Exploring Games to Enhance Arabic Morphology Learning

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Abstract
The difficulty in mastering Arabic morphology is the main obstacle for students in acquiring the four main Arabic language skills: reading, writing, speaking, and listening. However, learning Arabic morphology heavily depends on the strength of memory to memorize the numerous word patterns. Relying solely on memorization techniques can lead to confusion and misinterpretation in understanding the context of sentences. This study aims to discuss aspects of memorization and the integration of games in learning Arabic morphology. This study is a literature review through content analysis and described descriptively. The findings show that previous studies on the use of games in learning have a positive impact on students' cognitive, behavioural, interest, and motivation aspects. The literature review also found that the integration of games in learning can help reinforce memorization and facilitate students' understanding. The implications of this study are expected to open opportunities for educators to explore the dimension of games in learning to be adopted in the teaching and learning of Arabic morphology.

Keywords: Arabic morphology, memorization technique, games

Introduction

Arabic morphology, also known as the *Ilm al-sarf*, is the foundation of the study of the formation of word patterns in the Arabic language. The Arabic word pattern system undergoes several stages of change that can create various types of word patterns. The units of word pattern fragments formed from derivational changes can produce new words with broader meanings. The complexity of Arabic morphological system is not easy to learn and master in a short period. This situation becomes even more challenging for Arabic language teachers to impart understanding to students who are less proficient in Arabic morphology, especially when faced with students who are not interested in the Arabic language. Understanding the basic concepts of word formation is crucial because the word pattern system can facilitate the learning of Arabic and enrich the mastery of Arabic vocabulary. Students' weakness in mastering Arabic morphology leads them into difficult situations, especially in understanding texts, constructing sentences, and comprehending expressions in Arabic.

Learning Arabic morphology emphasizes memorization as an initial exposure to recognizing word pattern forms. The ability to remember word patterns is the key to success in the process of learning Arabic morphology. However, long-term memory will not occur if the

initial concept of word pattern formation only emphasizes understanding the theoretical formation of word patterns. This is because theoretical understanding alone cannot sustain long-term memory when not applied. Therefore, teaching methods play an important role in learning Arabic morphology. Active student involvement in learning can stimulate students' minds through the thinking process. Asking and answering questions can help students identify existing knowledge and prepare to accept new knowledge that will be learned.

Creativity in learning can be associated with the development of materials and approaches that encourage student interest. The selection of effective teaching techniques and activities can ensure smooth learning and facilitate student understanding of the lesson content (Azani et al. 2012). The concept of learning through play is an idea that can enhance the learning experience (Experiential Learning). By incorporating entertainment elements into the Arabic morphology learning environment, a relaxed and enjoyable atmosphere can be created. Playing methods can attract interest and encourage students in learning a second language (Figueroa Flores, 2015; Simoes et al., 2013). This situation clearly demonstrates that educational pedagogy requires continuous improvement and expansion in the form of games as it can have a significant impact on teaching and learning. This study encourages researchers to identify the extent to which games in education can be applied and their implications in the context of Arabic morphology learning.

Memorization Techniques in Learning Arabic Morphology

Learning Arabic morphology always involves memorization techniques that enable students to identify the word patterns of a word. Memorization in learning Arabic morphology can facilitate students in remembering and identifying word pattern forms effectively. A significant portion of Islamic knowledge prioritizes memorization in learning, including the Quran, Hadith, poetry, tajwid, fiqh, and grammar. In the case of Hadith narration, for example, one of the mandatory conditions for a narrator is *dabit*, which means having a strong memory and retention (Ariffin & Zaini 2005; Wan Hasan et al. 2003). This shows that memorization is highly emphasized by Islam in the matter of Hadith narration and highlights the importance of memorization in the study of knowledge. Memorization techniques are also applied in various fields of education such as mathematics, science, chemistry, and economics to memorize formulas or equations. Recent studies practicing memorization techniques in learning include biochemistry and biology (Hancock et al. 2018), chemistry (Lee Tien Tien & Kamisah 2016), physics (Salmiza & Lilia 2016), music (Herrera & Cremades 2018), mathematics (Azmin & Faridatulazna 2014), and languages (Roshidah 2017; Danial 2017; Koprowski 2006). Memorization techniques form the foundation of knowledge and are an effort to enhance mastery in any field of study.

However, memory retention cannot be long-lasting in the mind if learning is not applied in the real world. Miftahul Karimah (2012) listed several weaknesses of memorization techniques in learning, including:

a.   Memorization techniques should be accompanied by understanding. This is because memorizing without understanding makes the effort futile and more likely to be forgotten.

b.   Continuous memorization can lead to boredom.

c.   May result in verbose expressions.

d.   Hinder critical thinking.

e.   Limits the brain's creativity in thinking.

f.   New information is often linked to memorized information without awareness.

The principle of language learning is memorization, but relying solely on memorization techniques will not last long and is more easily forgotten. To address this issue, Koprowski (2006) suggests a primary solution through the 'principle of expanding rehearsal,' which involves expanding practice activities. Therefore, an appropriate alternative perceived to enable students to remember all word patterns is through repeated practice. Practice activities involving repetition in Arabic morphology learning can strengthen students' understanding and enhance the retention of formulas more effectively. Engaging in practice activities in learning can improve students' understanding and facilitate long-term memory retention (Wu 2018; Tuan Salwani & Effandi 2016). Hence, teaching and learning Arabic morphology should incorporate practice activities, whether conducted inside or outside the classroom.

Learning Arabic morphology is rarely encountered in creative and innovative approaches. This situation results in decreased student motivation as they are influenced by feelings of fear and difficulty in learning Arabic morphology. Wu's (2018) found that learning English vocabulary is often considered boring and fails to stimulate student motivation due to the lack of specific methods or models to facilitate understanding for students. Therefore, efforts for improvement are necessary by creating innovation and activities in the approach to teaching and learning Arabic morphology. Danial's study (2017) suggests that learning Arabic morphology should be expanded through three forms of innovation: formula innovation, teaching material innovation, and media usage innovation in learning. The innovations developed aim to enhance student mastery and can attract interest and motivation for learning Arabic morphology.

Innovation in learning involves planning activities prepared in advance before the teaching and learning process takes place. By engaging in learning activities, teachers receive immediate feedback from students and can assess their performance. Saipolbarin et al.'s study (2018) proves that the percentage of students who received an A grade in Arabic writing increased by 92.6%, which is 250 out of 270 students, after introducing the sentence pattern formula module approach, compared to the previous percentage of 3%. Sentence construction activities in learning are conducted through the formula approach. These findings indicate that students require a formula or pattern presented in learning to help them construct sentences easily and accurately. This study highlights the need for Arabic morphology learning to adopt approaches that facilitate students in learning it more effectively.

Methods of memorization are considered key to recalling a topic or an issue. To maintain memory blocks in the mind for the long term, the fundamental concepts of the topic must be understood more clearly. Tuan Salwani & Effandi (2016) found that teaching based on

conceptual and procedural understanding not only enhances problem-solving abilities and improves mathematical understanding but also helps memory last longer. Fundamental concepts of a topic are crucial, especially in understanding early mathematical concepts, as students may face challenges in continuing related learning. According to Hancock et al. (2018), the concepts of biochemistry and molecular biology are very challenging for students accustomed to memorizing facts, but after implementing activities, students engaged in various activities achieved better results compared to less active students. These activities include self and peer assessments through generative tasks to create questions and provide written feedback. Learning involving activities and student participation contributes to a deeper understanding of the topic being studied.

Memorization techniques are also recognized to have a positive impact on music learning. Herrera & Cremades study (2018) shows that memorization can enhance musical score understanding among undergraduate music students specializing in piano across 13 states in Mexico, leading to impressive performances. This suggests that students tend to remember what they memorize when they apply it in real situations.

Integration of Games in Arabic Morphology Learning

Game activities in learning are not limited to specific fields only. Games applied in education aim to help students understand topics or content within a lesson. Recent studies on games are increasingly being conducted by researchers such as Azmin & Faridatulazna 2014; Ramani 2012 (mathematics); Juan et al. 2017 (games); Mohamad Ridhuan et al. 2017 (accounting); Almusharraf 2018; Saipolbarin et al. 2018; Wu 2018; Suhaila et al. 2017; Salmah & Suhaila 2017; Fairosnita & Kamarul 2015; Tanni & Amin Mahmoud 2015; al-Barry 2011; Koprowski 2006 (language); Boctor 2013 (nursing education). Past studies indicate that games are not only focused on language but across various disciplines and educational levels. This demonstrates that games are highly suitable for application in diverse educational fields and age groups.

Teachers play a crucial role in selecting appropriate teaching and learning methods aligned with the learning objectives. Implementing student-centered approaches through learning activities can foster autonomy and self-reliance among students to explore the knowledge they will learn. Maximizing student engagement in the learning process encourages active participation and cultivates critical thinking (Almusharraf 2018). Allowing students the freedom to voice their opinions can reduce fear and embarrassment, even when facing challenges in giving correct answers. Fairosnita & Kamarul (2015) found that social and interpersonal skills of students can be enhanced through play activities. A learner-friendly environment can ignite students' enthusiasm and high motivation to learn.

Integrating game activities in learning can influence positive behaviour among students. Karim (2017) discovered that game simulations establish a relationship between players and the game, enhancing language proficiency through practice. This aligns with Sharifah & Aliza's (2011) study, which emphasizes that interaction among peers and teachers through discussions and Q&A during game-based learning can foster engagement. This situation demonstrates that play activities in learning can stimulate students' interest to interact and actively participate.

Game-based learning is highly favoured by adults and especially children. A relaxed and creative learning concept can capture students' attention to study a topic. Ramani et al. (2012) obtained positive responses from children aged 3 to 5 years after exposure to mathematical learning games. Group play activities can encourage children to help each other and motivate them to learn mathematics. When student interest and motivation are stimulated, teaching and learning processes can proceed smoothly. For instance, 93.8% of students taking mathematics subjects showed interest in in-class game activities (Azmin & Faridatulazna 2014). This has changed students' perception that mathematics is a difficult and uninteresting subject. By implementing activities in Arabic morphology learning, student interest can be enhanced. Therefore, game-based learning activities should be adopted in Arabic morphology education to attract students to learn the basics of word pattern formation.

Koprowski (2006) proposed ten game activities suitable for enhancing mastery of English vocabulary that can be adapted for Arabic morphology learning, including:

1.   Taboo (aka Hot Seat)

Taboo or Hot Seat are divided into two groups, A and B. Group A is positioned on one side of the classroom and Group B on the other. Two chairs or hot seats are placed at the front of the room. A student from each of group's A and B will represent their group in the hot seat, facing away from the chalkboard. The teacher prepares a list of words to be used throughout the game and writes a word, phrase, or sentence on the chalkboard. The student in the hot seat from Groups A and B cannot see what the teacher writes on the board, only their group members can. When the teacher shouts 'go', each group has one minute to give clues or descriptions to the student in the hot seat using synonyms, antonyms, or definitions of the word on the board. The rules of the game prohibit mentioning the word written on the chalkboard. The hot seat student who successfully answers first is considered the winner. When the round ends, two new players from both groups will switch to the hot seat and new words will be written until the game concludes. The winner is the group that accumulates the highest number of points.

To ensure the game remains quiet and orderly, each member of the group can take turns. Only one member plays at a time. The teacher will write a word on the board as usual and give the group members one minute to mention the word. If the player in the hot seat mentions the word, the teacher quickly writes another word on the chalkboard, and so on until the time is up. The group earning points for each word must mention it within a minute.

2.   Memory Challenge

Pair or group students in small groups. Provide a designated time limit (e.g. 3 minutes) and ask them to write down as many words, phrases, and expressions related to topic X as possible. The pair or group that can remember the most words or phrases is considered the winner. To ensure accuracy in spelling, the group that can spell each word correctly will earn additional points.

3.   Last One Standing

Assign the class a topic such as food, clothing, animals, or kitchen items and ask them to stand in a circle. Students are instructed to clap their hands and say one, two, three, followed by naming a word related to the topic. After the next three claps, the next student in the circle will provide another word related to the topic. Any student who cannot think of a new word or repeats a word already mentioned must sit down, and the turn moves to the next person who is still standing. The winner is the last student remaining standing in the circle.

4.   Pictionary - Drawing Game

Divide the class into groups A and B. Group A is positioned on one side of the classroom, while group B is on the other side. One member from each team will go to the whiteboard. The teacher will provide a cue card with a word, phrase, or expression written on it. Representatives from groups A and B have one minute to draw visual clues on the whiteboard. Students are prohibited from using written words, verbal hints, or movement signals. The first group to successfully guess earns points.

5.   Bingo

The teacher will write 10 words, phrases, or expressions on the whiteboard. Each student will choose any five words from the whiteboard and write them on a piece of paper. The teacher then randomly selects one word (e.g., by picking from a hat) and provides a brief definition or synonym without saying the original word. If a student feels the selected word matches the teacher's description, they mark it with a correct mark. When a student completes all their chosen words, they shout "BINGO!!" The first student to shout "BINGO" wins the round. Additional rounds can be played with different sets of words.

6.   Outburst - Explosion

Students are divided into groups A and B. The teacher assigns each group a specific topic such as sports, vehicles, or office items that must be kept secret from the other group. Each group discusses privately for 5 minutes and lists ten items related to their assigned topic. After making their list, the game begins. The teacher informs group A of the topic assigned to group B. Group A then has one minute to try to guess the words listed by group B (by producing a burst of noisy guesses). Members of group B must listen and mark the words successfully guessed by group A. For each correct guess by Team A, they earn one point. Group B earns points for each word that remains unguessed. After recording the points, group B then guesses the list of words from group A. Additional rounds can be played with different topics provided by the teacher. The group with the highest score wins.

7.   Concentration - Focus

Divide the class into small groups. Each group is given a set of cards placed face down on the table. The game set consists of two types of cards: word cards + definition / picture cards. Students will take a card and try to match it with its corresponding card. If no match is found, the card is returned face down to its original position on the table and the next student takes a turn. If a match is successfully made, the student keeps the matching cards and tries to make another match. The player who has matched the most cards is the winner.

8.   Scrambled Letters

Write eight words with scrambled letters (e.g., eicscen for science) on the whiteboard. When the teacher says 'go', students individually or in pairs attempt to unscramble the letters to form the correct word as quickly as possible. The first student or pair to successfully unscramble the word is the winner.

9.   Q & A (Question & Answer)

Write two separate lists of words on the whiteboard; divide them into List A and List B. Give half of the class List A and the other half List B. Each student selects one word from their list and formulates a question. The question should demonstrate understanding of the word. For example, "Is your family very hospitable?" Not. What does 'hospitable' mean?" If students need assistance, they can refer to the teacher, notes, or textbooks. Once students have written their questions, students from List A and List B exchange questions. Students will read each question and write answers on the same paper. They must use the highlighted word in the question to answer it. After writing the answers, papers are exchanged back and read by the original students. Example:

Student A's question : Are there any skyscrapers in New York City?
Student B's answer   : Yes, New York City has several skyscrapers.

10.   Categories (aka The Alphabet Game)

Divide the class into three or four groups and assign a secretary to each group. On one side of the whiteboard, write down six categories related to your current topic or syllabus, for example: countries, sports, professions, movies, furniture, verbs, or round-shaped objects. To start the game, the teacher randomly selects a letter of the alphabet and writes it on the whiteboard. Each group must then work together to quickly come up with words for each of the six categories that start with the chosen letter.

The first group to complete all six categories' shouts "stop". All group members must stop writing, and a representative from each group will write down a list of words for the letter categories specified by the teacher. The teacher will review each word with the class and display the words from other groups. The first group to correctly fill in the letter categories receives

one point. The teacher then selects a different letter for the next round. The group with the highest score is the winner.

Discussion

Basic knowledge of Arabic morphology does not solely focus on one specific topic but encompasses several areas. For example, to construct sentences, students need to understand the basic concept of word formation consisting of past tense verbs (*fi'il madhi*), present tense verbs (*fi'il mudhari'*), imperative verbs (*fi'il amr*), and others. These patterns comprise a variety known as *tasrif al-Af'al*. Meanwhile, noun patterns include *ism al-alat*, *ism al-makan*, *ism al-zaman*, *ism tafdil*, and others. A strong memory capacity is crucial for learning the diverse forms of Arabic word patterns. However, is mere memorization the key to mastering *sarf* for a student? To what extent can memorization help students apply word patterns in Arabic writing? Recent studies have found that students' mastery levels in constructing sentences in Arabic are weak despite memorizing the basics of Arabic sentence patterns (Saipolbarin et al. 2018). This situation indicates that the method of learning through memorization needs improvement to enhance students' understanding, especially in Arabic morphology learning.

The learning process always involves thinking and information processing. The thinking process in a student's mind functions differently and varies depending on an individual's intellectual abilities. Because of this factor, the process of learning Arabic morphology requires more suitable techniques to stimulate students' minds as effectively as possible. Emphasizing the thinking process in learning is crucial to create an active and meaningful environment. Thinking can be facilitated through question-and-answer sessions, assignments, and exercises to help students connect existing knowledge with new knowledge to be learned. Once the techniques and learning concepts are mastered, students' actions will also change. Changing the way of thinking through problem-solving activities can shape understanding and memories that are not easily forgotten. Therefore, a more flexible approach needs to be adopted by Arabic language teachers to help students understand Arabic morphology.

One effort that can be considered reasonable and appropriate to implement in Arabic morphology learning is shifting from teacher-centered teaching to student-centered teaching. The teacher acts as a monitor or facilitator in student groups, while students are given the opportunity to actively engage in learning activities. Integrating games is seen to strengthen Arabic morphology learning. Teaching and learning designed by incorporating activities or exercises into games can stimulate thinking activities and create a relaxed environment. According to Koprowski (2006), the key to strengthening memory is through repetitive practice activities. Game-based activities should be systematically designed to create competition and motivate students to learn the language.

Conclusion

Learning Arabic morphology, which is complex, makes it difficult to master in a short period. Understanding the basic theory of word formation patterns is crucial because it enhances

vocabulary and facilitates proper understanding of sentence contexts. Students can gain an understanding of the functions of word patterns in sentence structures through activities and exercises conducted in the learning process. Activities involving repetition can enhance memory retention over a longer period. This study aims to promote student-centered learning based on constructivist theory. The incorporation of game elements in learning can create an active learning environment that stimulates student interest and motivation. This research is expected to facilitate the learning of Arabic morphology through the development of appropriate game ideas, fostering a more innovative and creative learning environment.

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