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Beyond Memorization: Integrating Archery into Arabic Vocabulary Instruction

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Abstract: Many students struggle with Arabic vocabulary because memorization-heavy instruction feels monotonous and often neglects the cognitive, affective, and psychomotor dimensions of learning, which can undermine motivation and engagement. This study responds by integrating archery into vocabulary instruction, using Bloom's taxonomy to examine learning across those three domains. The study involved 25 tenth graders at Daarut Tauhid High School, Bandung, using a descriptive quantitative case study design. Data were collected through questionnaires and classroom observations, then analyzed using descriptive statistics and thematic analysis. The archery-based method scored an overall feasibility of 85.4% which is categorized as "very feasible". The reported benefits were clustered into three domains: cognitive (vocabulary understanding, retention and application), psychomotor (focus, coordination and readiness to learn) and affective (motivation, confidence and enthusiasm). The novelty of this study lies in integrating archery as a sport-based activity into Arabic vocabulary instruction and examining its educational potential across the cognitive, affective, and psychomotor domains of Bloom's taxonomy. By extending vocabulary learning beyond conventional memorization, the study offers an alternative approach to Arabic language teaching and provides preliminary evidence of the feasibility and potential value of combining physical activity with language learning.

INTRODUCTION

Learning Arabic at the high school level faces a variety of challenges, especially in mastering vocabulary.[1] Vocabulary has a central role in language skills, including reading, writing, listening, and speaking, which requires effective teaching strategies and an active role from educators to facilitate successful language acquisition.[2] Good mastery of vocabulary not only improves fluent communication but also strengthens understanding of Arabic texts. Vocabulary plays a central role in all aspects of language skills, including reading, writing,

[1] Rizka Andini Rachmawati and Husin Husin, "The Application of the Singing Method in Improving Arabic Vocabulary Mastery in the Nurul Jannah Orphanage," *Berajah Journal* 2, no. 2 (February 27, 2022): 223–30, https://doi.org/10.47353/bj.v2i2.81.

[2] Mahmoud Gharaibeh and Abed Alrazaq Alhassan, "Role of Teachers in Teaching Arabic Letters to Young Children of UAE: Exploring Criteria of Arabic Letters Teaching," *Cogent Education* 10, no. 1 (December 31, 2023), https://doi.org/10.1080/2331186X.2023.2191392.

listening, and speaking.[3] One factor that influences low vocabulary mastery is the learning methods applied in the classroom. Learning methods that lack variety and contextualization can make it difficult for students to relate vocabulary to real communication situations. As a result, they tend to memorize words mechanically without really understanding their meaning in various contexts of use. Therefore, a more interactive and contextual approach to learning is needed so that students can more easily remember and apply vocabulary in their language skills.

Along with the development of learning methods, various innovative approaches have been developed to overcome the challenges of mastering vocabulary. Because learning methods lack variety and contextualization make it difficult for students to relate vocabulary to real communication situations.[4] Monotonous rover-based learning often makes it difficult for students to understand and remember vocabulary in the long term.[5] One approach that has attracted attention is the integration of physical activity in the learning process.[6] Physical activity is known to have a positive impact on cognitive function, including improved concentration, memory, and problem-solving, acting as a crucial mediator in embodied learning that connects physical motorization with effective information processing.[7] An example of a form of physical activity that can be applied to learning is the archery method. Archery is not only a sport, but also an activity that demands high concentration, coordination, and perseverance. In the context of education, this physical activity is believed to stimulate students' cognitive abilities, increase focus in learning, and help overcome boredom in conventional learning methods.[8]

In analyzing the impact of the archery method on Arabic language learning, this study uses the perspective of Bloom's Taxonomy as an analytical framework. Bloom's taxonomy classifies learning objectives into three main domains, namely the cognitive domain (comprehension and processing of information), the psychomotor domain (physical skills and coordination), and the affective domain

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[3] Lili Herawati Parapat and Rahmat Huda, "Problems of Reading and Writing Skills in Indonesian Language Education Students Um-Tapsel," *Jurnal Hata Poda* 1, no. 1 (June 2, 2022): 50–59, https://doi.org/10.24952/hatapoda.v1i1.5440.

[4] Fitri Nurhayati and Irpan Hilmi, "The Effectiveness of Daily Vocabulary Debriefing on Students' Speaking Ability," *JSIM: Jurnal Ilmu Sosial Dan Pendidikan* 5, no. 5 (2024): 1012–26, https://doi.org/https://doi.org/10.36418/syntaximperatif.v5i5.523.

[5] Esthi Adhityarini, "Development of Interactive Animation-Based Qur'an Memorization Learning Media for Elementary School Children," *JISPE: Journal of Islamic Primary Education* 2, no. 2 (September 6, 2022): 69–80, https://doi.org/10.51875/jispe.v2i2.36.

[6] Ernita Pasaribu et al., "The Influence of Extracurricular Sports Programs on Students ' Learning Achievement in Primary Schools," *JICN: Jurnal Intelek Dan Cendikiawan Nusantara* Vol : 1 No, no. November (2024): 6502–8;

[7] Syifa Nur Ayuni, Dewi Dolifah, and Delli Yuliana Rahmat, "The Relationship between Physical Activity Level and Cognitive Function of Elderly Women.," *Jurnal Keperawatan Florence Nightingale* 7, no. 1 (June 29, 2024): 72–78, https://doi.org/10.52774/jkfn.v7i1.143;.

[8] Chenmu Xie and Yiyu Ouyang, "Information Presentation and Physical Motorization: The Mediating Role of Embodied Learning," *Cogent Education* 11, no. 1 (December 31, 2024), https://doi.org/10.1080/2331186X.2024.2431950

(attitude, motivation, self-confidence). A lack of active involvement in the learning process can also hinder students' ability to apply the vocabulary learned in oral and written communication.[9] This approach allows researchers to examine students' perceptions of archery-based Arabic vocabulary learning in relation to vocabulary comprehension, language use, motivation, and physical skills. Using Bloom's Taxonomy as an analytical framework, this study explores how students perceive their learning experiences across a range of relevant cognitive, affective, and psychomotor domains. Thus, this study aims to provide a descriptive understanding of students' perceptions of archery as an integrated activity in Arabic vocabulary learning at the high school level.

Although previous studies have explored the integration of physical movement[10] and embodied learning into language education,[11] the application of sport-specific activities, particularly archery, in Arabic vocabulary instruction remains insufficiently documented in the context examined by this study. Further investigation is needed into how archery-based learning activities can be implemented in secondary-level Arabic classrooms and how their educational potential can be examined across the cognitive, affective, and psychomotor domains of Bloom's taxonomy. In order to address this gap, the present study investigates the integration of archery into Arabic vocabulary learning among tenth-grade students, focusing on the feasibility of the instructional approach and its perceived contributions to students' learning experiences. The study thus offers a context-specific contribution to the exploration of physical activity as an alternative approach to Arabic vocabulary instruction.

Archery based Arabic vocabulary learning can be linked to contextual learning which involves applying theory to practice. Flashcard media has already been shown to be relevant in helping students to memorize Arabic vocabulary.[12] While flashcards and archery are very different methods, they both help to understand the potential benefits of using learning activities to learn vocabulary. This study explores how students perceive archery-based Arabic vocabulary learning. It does this by looking at how they feel it has helped them understand and remember vocabulary, while exploring how it has motivated them and helped them concentrate and coordinate.

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[9] Yacinta Yuniarti Endah Puspayanti, Khusnul Fajriyah, and Mei Fita Asri Untari, "Analysis Of Vocabulary Mastery In English Subjects In Grade V Students Of Sd Muhammadiyah Blora.," *Indonesian Journal of Elementary School* 4, no. 2 (November 29, 2024): 505–25, https://doi.org/10.26877/ijes.v4i2.20630.

[10] Carlos Martin-Martinez et al., "School-Based Physical Activity Interventions and Language Skills: A Systematic Review and Meta-Analysis of Randomized Controlled Trials," *Journal of Science and Medicine in Sport* 26, no. 2 (February 2023): 140–48, https://doi.org/10.1016/j.jsams.2022.12.007.

[11] Sofia Jusslin et al., "Embodied Learning and Teaching Approaches in Language Education: A Mixed Studies Review," *Educational Research Review* 37 (November 2022): 100480, https://doi.org/10.1016/j.edurev.2022.100480.

[12] Nafsiah Hafidzoh Rahman et al., "The Influence of Flashcard Media in Improving Students' Memory in Arabic Mufrodat Material," *Jurnal Tahsinia* 2, no. 2 (October 30, 2021): 99–106, https://doi.org/10.57171/jt.v2i2.296.

Research exploring the integration of archery into Arabic vocabulary learning through the lens of Bloom's Taxonomy is still limited. This highlights the need to examine how students perceive these learning activities in relation to cognitive, affective, and psychomotor aspects. Archery involves concentration, coordination, and perseverance, making it a potentially relevant activity to explore in language learning. Therefore, this study focuses on students' perceptions of archery-based Arabic vocabulary learning, in particular their reported experiences related to vocabulary comprehension, learning motivation, and physical skills. Archery is not only a sport, but also an activity that demands high concentration, coordination, and perseverance, making it relevant to be promoted as a potential learning method in this context.[13]

Based on this background, this study aims to explore students' perceptions of archery-based Arabic vocabulary learning. In an educational context, this physical activity is believed to stimulate students' cognitive abilities, increase their focus on learning, and help overcome boredom in conventional learning methods.[14] Research and discussion will focus on key question: How do students view the use of archery methods in learning to memorize Arabic vocabulary from the perspective of Bloom's Taxonomy?

Based on Bloom's Taxonomy, this study examines students' perceptions of archery-based Arabic vocabulary learning through three domains: cognitive, affective, and psychomotor.[15]The cognitive domain focuses on students' perceived vocabulary comprehension and retention, while the affective domain addresses their reported motivation, interest, and concentration during learning. The psychomotor domain considers the physical coordination and controlled movements involved in archery as part of the learning activity.[16] By integrating these three domains, the study aims to provide a comprehensive descriptive understanding of students' learning experiences based on questionnaire responses. Rather than assuming that archery automatically improves vocabulary mastery, motivation, or physical skills, the study focuses on how students perceive this alternative approach to Arabic vocabulary learning.

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[13] Mohammad Bilutfikal Khofi, "Character Education in Archery Extracurricular at Ma Atqia Bondowoso," *International Conference on Humanity Education and Sosial* 3, no. 1 (2024): 1–19, https://proceedingsiches.com/index.php/ojs/article/view/186.

[14] Muhammad Akbar Syafruddin, Irvan, and M. Imran Hasanuddin, "Literature Review: The Role of Physical Activity in Improving Brain Ability and Cognitive Aspects.," *Jurnal Speed (Sport, Physical Education, Empowerment)* 6, no. 2 (December 1, 2023): 91–102, https://doi.org/10.35706/jurnalspeed.v6i2.9710.

[15] Muhammad Afif Marta, Dimas Purnomo, and Gusmameli, "Bloom's Taxonomy Concept in Learning Design," *Lencana: Jurnal Inovasi Ilmu Pendidikan* 3, no. 1 (December 2, 2024): 227–46, https://doi.org/10.55606/lencana.v3i1.4572.

[16] Anton, Muwahid Ikbal, and Fauzan Nazar, "The Impact of Archery Extracurricular Activities on Students' Development and Physical Health," *Jurnal Media Akademik (JMA)* 3, no. 1 (2025): 3031–5220, https://doi.org/https://doi.org/10.62281/v3i1.1486.

METHODS

This study used a descriptive quantitative approach to explore students' perceptions of the use of archery methods in learning Arabic vocabulary. This approach was chosen because it allowed researchers to describe students' responses and identify common patterns in their perceptions of activity-based learning. This research was conducted at Darut Tauhid High School in Bandung, West Java, Indonesia. The study participants consisted of 25 tenth grade students. The selection of participants was based on their involvement in Arabic language learning and their experience in archery-based learning activities.

Data were collected through a questionnaire consisting of 20 statements designed to describe students' perceptions, experiences, and responses to the use of archery in learning Arabic vocabulary. The questionnaire used a four-point Likert scale with four response categories: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The questionnaire data was processed using descriptive statistics.

The analysis was carried out through the calculation of the percentage and frequency of distribution of each statement. This step aims to identify the tendency of students' perception towards archery-based Arabic vocabulary learning. The findings obtained will then be dissected through 3 domains of Bloom's taxonomy, namely cognitive, affective, and psychomotor, utilizing analytical procedures commonly applied to evaluate educational phenomena.[17] The analysis is intended purely to describe the subjective experience of the respondents. Therefore, the limitations of the study focus entirely on the perception of vocabulary memorization, without evaluating other components of Arabic such as grammar rules, pronunciation articulation, reading ability, and effectiveness.

The questionnaire data will be processed using descriptive statistics by calculating the frequency value and percentage of each item/statement item. The percentage calculation is carried out by dividing the number of responses per category with the total number of respondents being 25, then multiplied by 100%. In order to map the general tendency of students' perceptions, there are 4 choice options in the questionnaire, which are then differentiated into positive options and negative options. In general, the distribution of answers shows a tendency to have a positive perception of archery-based learning of Arabic vocabulary. In point 15 regarding Arabic reading comprehension, all respondents (100%) gave a positive answer by choosing Strongly Agree or Agree. A high level of positive acceptance was also seen in points 9, 10, 13, and 19 which reached 92%, respectively. On the other hand, the lowest proportion was recorded in point 5

[17] Marinu Waruwu, "Qualitative Research Approach: Concepts, Procedures, Advantages and Roles in the Field of Education.," *Afeksi: Jurnal Penelitian Dan Evaluasi Pendidikan* 5, no. 2 (April 16, 2024): 198–211, https://doi.org/10.59698/afeksi.v5i2.236.

regarding the motivation to learn Arabic vocabulary, which was 68% positive responses and the remaining 32% stated disagreement. This data is limited to reflecting the subjective views of students during the learning process, so it cannot be used alone to claim an increase in vocabulary mastery.

RESULTS AND DISCUSSION

The results of the questionnaire describe students' perceptions of archery-based Arabic vocabulary learning. The questionnaire consisted of 20 statements answered by 25 tenth-grade students. The statements covered three domains considered in this study: cognitive, affective, and psychomotor.

Table 1. Frequency and Distribution of Student Questionnaire Answer Percentage

No	Questionnaire items/aspects	Strongly agree (%)	Agree (%)	Disagree (%)	strongly disagree (%)
1	Understand vocabulary while listening to explanations	40	40	20	0
2	Concentration while listening to explanations	40	40	20	0
3	Perceived speed in learning new vocabulary	36	52	12	0
4	Confidence in speaking Arabic	40	44	16	0
5	Motivation to learn Arabic vocabulary	24	44	32	0
6	Interest and involvement in vocabulary learning	32	52	16	0
7	Perception of motor skills, speed, and accuracy	36	48	16	0
8	Ease of memorizing Arabic vocabulary	40	36	24	0
9	Long-term vocabulary retention	32	60	8	0
10	Understanding vocabulary in conversation	40	52	8	0
11	Understanding vocabulary while listening to teachers	24	60	16	0
12	Using vocabulary learned in everyday conversation	20	48	28	4
13	Confidence in speaking after understanding vocabulary	24	68	8	0
14	Recognize and understand vocabulary in written text	20	68	12	0
15	Understand Arabic reading after learning vocabulary	48	52	0	0
16	Memorizing and remembering Arabic vocabulary	32	60	8	0
17	Write sentences or paragraphs using vocabulary that you have learned	28	56	16	0
18	Using vocabulary learned to write	20	76	4	0
19	Hand-eye coordination	28	64	8	0
20	Interest and enthusiasm for learning through archery	24	64	12	0

Table 1 presents the distribution of students' responses to the 20 questionnaire statements. To illustrate the general tendencies of the responses, the percentage of Strongly Agree and Agree responses were combined to identify the proportion of students who responded positively to each statement. The results varied across items, reflecting students' differences in perceptions of the cognitive, affective, and psychomotor aspects of archery-based Arabic vocabulary learning.

First, cognitive domain**.** The cognitive domain includes students' perceptions of vocabulary comprehension, memorization, memory, and the use of Arabic vocabulary in reading, speaking, and writing. Responses show varying levels of agreement in all of these aspects.

For Point 1, 80% of students agreed or strongly agreed that archery-based learning helped them understand Arabic vocabulary while listening to explanations, while 20% disagreed. For Point 3, 88% responded positively to the statement regarding the perception of the speed of learning new vocabulary. Meanwhile, 76% responded positively to Point 8, which discussed vocabulary memory in the long term. Positive responses were also observed for vocabulary comprehension in conversation and during listening activities. Items 10 and 11 received a positive response of 92% and 84%, respectively. For the application of vocabulary, 68% of students responded positively to Item 12 regarding the use of vocabulary learned in everyday conversation, while 28% disagreed and 4% strongly disagreed.

Regarding reading and writing, Item 14 received 88% of positive responses, while Item 15 received 100%. The latter had to do with the ease with which students understood Arabic reading after learning vocabulary. Additionally, Points 16, 17, and 18 received 92%, 84%, and 96% of responses, respectively. These items discussed remembering vocabulary, writing sentences or paragraphs, and using vocabulary learned in written work. Overall, responses showed that students generally reported positive perceptions of some aspects of vocabulary comprehension and use, although responses related to everyday conversation were less favorable compared to reading and writing works. These findings further emphasize the effectiveness of archery methods in improving students' cognitive aspects, especially in understanding, memorizing, and applying vocabulary in various contexts.[18]

Second, affective domain. The affective domain includes students' concentration, confidence, motivation, interest, and enthusiasm reported during archery-based Arabic vocabulary learning. Responses showed that students' perceptions varied in these various aspects. For Point 2, 80% of students agreed or

[18] Taufik Taufik et al., "Learning Elements of Arabic (Mufradat and Qawaid) with the Application of Flashcard Learning Strategies in Class V Madrasah Ibtidaiyah (MI)," *Diwan: Jurnal Bahasa Dan Sastra Arab* 15, no. 1 (July 13, 2023): 58–73, https://doi.org/10.15548/diwan.v15i1.1090.

strongly agreed that they felt more focused when listening to an explanation of Arabic vocabulary using the archery method, while 20% disagreed. Point 4, which relates to confidence in speaking Arabic, received 84% positive responses. Point 5, which addressed motivation to learn Arabic vocabulary, received 68% positive responses, while 32% of students disagreed.

In terms of interest and engagement, Item 6 received 84% positive responses. Item 9, which relates to concentration during vocabulary learning activities, received 92% positive responses. Similarly, 92% of students responded positively to Item 13, which relates to confidence in speaking Arabic after understanding vocabulary. Item 20, which relates to interest and enthusiasm for learning through archery-based activities, received 88% positive responses. These findings show that many students report positive perceptions of concentration, confidence, and engagement. However, responses to Item 5 suggest that positive perceptions of learning motivation are not shared by all respondents.

Third, psychomotor domain. The psychomotor domain focuses on students' perceptions of motor skills, body movements, and hand-eye coordination related to archery-based learning. Two questionnaire statements address these aspects. For Post 7, 84% of students agreed or strongly agreed that their motor skills, including speed and accuracy, have improved after participating in learning activities, while 16% disagreed. Point 19, which pertains to body movements and hand-eye coordination, received 92% positive responses, while 8% disagreed. These responses suggest that most students view the physical aspects of archery activities positively. However, the findings reflect self-reported perceptions by students, not direct measurements of changes in motor skills or coordination.

Overall, the results of the questionnaire showed generally favorable student perceptions in the three domains considered in this study. In the cognitive domain, the highest proportion of positive responses was found for item 15, with 100% of students agreeing or strongly agreeing with statements about understanding Arabic reading after learning vocabulary. In the affective domain, items 9 and 13 received 92% of positive responses, respectively, while item 5 received the lowest proportion of positive responses in the domain, which was 68%. In the psychomotor domain, item 19 received 92% of positive responses.

Despite the majority of positive responses to many statements, some students reported disadvantaged experiences, especially related to motivation and vocabulary use in everyday conversations. These findings provide a descriptive picture of students' perceptions of archery-based Arabic vocabulary learning and form the basis for further discussion of the cognitive, affective, and psychomotor aspects discussed in the questionnaire.

The results of the questionnaire on the integration of archery in learning showed a positive response. Respondents as a whole (100%) agreed that memorizing vocabulary with this activity was easier. They also had an easier time understanding Arabic reading texts after the activity. As many as 92% of students responded positively to aspects of confidence, vocabulary memory, and physical coordination. The lowest number, which was 68%, appeared in the aspects of learning motivation and the use of vocabulary in daily activities. This shows that students are more helped in mastering and understanding vocabulary through archery activities. However, it is still not possible to encourage students to actively use it outside of activities to the maximum.

In the cognitive domain, students showed positive perceptions of comprehension, memorization, and vocabulary use in reading and writing. Physical activity in archery provided students with a context to relate vocabulary to direct experience, and this was in line with the idea of experiential learning, which emphasizes that direct practical involvement significantly enhances student competency and concept mastery.[19] However, the results of the questionnaire only described how students viewed their learning experiences, not evidence that archery improved memorization or vocabulary mastery.

These findings are related to previous research on physical activity related to memory and concentration. Physical activity opens up a way of interacting with material that is different from conventional classroom activities. In this study, students' responses provide a descriptive overview of their views on archery-based vocabulary learning. However, this study does not use comparative classes as well as pre-test and post-test. Therefore, archery cannot be concluded as a method that produces better learning outcomes than other methods.

In the affective realm, the questionnaire measured students' concentration, confidence, interest, motivation and enthusiasm. Most students had a positive response to statements about concentration and confidence. In the aspect of motivation, the results were also mixed: 68% of students responded positively, while 32% disagreed. This difference shows that students do not feel that learning activities with archery are the same as learning in the classroom conventionally. Archery based learning does offer an activity-oriented experience. However, in this finding, this data is not enough to conclude that the archery method increases the motivation of all students.

In the psychomotor realm, the questionnaire asks about students' physical movements and coordination. Most students have a positive response to hand-eye coordination. This is relevant to archery because this activity requires coordinated

[19] Abdul Hasan Saragih et al., "Kolb Learning Experience Model And Student Competency Ability.," *Jurnal Teknologi Informasi & Komunikasi Dalam Pendidikan* 11, no. 2 (June 26, 2025): 78–84, https://doi.org/10.24114/jtikp.v11i2.66792.

movements and focused attention. Even so, these findings cannot be read as evidence if there is an improvement in motor skills. This is because the data comes from questionnaire answers, not from direct physical performance assessments.

Previous studies provide a foundation for discussing archery-based Arabic vocabulary learning as an alternative instructional approach. Padyah, Sa'odah, and Nurfadillah found that the Make a Match method assisted by flashcard media significantly influenced students' Arabic vocabulary memorization, highlighting the importance of interactive learning strategies.[20] Similarly, Huda and Akbar examined calligraphy learning through the revised Bloom's Taxonomy, demonstrating its relevance to the cognitive, affective, and psychomotor domains.[21] These studies are relevant to the present research because archery-based Arabic vocabulary learning also combines active participation, cognitive engagement, and physical activity. However, unlike matching activities and calligraphy, archery requires physical movements that must be integrated meaningfully with vocabulary instruction. Therefore, the present study extends the discussion of innovative Arabic learning approaches by exploring students' perceptions of archery-based vocabulary learning, particularly regarding their reported experiences of vocabulary memorization, motivation, and engagement, without assuming that the approach necessarily improves learning outcomes.

The findings of this study also can be discussed through Bloom's Taxonomy, which provides a framework for understanding learning objectives across the cognitive, affective, and psychomotor domains. These domains offer complementary perspectives for examining students' perceptions of archery-based Arabic vocabulary learning. The cognitive domain concerns mental processes involved in remembering, understanding, applying, analyzing, evaluating, and creating, whereas the affective domain relates to attitudes, interests, motivation, and values. The psychomotor domain focuses on physical skills and coordinates movements.[22] These domains provide a conceptual basis for interpreting students' reported learning experiences without assuming that participation in archery necessarily leads to measurable improvements in vocabulary mastery or physical performance.[23]

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[20] Padyah Padyah, Sa'odah Sa'odah, and Septy Nurfadillah, "The Effect of the Make A Match Method Assisted by Flashcard Media in Arabic Learning on Vocabulary Memorization Ability in Grade III Students of MI Salafiyah Sidorejo Warungasem Batang for the 2022/2023 Academic Year," *ANWARUL* 2, no. 4 (August 16, 2022): 349–56, https://doi.org/10.58578/anwarul.v2i4.514.

[21] Nurul Huda and Fadhel Izanul Akbar, "Analysis of Calligraphy Learning in the Perspective of the Bloom-Revised Taxonomic Domain," *Al Mahāra: Jurnal Pendidikan Bahasa Arab* 8, no. 2 (December 29, 2022): 293–318, https://doi.org/10.14421/almahara.2022.082-06.

[22] Hani Hikmatunnisa, Zahra Khusnul Lathifah, and Sobrul Laeli, "The Role Of Teachers In The Application Of Experiential Learning Learning Methods To Increase The Activeness Of Bangkok Thailand" *Al-Kaff: Jurnal Sosial Humaniora* 2, no. 6 (December 31, 2024): 585–95, https://doi.org/10.30997/alkaff.v2i6.15654.

[23] Parapat and Huda, "Problems of Reading and Writing Skills in Indonesian Language Education Students Um-Tapsel."

From the cognitive perspective, vocabulary acquisition is a fundamental component of Arabic language learning.[24] Vocabulary knowledge supports the development of listening (*istimāʿ*), speaking (*kalām*), reading (*qirāʾah*), and writing (*kitābah*) skills. Students with limited vocabulary may experience difficulties understanding Arabic texts and expressing ideas effectively.[25] Previous studies have also emphasized the contribution of vocabulary mastery to language proficiency and the importance of appropriate learning media in supporting vocabulary acquisition.[26] In this context, archery-based vocabulary learning provides an alternative learning experience in which students encounter vocabulary within an activity that differs from conventional classroom instruction. The combination of vocabulary learning and physical participation may provide opportunities for students to associate linguistic information with concrete experiences. Nevertheless, the extent to which this approach supports vocabulary retention and comprehension should be interpreted in relation to students' reported perceptions rather than assumed improvements in their actual learning outcomes.

The affective domain provides another perspective for understanding students' experiences of archery-based Arabic vocabulary learning. Students' attitudes, interests, motivation, and willingness to participate are important considerations when examining activity-based learning. Unlike learning activities that primarily involve listening to explanations or completing written exercises, archery introduces a practical component that may offer a different learning atmosphere. Such experiences may influence how students perceive the learning process, particularly in terms of interest, concentration, and engagement. Research on experiential learning has highlighted the importance of active student participation in learning activities. Similarly, movement-based learning has been discussed as a potential means of supporting learning motivation through direct involvement in instructional activities.[27] These perspectives provide a basis for interpreting students' questionnaire responses concerning their motivation and engagement. However, positive perceptions of an activity should not automatically be interpreted as evidence of increased motivation over time or improved academic achievement.

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[24] Nur Istiqlal Amir, Bachtiar Syamsuddin, and Nurming Saleh, "Mastery of Arabic Vocabulary of High School Students in Takalar Regency.," *PINISI ; Journal of Art, Humanity and Social Studies* 4, no. 1 (2024): 277–83.

[25] Lutvi Ali Sahana Anggian, "Arabic Vocabulary Learning Media in the Digital Era," *Mahira* 2, no. 2 (December 31, 2022): 137–50, https://doi.org/10.55380/mahira.v2i2.386.

[26] Novien Rialdy and M. Irvan Maulana, "Effective Strategies of Learning Media in Mastering Arabic Vocabulary," *Dinamika Pembelajaran : Jurnal Pendidikan Dan Bahasa* 2, no. 1 (December 26, 2024): 185–203, https://doi.org/10.62383/dilan.v2i1.1144.

[27] Enung Nugraha et al., "Increasing Learning Motivation with a Motor Skills Learning Model in Kampung Santri Ciceri Jaya," *Ar-Risalah: Media Keislaman, Pendidikan Dan Hukum Islam* 19, no. 1 (2021): 111, https://doi.org/10.29062/arrisalah.v19i1.572.

The psychomotor domain is also relevant because archery requires coordinated physical movements, postural stability, balance, and controlled actions.[28] These characteristics distinguish archery-based learning from approaches that rely exclusively on verbal explanations or written exercises. Through participation in archery, students engage in physical actions that may make the learning experience more interactive and experiential. Previous discussions of kinesthetics intelligence and experiential learning have emphasized the relevance of physical engagement and practical experience in educational activities.[29] These perspectives help explain why the psychomotor domain is appropriate for discussing archery as a learning context. Nevertheless, the present study focuses on students' perceptions of archery-based Arabic vocabulary learning rather than direct assessments of motor coordination, balance, or archery proficiency. Therefore, the psychomotor domain should be understood as a conceptual dimension of the learning activity, not as evidence that students' physical abilities improved because of participation.

The relationship between physical activity and cognitive processes further contextualizes the use of archery in vocabulary learning. Previous literature has discussed associations between physical activity and cognitive functions, including memory, attention, and information processing.[30] Movement-based learning has also been proposed as a way to connect abstract concepts with physical experiences. However, the successful implementation of such embodied learning heavily depends on how teachers interpret and seamlessly integrate these physical actions into their pedagogical practices.[31]

In language education, the Total Physical Response (TPR) approach illustrates how bodily movements can be associated with the comprehension of words and instructions. Research on TPR has examined its potential contribution to students' mastery of Arabic vocabulary.[32] These approaches provide a theoretical basis for considering physical engagement as a possible complement to conventional vocabulary instruction. However, archery-based learning differs from TPR because its primary physical actions are not necessarily direct representations of the meanings of the vocabulary being learned. Consequently,

[28] Syafruddin, Irvan, and Hasanuddin, "Literature Review: The Role of Physical Activity in Improving Brain Ability and Cognitive Aspects."

[29] Agus Syukur, "Kinesthetic Intelligence in an Islamic Perspective.," *Misykat Al-Anwar Jurnal Kajian Islam Dan Masyarakat* 7, no. 2 (June 11, 2024): 119–34, https://doi.org/10.24853/ma.7.2.119-134.

[30] Syafruddin, Irvan, and Hasanuddin, "Literature Review: The Role of Physical Activity in Improving Brain Ability and Cognitive Aspects."

[31] Nugraha et al., "Increasing Learning Motivation with a Motor Skills Learning Model in Kampung Santri Ciceri Jaya"; Andrew Manches et al., "Challenges of Translational Education Research: Teachers' Interpretations of Embodied Learning," *Cogent Education* 12, no. 1 (December 31, 2025), https://doi.org/10.1080/2331186X.2025.2490443.

[32] Nur Ismaliza et al., "The Effectiveness of the Implementation of the Total Physical Response (TPR) Method to Improve the Mastery of Mufradat of Grade V Students of SD Babussalam Pekanbaru.," *Global Perspectives in Education Journal* 1, no. 1 (May 22, 2025): 25–34, https://doi.org/10.64008/w3jc1405.

the potential contribution of archery may depend on how effectively the instructor integrates vocabulary presentation, practice, and review into the activity.

The use of archery can also be discussed in relation to contextual and experiential learning. Experiential learning emphasizes the role of direct participation and reflection in connecting learning experiences with conceptual understanding.[33] In archery-based Arabic vocabulary learning, the physical activity may provide a distinctive context in which students encounter and practice vocabulary. This approach may create opportunities to associate words with the learning situation, potentially making the learning process more meaningful.

Previous research on flashcard-based Arabic vocabulary instruction has highlighted the relevance of learning media in supporting students' memory of vocabulary.[34] Although flashcards and archery represent different instructional approaches, both can be discussed in terms of how learning materials are presented and how students interact with them. The comparison suggests that vocabulary instruction can incorporate a range of learning experiences, but the effectiveness of each approach depends on its implementation and the learning outcomes being assessed.

All these aspects: the cognitive, affective, and psychomotor domains provide a multidimensional framework for interpreting students' perceptions of archery-based Arabic vocabulary learning. The cognitive domain helps contextualize students' reported experiences of remembering and understanding vocabulary, while the affective domain provides a perspective on their motivation, interest, and engagement. The psychomotor domain highlights the physical characteristics of archery, including coordination, balance, and controlled movement. The integration of these perspectives offers a broader understanding of how students experience a learning activity that combines language instruction with physical participation.

However, the three domains should not be treated as evidence of equivalent improvements in learning, motivation, and physical performance. Rather, they serve as complementary analytical perspectives for interpreting the questionnaire responses and situating the study within the broader literature on vocabulary learning, physical activity, and experiential education. Future research could strengthen this discussion by combining students' perceptions with objective measures of vocabulary retention, delayed recall, motivation, and motor

[33] Wifqi Rahmi, "Analytical Study of Experiential Learning: Experiential Learning Theory in Learning Activities," *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran* 5, no. 2 (October 22, 2024): 115–26, https://doi.org/10.62775/edukasia.v5i2.1113.

[34] Rahman et al., "The Influence of Flashcard Media in Improving Students' Memory in Arabic Mufrodat Material."

performance to determine whether archery-based vocabulary learning produces measurable educational benefits.

This research has several limitations. First, the study was conducted in one school with 25 students. Therefore, the results are difficult to generate to other schools. Second, the data comes from questionnaires filled out by the students themselves. This results in what is depicted in this study is perception, not results that are directly measured. Third, there are no other classes as comparisons as well as pre-tests and post-tests. Therefore, changes such as vocabulary mastery cannot be examined. Therefore, these findings need to be read as a description, not as evidence of the effectiveness of archery-based learning.

Further research can involve many participants from various schools so that the picture of student perception is broader. Archery based learning can also be compared with other activity-based activities or learning accompanied by a direct assessment of Arabic vocabulary mastery. In addition, students' learning experiences can be studied for a longer period of time, with observations or interviews recorded as a complement to the questionnaire.

Overall, this study descriptively describes students' perceptions of archery-based Arabic vocabulary learning in three domains of Bloom's taxonomy, namely cognitive, affective, and psychomotor domains. Many students reported positive experiences in several aspects. Meanwhile, responses related to motivation and vocabulary use in everyday conversations were more diverse. These results can be a starting point for further investigation regarding the integration of physical activity into Arabic vocabulary learning.

CONCLUSION

This study involved 25 students in class X of SMA Daarut Tauhid Bandung who filled out a questionnaire with 20 statements about learning mufrodat with archery. The results tended to be positive. The highest response appeared in statements about Arabic reading comprehension after learning vocabulary: all students (100%) answered yes or strongly agreed. Long-term memory, confidence in speaking after understanding vocabulary, and hand-eye coordination were each answered positively by 92% of students. The lowest number was in two things, namely learning motivation and the use of vocabulary in daily conversations, both of which were 68%. The use of vocabulary in writing was actually higher (84% and 96%). This means, according to students, archery is the most helpful to understand the reading and remember vocabulary, but it is not strong enough to encourage them to use it in conversation or maintain the spirit of learning. These findings only illustrate the views of students. The data came from a questionnaire, not a vocabulary test, only from one school, and without a comparative class. Therefore, this study cannot answer whether archery really

improves vocabulary mastery. The next study needs to add tests before and after activities and comparative classes.

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