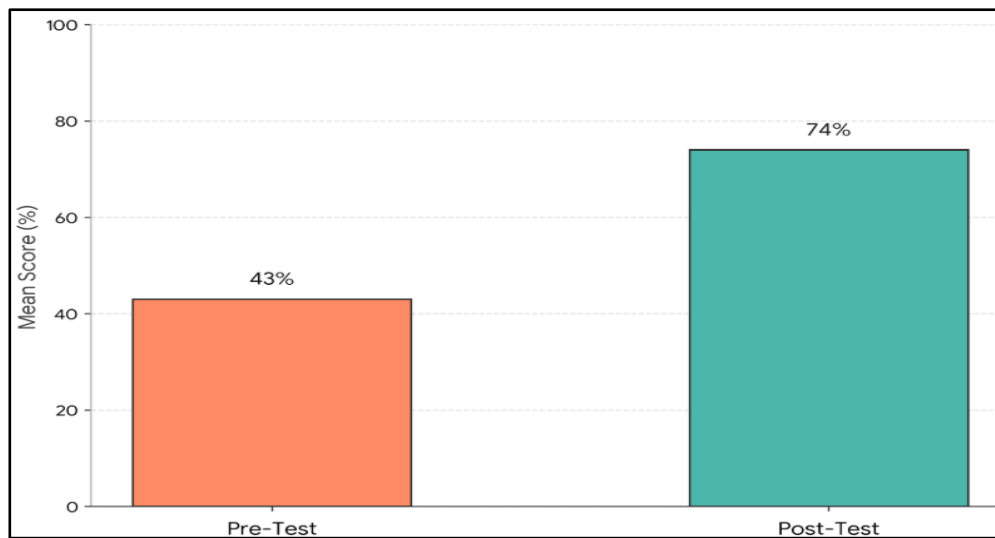
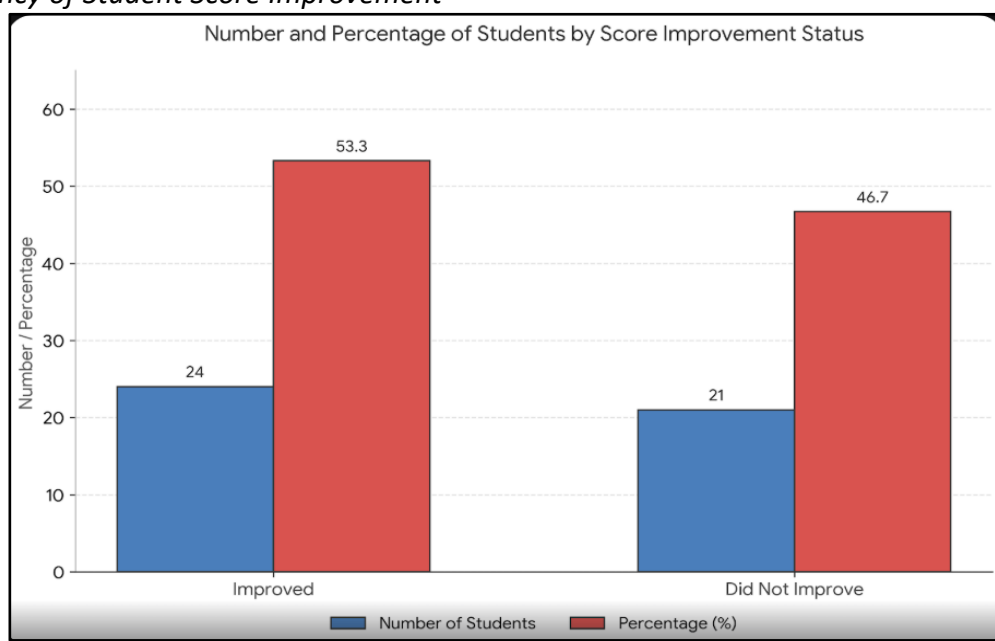


Figure 1: Comparison of Mean Scores Between Pre-Test and Post-Test

This substantial increase validates the hypothesis that visual scaffolding facilitates a more robust cognitive bridge between abstract Malay vocabulary and semantic understanding for non-native learners.

Frequency of Student Score Improvement



Data Breakdown

Improvement Status	Number of Students	Percentage
Improved	24	53.3%
Did Not Improve	21	46.7%

Figure 4.1.2 (a): Number of Students Demonstrating Score Improvement (Refer to the bar chart showing: 24 Improved, 21 No Improvement)

Out of the total cohort of 45 students, 24 participants (53.3%) exhibited a direct increase in their post-test scores compared to their pre-test results. This indicates that more than half of

the students derived tangible benefits from the pictorial aids. Conversely, 21 students (46.7%) did not register a numeric score improvement. However, we observed that this group primarily consisted of students who already possessed a strong foundational grasp of the material; their scores remained stable at a high level, contributing to the overall elimination of the "Weak" category.

Distribution of Post-Test Achievement

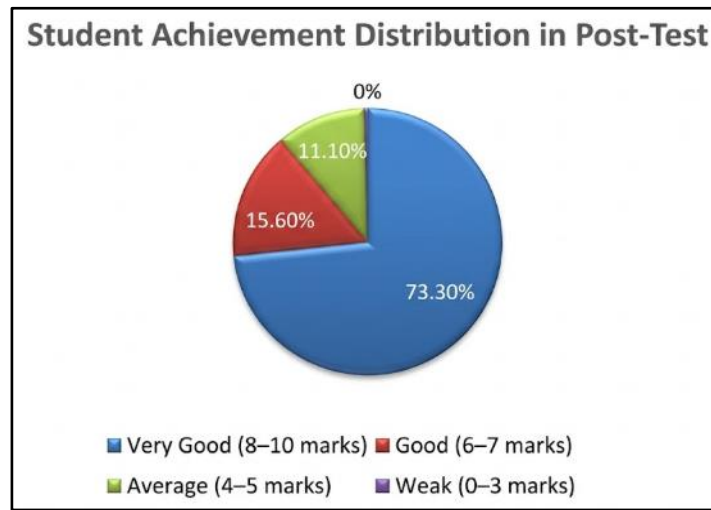


Figure 9.1.3 (a): Distribution of Post-Test Scores by Achievement Level
(Refer to the bar chart showing: Excellent 33, Good 7, Satisfactory 5, Weak 0)

The distribution of scores following the intervention is highly encouraging. We classified the 45 participants into four levels of achievement: Excellent, Good, Satisfactory, and Weak.

Achievement Level	Marks Range	Number of Students (n)	Percentage (%)
Excellent	8–10	33	73.3%
Good	6–7	7	15.6%
Satisfactory	4–5	5	11.1%
Weak	0–3	0	0%
Total	Max: 10	45	100%

The fact that 88.9% of the cohort achieved a "Good" or "Excellent" rating—and that no students remained in the "Weak" category highlights the intervention's success in elevating high-need learners while sustaining the performance of the rest of the class.

Summary of Pre-Test and Post-Test Analysis

Our analysis of the pre- and post-test data confirms that pictorial interventions significantly bolster Malay vocabulary mastery among non-native speakers. We observed a substantial rise in mean scores, which climbed from a 43% baseline to 74% post-intervention, marking a net improvement of 31%. These results offer clear evidence that visual-based pedagogical approaches do more than just simplify words; they strengthen a student's memory retention and semantic comprehension by providing a concrete anchor for abstract terms. We noted that while 24 out of 45 students (53.3%) achieved a direct numeric increase in their test scores, the remaining participants largely maintained their existing proficiency levels. We attribute these static results to external variables such as individual learning styles,

attendance constraints, and varying levels of foundational knowledge. However, these nuances only highlight the necessity of adapting our instructional strategies to meet the diverse needs of a vernacular classroom more comprehensively. The achievement distribution further validates the success of our intervention. We were able to eliminate the "Weak" category, with 73.3% of the cohort successfully reaching the "Excellent" tier. This outcome affirms that the use of pictorial aids is not merely a remedial tool for high-need learners; it is a versatile strategy capable of sustaining and elevating the performance of average and high-achieving students alike. Ultimately, the integration of images into our teaching has revitalized student interest and engagement, leading us to recommend that this approach be sustained and expanded within the standard Malay vocabulary curriculum.

Observational Findings

Prior to the execution of this action research, it was established that the students' mastery of Malay vocabulary was at a critical deficit. During the initial instructional sessions, observations revealed that students frequently failed to comprehend the semantic meaning of the target vocabulary, which resulted in a marked inability to construct coherent sentences using the taught lexicon. However, following the implementation of the pictorial intervention, a significant positive shift in linguistic proficiency was observed. The data suggested that students were able to retain and comprehend word meanings more effectively when abstract terms were cognitively anchored to specific images or authentic real-world contexts. Furthermore, a distinct improvement in affective engagement was noted; students demonstrated heightened confidence in verbalizing the Malay language and exhibited greater readiness to respond actively during classroom activities. Collectively, the intervention not only remediated deficits in vocabulary mastery but also significantly amplified student engagement within the Teaching and Learning (PdP) process.

Section A: Demographic Profile

This section delineates the demographic characteristics of the respondents involved in the study.

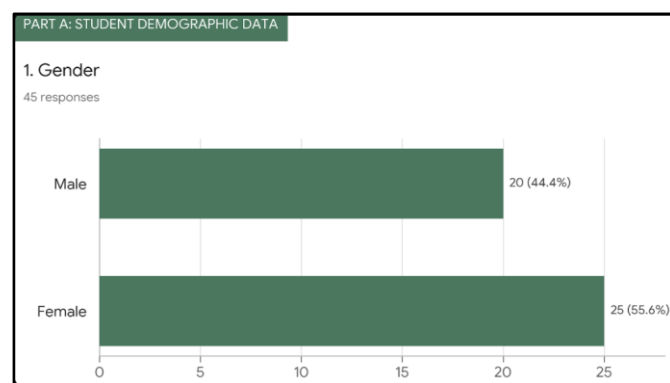


Figure 9.3.1 (a): Gender Distribution of Participants

The study comprised a total of 45 participants, stratified by gender into 20 male students and 25 female students. This balanced distribution ensures that the findings reflect a representative cross-section of the student population within the target class.

Section B: Student Perceptions of the Malay Language

This section examines the students' intrinsic attitudes toward the Malay language subject and compares their linguistic preferences with those of other languages.

I enjoy learning the Malay Language subject.

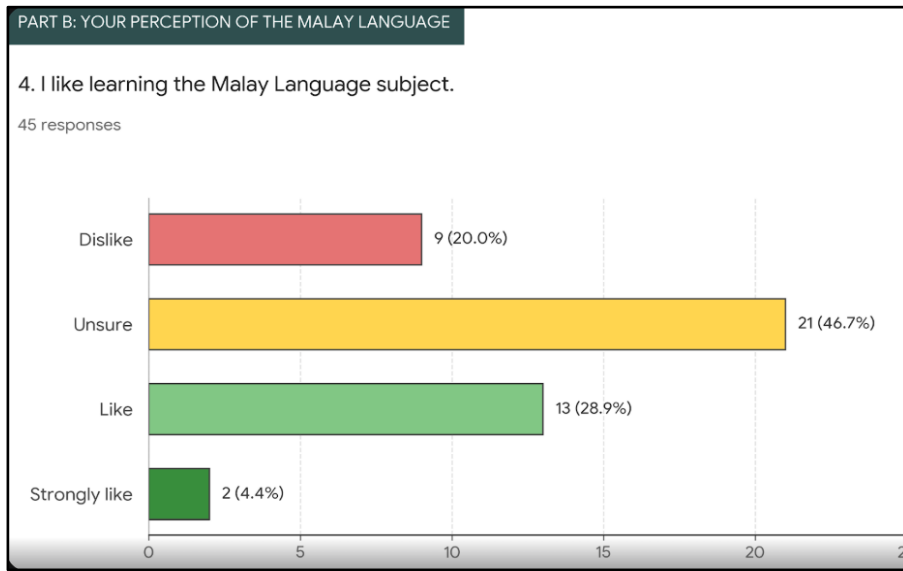


Figure 9.3.2 (a): Student Interest Levels in Learning Malay

The data revealed a mixed attitudinal landscape. A plurality of 21 students (46.7%) expressed uncertainty regarding their enjoyment of the subject. Meanwhile, 13 students (28.9%) indicated they "Like" the subject, and a minority of 2 students (4.4%) stated they "Strongly Like" it. Conversely, 9 students (20%) explicitly indicated a "Dislike" for learning Malay. The fact that nearly half the cohort is undecided suggests a lack of engagement with traditional teaching methods, highlighting a critical opportunity for pedagogical intervention.

I find it easier to learn Malay compared to other languages.

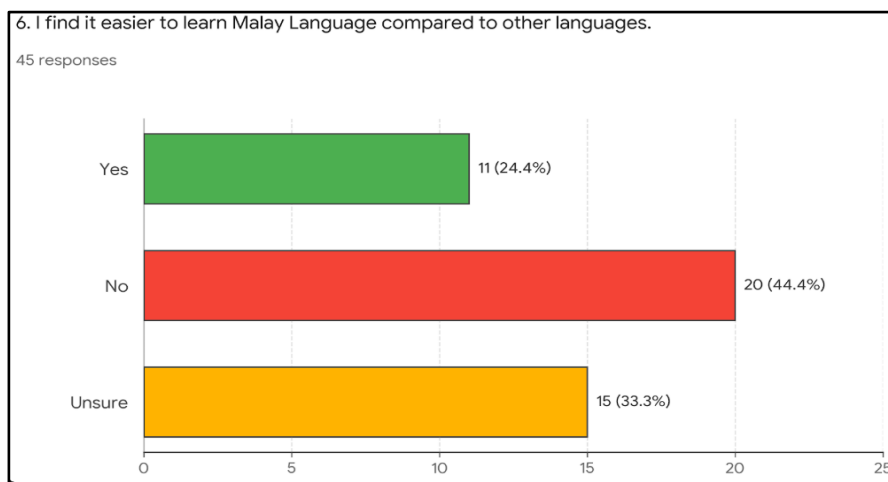


Figure 9.3.2 (b): Perceived Comparative Ease of Learning

The results indicate significant perceived difficulty in mastering Malay. 20 students (44.4%) disagreed with the statement, explicitly categorizing Malay as a difficult language to acquire. A further 15 students (33.3%) were "Uncertain" about its comparative ease. Only 11 students (24.4%) affirmed that they find Malay easier to learn than other languages. This data underscores the linguistic barriers faced by the students, validating the need for alternative instructional strategies such as visual scaffolding.

I prefer using other languages compared to Malay.

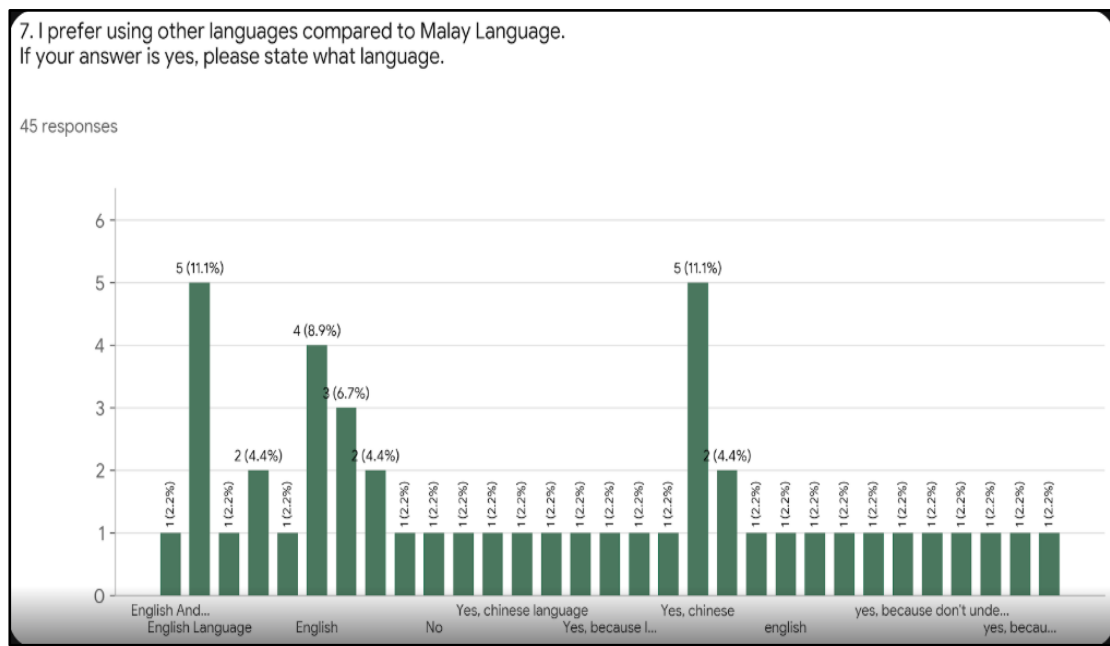


Figure 9.3.2 (c): Communicative Language Preference

The findings demonstrate a strong preference for non-Malay languages in daily communication. 29 students (64.4%) indicated a preference for Chinese (Mandarin), while 16 students (35.5%) preferred English. This linguistic dominance of Chinese and English in both school and social settings confirms that students have limited authentic exposure to the Malay language, reinforcing the "foreignness" of the vocabulary they encounter in class.

Section C: Prior Experience with Pictorial Learning

This section evaluates the students' previous exposure to visual aids and their preferences regarding specific types of pictorial stimuli for vocabulary acquisition.

How often do you use pictures to learn vocabulary?

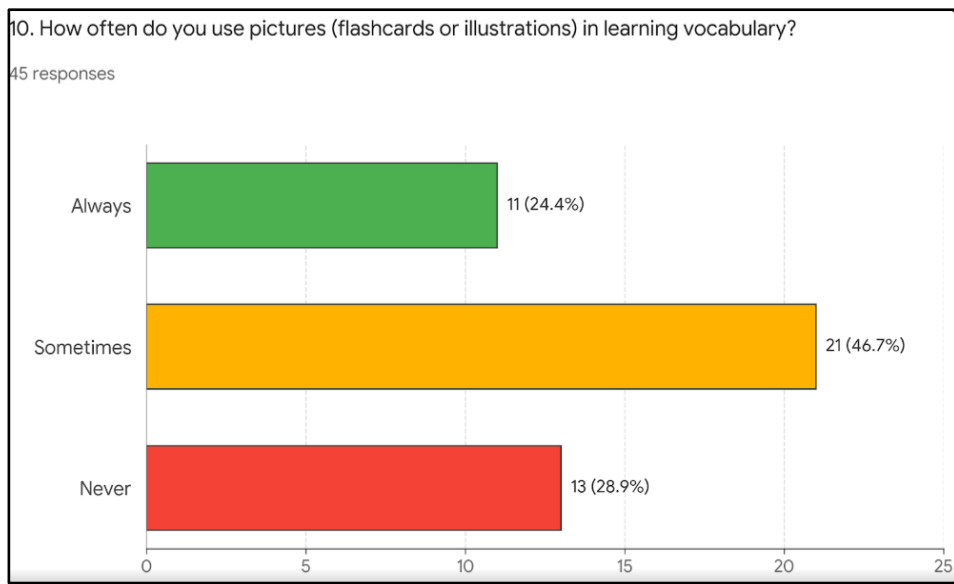


Figure 9.3.3 (a): Frequency of Pictorial Usage in Learning

The data indicated that visual learning is not a dominant practice for many students. 21 students (46.7%) reported using pictures "Sometimes," while 13 students (28.9%) stated they had "Never" used pictorial methods for vocabulary learning. Only 11 students (24.4%) reported "Always" using images. Cumulatively, while 32 students have some familiarity with the method, a significant portion of the class lacks consistent exposure to visual pedagogy.

What type of picture helps you the most in learning vocabulary?

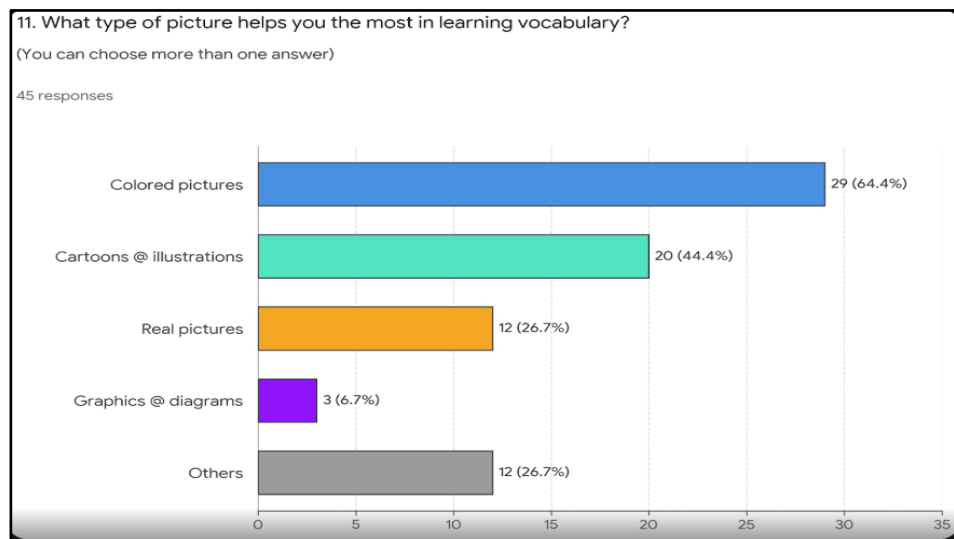


Figure 9.3.3 (b): Preferred Visual Modalities for Vocabulary Acquisition

Respondents were asked to identify the visual formats they found most efficacious (multiple selections were permitted). Colored imagery emerged as the most effective tool, selected by 29 students (64.4%). This was followed by cartoons/illustrations (20 students, 44.4%), real-life photography and other images (12 students, 26.7%), and graphics/diagrams (3 students, 6.7%). The strong preference for colored and animated imagery suggests that high-contrast,

visually stimulating materials are critical for capturing student attention and facilitating memory retention.

Provide one example of a vocabulary word learned and explain how the image helped.

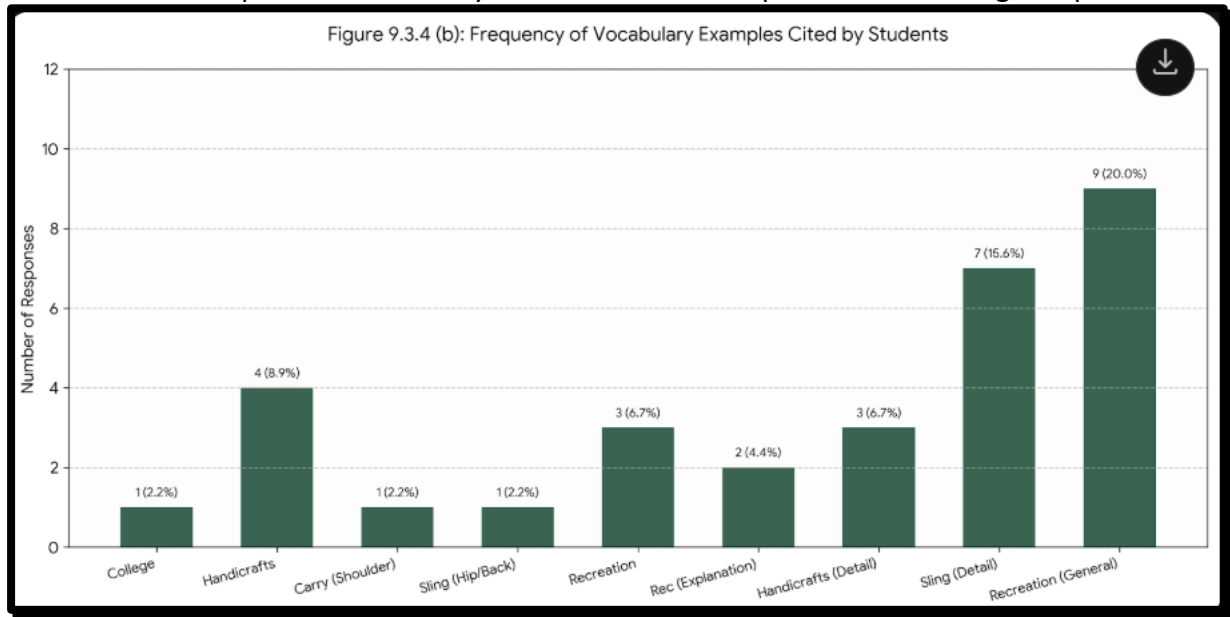


Figure 9.3.4 (b): Vocabulary Examples Cited by Students

The qualitative data in Figure 9.3.4 (b) indicate that integrating visual aids significantly strengthens vocabulary acquisition and long-term recall. Participants demonstrated a consistent ability to retrieve specific lexical items introduced during the intervention, with the most frequent citations being *riadah* (recreation), *kraftangan* (handicraft), and the distinct action verbs *mengendong* (carrying on the back/hip) and *memikul* (carrying on the shoulder). These results suggest that pictorial prompts provide a concrete reference point that resolves lexical ambiguity, enabling learners to distinguish between physically similar actions that are often conflated in traditional translation or text-heavy definitions.

When participants articulated why these materials were effective, they consistently identified color and clarity as the primary functional attributes. The pictorial precision offered by these features allowed successful semantic discrimination, proving that these attributes serve a vital cognitive purpose rather than a purely decorative one. By facilitating a more direct mapping between a word and its real-world application, pictorial scaffolding acts as a conceptual anchor for culturally specific or technical terms. This process aligns with Dual Coding Theory, where the simultaneous activation of verbal and non-verbal pathways creates a more resilient memory trace. Ultimately, these findings indicate that pictorial integration is a necessary pedagogical intervention that clarifies linguistic details and improves the overall depth of vocabulary mastery among language learners.

Are you more excited and interested in learning vocabulary through the use of pictures in class?

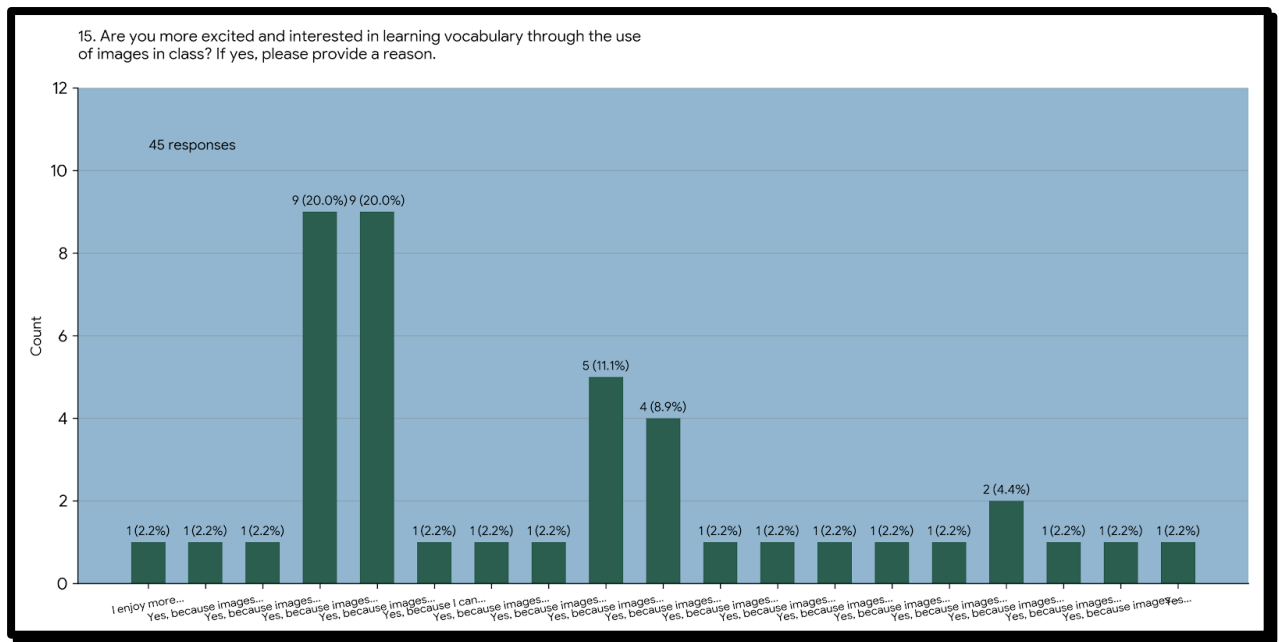


Figure 9.3.4 (c): Student Interest and Enjoyment in Class

The empirical data delineated in Figure 9.3.4 (c) demonstrate that the vast majority of the 45 participants expressed interest and enjoyment in vocabulary classes using pictorial aids. Qualitative feedback indicates that the primary rationale for this elevated engagement was the strategic use of vibrant colors and engaging characters congruent with the vocabulary context.

Theoretically, this induced positive affective state, precipitated by visually stimulating instructional materials, serves to critically lower the learners' "affective filter," thereby optimizing the cognitive environment for effective language acquisition. This outcome aligns seamlessly with the premise that the introduction of pictorial stimuli functions as a "psychological safety net," mitigating the high anxiety frequently experienced by non-native learners in vernacular settings.

Furthermore, the heightened affective response corroborates the findings of Tan Wei Leng and Suriani Md Noor (2020), which postulate that image-based interventions act as powerful motivational catalysts, encouraging active participation among non-native Malay speakers. Consequently, the data substantiates that the integration of colored imagery transcends superficial aesthetic appeal; it executes a vital dual function by capturing student attention and sustaining cognitive focus throughout the pedagogical process.

Section E: Suggestions and Improvements

In this final phase of our data collection, we invited participants to offer their own perspectives on how the pictorial intervention could be refined for future use. Interestingly, our data showed a complete absence of specific critical suggestions from the students, which we interpret as a high level of satisfaction with the current model. This lack of suggested changes suggests that the students found the visual format both accessible and inherently more engaging than the traditional methods they were accustomed to. Reflecting on the process from a researcher's lens, however, we recognize a clear opportunity for growth regarding the study's timeline. A critical recommendation for future research is the extension of the longitudinal duration. By expanding the study period, we could implement a delayed

post-test, perhaps one month following the intervention, to rigorously assess long-term vocabulary retention. This would provide the necessary empirical evidence to confirm that the observed lexical gains represent permanent cognitive acquisition rather than merely transient, short-term recall.

Summary of Survey Findings

Our analysis of the survey data reveals a compelling convergence between the students' subjective experiences and the objective performance gains recorded in the pre- and post-tests. This alignment is first evidenced by the fact that 91.1% of participants (Figure 9.3.4 a) explicitly credited pictorial aids with facilitating their grasp of new vocabulary. This overwhelming student consensus directly mirrors the 31-percentage-point improvement in test scores, suggesting that the students' internal perception of their learning was highly accurate. Beyond the percentages, the qualitative depth of the survey was particularly telling. We found that every single participant was able to successfully identify and list at least one new lexical item acquired during the intervention cycle. The high frequency with which students cited nuanced action verbs specifically *mengendong* (carrying on the back/hip) and *memikul* (carrying on the shoulder) alongside academic nouns such as *kerpasan* (precipitation) and *kraftangan* (handicraft) is a significant finding. It demonstrates that our intervention did not merely assist with basic terminology; rather, it successfully targeted the higher-order, specialized vocabulary often found in secondary-level academic texts that students previously found inaccessible.



Figure 9.3.6 (a): Pictorial aids and lexical items most commonly cited by students in the survey.

Discussion

Our findings substantiate the efficacy of pictorial interventions in facilitating Malay vocabulary acquisition among Form 2 Harmoni students at Sekolah Menengah Tinggi Hin Hua. The positive impact of this strategy is empirically supported by our comparative analysis of pre- and post-test data. While 24 out of the 45 participants (53.3%) demonstrated a direct numeric increase in their scores, we observed that the intervention also played a critical role in stabilizing the performance of high-achieving students who maintained their baseline proficiency. This statistical shift indicates that the majority of our student population derived a tangible academic benefit from visual-based pedagogy. These results align closely with contemporary research in second language acquisition. Specifically, Tan and Lim (2024) highlighted the success of pictorial interventions in enhancing vocabulary retention among primary learners. Our study extends this theoretical framework to the secondary school setting, where 91.1% of our students explicitly acknowledged that images facilitated a

deeper, more intuitive understanding of new vocabulary. Before our intervention, the students' mastery of Malay was categorized at a low proficiency level (Level 2 to Level 3) by the subject teacher. We successfully catalyzed a measurable improvement in vocabulary mastery for over half of the cohort. This quantitative gain is further reinforced by the qualitative feedback from our post-intervention survey, where students attributed their improved comprehension to the clarity provided by visual stimuli.

Notably, students expressed a distinct preference for colored imagery (64.4%) and cartoons (44.4%), confirming that visual attributes like color and animation are pivotal in sustaining learner engagement. Beyond the numbers, the intervention yielded significant improvements in cognitive retention and semantic comprehension. We were encouraged by the students' ability to recall and articulate specialized lexical items during the survey. Frequently cited words included academic nouns like *riadah* (recreation), *kerpasan* (precipitation), and *kraftangan* (handicraft). Crucially, the pictorial aids allowed students to distinguish between nuanced action verbs, such as *memikul* (carrying on the shoulder) and *mengendong* (carrying on the back/hip), which are often conflated in traditional text-heavy definitions. This shift in classroom dynamics, where students transitioned from passive listeners to active, confident participants, is consistent with the findings of Tan Wei Leng and Suriani Md Noor (2020). Our observational data confirms that the use of images served as a "psychological safety net," making students more courageous in responding to classroom activities. In conclusion, our pictorial intervention did more than just remediate vocabulary deficits; it significantly amplified student engagement within the Teaching and Learning (PdP) process, creating a more inclusive and effective linguistic environment.

Ethical Considerations

We conducted this research in strict adherence to established ethical protocols, prioritizing the protection and dignity of all participants. Before the study commenced, we secured formal institutional approval from the administration of Sekolah Menengah Tinggi Hin Hua. Participation was entirely voluntary, and we ensured that informed consent was obtained from all parties involved before any data collection. To safeguard participant privacy and maintain the integrity of our data, we implemented rigorous anonymity and confidentiality measures. Specifically, we excluded all personal identifiers such as student names and contact numbers from the collection and reporting processes to ensure that individual responses cannot be traced back to the participants. Furthermore, the study was carried out under the direct supervision of an accredited academic advisor to guarantee transparency and full compliance with the research ethics guidelines mandated by the Ministry of Higher Education (MOHE).

Conclusion

In closing, our research confirms that the integration of pictorial stimuli is more than just a supplementary aid; it is a transformative pedagogical strategy for the acquisition of Malay vocabulary. The findings clearly demonstrate that visual scaffolding serves as a vital cognitive bridge, significantly enhancing mnemonic retention and facilitating a deeper semantic understanding among non-native learners. We found this approach to be remarkably versatile, as it accommodated diverse learning styles and successfully expedited lexical gains for students who had previously struggled with limited linguistic proficiency. However, to maximize this pedagogical efficacy, we emphasize that educators must be intentional in

curating images that are both visually distinct and contextually grounded in the students' real-world experiences. While static imagery provided a strong foundation in this study, we recommend that future implementations consider augmenting these visuals with interactive elements, such as gamified quizzes, to further sustain student engagement and achieve optimal learning outcomes. Ultimately, by moving beyond traditional rote-learning methods, we can ensure that vocabulary acquisition for non-native speakers is not merely a transient exercise in memorization but a permanent cognitive achievement.

Acknowledgement

The authors express their gratitude to UNITAR International University for the support of this research.

References

- Abdullah, M., & Yusof, N. (2023). The role of visual aids in second language vocabulary acquisition: A study on Malay language learners. *International Journal of Applied Linguistics*, 28(1), 45–62.
- Adon, H. B., & Che Rodi, R. (2021). Penguasaan morfologi pelajar Cina dalam pembelajaran Bahasa Melayu tahap 2 di daerah Asajaya. *Jurnal Pendidikan Bahasa Melayu*, 11(2), 20–32.
- Gatanagayan, T., & Amzah, F. (2021). Modul Kadimel: Reka bentuk pembangunan modul pembelajaran kosa kata yang lebih afdal. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(12), 109–124. <https://doi.org/10.47405/mjssh.v6i12.1184>.
- Jamain, N. (2023). *Penguasaan kosa kata Bahasa Melayu dalam kalangan pelajar antarabangsa di Universiti Malaya* [Doctoral dissertation, Universiti Malaya].
- Jamain, N., Yahaya, S. R., & Hussin, M. S. H. (2022). Strategi pembelajaran kosa kata Bahasa Melayu dalam kalangan pelajar antarabangsa di Universiti Malaya. *Jurnal Pendidikan Bahasa Melayu*, 12(2), 125–134. <https://spaj.ukm.my/jpbm>.
- Kemmis, S., & McTaggart, R. (1988). *The action research planner* (3rd ed.). Deakin University Press.
- Robin, P. A., Hamzah, M., & Pandang, M. (2020). Penguasaan kosa kata Bahasa Melayu kanak-kanak Iban melalui lagu Didi & Friends. *Jurnal Pendidikan Awal Kanak-kanak Kebangsaan*, 9(Special Issue), 41–51. <https://ejournal.upsi.edu.my/journal/JPAK>.
- Tan, C. H., & Lim, S. K. (2024). Enhancing Malay vocabulary retention through pictorial interventions: Evidence from primary school learners. *Proceedings of the Asia-Pacific Conference on Education and Training*, Singapore.
- Tan, W. L., & Suriani, M. N. (2020). Keberkesanan penggunaan gambar dalam pengajaran dan pembelajaran Bahasa Melayu di Sekolah Jenis Kebangsaan Cina. *Jurnal Pendidikan Bahasa*, 10(2), 78–90.
- Wahab, U. A., Pa, M. T., & Asbulah, L. H. (2021). Saiz kosa kata dan pengetahuan kolokasi Bahasa Arab dalam kalangan pelajar Sijil Tinggi Agama Malaysia (STAM). *Issues in Language Studies*, 10(1), 183–202. <https://doi.org/10.33736/ils.2794.2021>.