

## THE EFFECTIVENESS OF GAMIFICATION IN LEARNING ARABIC COHESIVE DEVICES

(Keberkesanan Gamifikasi dalam Mempelajari Kata Penyambung dalam  
Bahasa Arab)

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### Abstrak

This research aims to identify the effectiveness of gamification in learning Arabic Cohesive Devices. Gamification refers to the application of game mechanics in non-game environments to enhance the enacted processes and the experience of its participants. The researcher used the quantitative descriptive approach and distributed the questionnaire using a survey method to 50 first- and second-year students from the University Sains Islam Malaysia. The questionnaire was distributed to the sample members through Google Form. Then, the researcher collected the data and used SPSS to analyze it and extract the means and standard deviations. From the search results, Gamification has a positive effect on students in higher education, especially in learning a foreign language, and through it, the process of learning Arabic Cohesive Devices increases the students' motivation. Finally, gamification provides the opportunity for learners to engage with content in an effective, informal learning environment.

**Keyword:** Effectiveness, Arabic Cohesive Devices, Gamification, Arabic Language

### Abstract

Penyelidikan ini bertujuan untuk mengenal pasti keberkesanan gamifikasi dalam pembelajaran Kata Penyambung Bahasa Arab. Gamifikasi merujuk kepada aplikasi mekanik permainan dalam persekitaran bukan permainan dengan tujuan untuk mempertingkatkan proses yang digubal dan pengalaman pesertanya. Pengkaji menggunakan pendekatan deskriptif kuantitatif dan mengedarkan borang soal selidik menggunakan kaedah tinjauan kepada 50 orang pelajar tahun satu dan dua Universiti Sains Islam Malaysia. Kemudian, pengkaji mengumpul data dan menggunakan SPSS untuk menganalisis dan mengekstrak min dan sisihan piawai. Daripada hasil carian, Gamifikasi memberi kesan positif kepada pelajar di peringkat pengajian tinggi khususnya dalam pembelajaran bahasa asing dan melaluinya proses pembelajaran Kata Penyambung Bahasa Arab meningkatkan motivasi pelajar. Akhir sekali, gamifikasi memberi peluang kepada pelajar untuk melibatkan diri dengan kandungan dalam persekitaran pembelajaran tidak formal yang berkesan.

**Kata Kunci:** Keberkesanan, Kata Penyambung Bahasa Arab, Gamifikasi, Bahasa Arab.

## 1.0 INTRODUCTION

The teaching and learning of the Arabic language have been using the traditional method for a very long time. However, in this era of Information and Communication Technology (ICT), there is a rise among educators to use technology in teaching. Hence, there are a lot of educators adapting gamification to teach their students in a classroom. The term gamification refers to the “application of game mechanisms in non-gaming environments with the aim of enhancing the processes enacted and the experience of those involved”. (Caponetto, Earp, & Ott, 2014). It is a new trend of introducing game mechanics (things like points, levels, badges, virtual currency, activity feeds, challenges, quests) to areas that traditionally have nothing to do with games. (Florczyk, Mostowski, 2014). It is expected that learning through gamification will show significant improvements in students' performance.

This study focuses on the effectiveness of gamification in learning Arabic Cohesive Devices. Cohesion is a very important aspect of learning Arabic. It does not mean just “grammatically correct” sentences; cohesion refers to the connection of ideas both at the sentence level and at the paragraph level. Many instructors reported that Arabic students are poor in using linking devices (cohesion) in Arabic writing, and the main reason for that is students cannot perceive the traditional method of learning cohesion. Mohd Feham (2014) indicated that there had been fewer interventions and innovations in the field in Arabic language learning. This phenomenon may lead to a dull environment in teaching Arabic Academic Writing. The study of Mohd Fuad et al. (2014) found that there are still teachers who only use the old method of chalk and talk. Some teachers only give priority to the skills of answering exam questions and memorizing facts (Norzaharah Yahaya, 2011). The teaching and learning techniques used by educators in the classroom do not attract the attention of students. This causes some students are less interested and less appreciate the content of Arabic lessons. According to Johari et al. (2012) the use of information technology in teaching can accelerate the learning process due to increased interest and motivation of students to learn. Similarly in the view of Suzana et al. (2014) stated that information technology can stimulate interest in learning and in turn promote self-access learning. Currently, several researchers have studied the effectiveness of gamification methods in several subjects such as algebraic expressions (Siti Norhaida, 2017), manhaj qiraat (Muhammad Aizuddin et al., 2019), learning theory modules (Nurul Ain et al., 2018), and environmental courses (Rahimah Wahid, 2019). But there are no studies on the effectiveness of gamification in learning Arabic Cohesive Devices. Thus, there is a need to focus on this study.

## 2.0 BACKGROUND OF PROBLEM/PROBLEM STATEMENT

The teaching and learning of the Arabic language had been used a traditional methods for a very long time. But in this era of Information and Communication Technology, a lot of teachers use the technology provided on the Internet to attract students to focus on learning. Nowadays, gamification is widely used by teachers while teaching online including Arabic (Siti Rohani et al., 2019). They use various free applications on the internet such as Kahoot! Thus, this study aims to identify the effectiveness of gamification in learning Arabic Cohesive Devices among Islamic Science University Malaysia first year and second year students.

### 3.0 LITERATURE REVIEW

Nowadays, various teaching techniques have been created by educators in the teaching and learning process. One of them is the use of gamification which was first used in 2002 and this term is a term borrowed from the English language namely gamification (Rohaila et al., 2017). Gamification is a method of problem solving through the way of thinking while playing and it makes teaching more interesting (Prasetyo, 2016).

The gamification method is complementary to teaching and an option to achieve learning objectives (Cankaya et al., 2009) and the use of gamification involves the mechanical and dynamic elements of the game such as progress bars, points, and other similar approaches outside the context of the game to increase motivation and engagement including student learning (Mohd Hadafi et al., 2017). According to Aparicio et al. (2012), three important things that need to be considered to implement gamification in education namely; understanding the target user i. e. the player, identifying tasks that need to be completed by the player (e. g. activity objectives by level or level), and use a combination of game mechanics and dynamics appropriate to the player as encouragement of participation as well as motivating them to complete tasks well. Players here are referring to students.

While educators need to know the needs and the appropriate level to be applied to students when they want to use the gamification method. This gamification approach will help students to understand the lesson better especially in learning Arabic. Mohd Feham (2014) indicated that there had been fewer interventions and innovations in the field in Arabic language learning. This phenomenon may lead to a dull environment in teaching Arabic Academic Writing.

Cohesive devices play a vital role in Arabic Academic writing. Arabic Cohesive devices according to Halliday and Hassan (1976:75-84) divided into five categories and they are: reference, substitution, ellipsis, conjunction, and lexical cohesion. This pilot study only focus on reference, substitution, ellipsis, and conjunction.

#### 3.1 Reference

The relationship which holds between words is called reference (Lyons, 1968:404). This device incorporates utilizing language by speakers to refer to things and thoughts. Halliday and Hassan (1976: 25) said, that when the interpretation is within the text, this is an "endophoric" relation while in a situation where the interpretation of the text lies outside the text, in the context of situation, the relationship is "exophoric". However, exophoric relations play no part in textual cohesion. While Endophoric relations form cohesive ties within the text. Endophoric relations are also of two types, those which look back in the text for their interpretation are anaphoric relations while those which look forward in the text for their interpretation are cataphoric relations (Ibid). To illustrate, we can consider the following examples as instances of reference.

a) There was an orange on the Table. So I ate it.

البرتقال فوق المكتب فأكله

b) The woman prepared the dinner. She used a lot of pepper

تجهز المرأة الطعام وهي تستخدم كثيرا من البهار

In the first sentence above, 'It' / ا refers back to 'an orange' while 'She' / هي in the second sentence refers back to 'the woman'. This kind of references is referred to as an anaphora (i. e. looking backward).

### 3.2 Substitution

In Arabic, there are some special words which contribute to cohesion by substituting for words that have been already used by means of the substitution cohesive relation. This stipulates a principal rule: the substituting unit has a structural function that is similar to the one actualized by the substituted units or items (Al-Hindawi and Abu Krooz, 2017). Three types of substitution can be identified: nominal, verbal and clausal.

- a) I have eaten your meal. I must get you another one (Nominal substitution)

أكلت طعامك سأحضره لك بديلاً عن ذلك

- b) Do you like orange? Yes I do (Verbal Substitution)

هل تحب البرتقال؟ نعم

- c) Does she say there is going to be a book fiesta? Yes she says so. (Clausal Substitution)

هل هي قالت بأنّ هناك معرض الكتب؟ نعم قالت ذلك

### 3.3 Ellipsis

Ellipsis is defined as an omission of a linguistic element, and it can be thought of as a zero tie or nothing owing to the fact that the tie is left unsaid. Yet, what is left unsaid is nevertheless understood and the idea of omitting part of sentences on the assumption that an earlier sentence will make the meaning clear is known as ellipsis. Ellipsis can be verbal, nominal, or clausal. (Al-Hindawi and Abu Krooz, 2017). For example:

- a) Saad and Su bought some oranges (Verbal ellipsis).

يشترى سعد وسو البرتقال

- b) Three members of staff went there and yet another three (Nominal ellipsis)

ذهب ثلاثة من الموظفين إلى هناك وثلاثة آخرون

- c) I left my meal in the kitchen and someone came in and ate it up without saying a word to me. I wish I could find out who (Clausal ellipsis)

تركت وجبتي في المطبخ وجاء شخص ما وتناولها دون أن يقول لي كلمة واحدة. أتمنى أن أتمكن من معرفة من تركت وجبتي في المطبخ  
وجاء شخص ما وتناولها دون أن يقول لي كلمة واحدة. أتمنى أن أتمكن من معرفة من

In 8, the verb 'bought' has been elided, in 9, the noun 'members' has been elided while in 10, 'who' replaces 'someone' and the clause 'came in ...' has been elided.

### 3.4 Conjunction

Halliday (1976) recognizes four types of conjunction and they are additive, adversative, causal and temporal. He maintains that conjunctive elements are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily intended for reaching out into the preceding or following text but they express certain meanings which presuppose the presence of other components in a discourse. The examples are: and, then, ثم، و

Based on what have been shown about Cohesion in Arabic, we may conclude that its not easy for students to comprehend it and in the certain ways the

gamification can contribute to the understanding of the concept of Cohesion in Arabic.

Hence, there is also a need for educators to know the types of games that students like to attract them to learn Cohesion in Arabic. According to Bonanno et al. (2005) the use of adventure-shaped digital games had the same percentage among male and female students while female students preferred puzzle-shaped digital games compared to males.

The implementation of gamification in education especially in student learning at all academic levels is highly encouraged because of its ability to produce positive effects such as being able to influence behavior in teaching and learning (Mohamed Rosly et al., 2017), stimulating student motivation in both intrinsically and extrinsic (Hussain et al. 2014, Khaleel et al. 2016 and fathi et al., 2021), increasing students' interest in learning (Kiryakova et al., 2014 and Kiili, 2014), fun and not burdensome for students (Siti Noor Asyikin et al. 2015), active involvement in competitive activities (Han et al., 2008), improving students' comprehension and memory for the long term (Furdu, 2017 ) as well as improving learning performance (Wong, 2012).

As a result of the studies on the effectiveness of the gamification approach in teaching and learning above, we can understand that many positive effects that students will get through this approach especially in teaching of Arabic Cohesive Devices.

#### 4.0 OBJECTIVES

The objective of this pilot study is to see the effectiveness of gamification in learning Arabic Cohesive Devices.

#### 5.0 METHODOLOGY

This pilot study is a quantitative study that uses a survey design method by using a questionnaire as a data collection instrument. It was conducted at Universiti Sains Islam Malaysia (USIM). The respondents for this study consisted of 50 first- and second-year students who studied in the UBA (Unit Bahasa Arab) subject. The researchers used a purposive sampling method consisting of male and female students. The consistency of the questionnaire was measured with Cronbach's Alpha test, the reliability value obtained was 0.778, which shows reliability. this instrument is acceptable (a value of  $0.7 < 0.8$  has a good relationship strength).

#### 5.1 Data Analysis

Table 1 shows the standard deviations to determine the effectiveness of gamification in learning Arabic Cohesive Devices.

Table 1

Field	Mean	Standard deviation	Degree of approval
Effectiveness of gamification in learning Arabic Cohesive Devices	4.42	0.09	Very strong

It is clear from Table (1) that the arithmetic mean of the responses of the effectiveness of gamification in learning Arabic Cohesive Devices is (4.42) with a standard deviation of (0.09), this means that the degree the effectiveness of gamification in learning Arabic Cohesive Devices was strong.

## 6.0 FINDINGS AND DISCUSSION

Table 2

Field	Degree of approval	Standard deviation	Mean
Gamification stimulates students to increase knowledge about Cohesion in Arabic language.	4.52	Very strong	0.58
I catch the basic idea of Arabic Cohesive Devices through gamification	4.48	Very strong	0.61
My knowledge of Arabic Cohesion is increased through gamification.	4.36	Very strong	0.66
I try to apply Arabic Cohesive Devices in writing through gamification	4.36	Very strong	0.69

Table (2) shows the results of the student's responses to the effectiveness of gamification in learning Arabic Cohesive Devices. Most items in this field have obtained a very strong score, with an average of between (4.52) and (4.36). The highest item in this field is (Gamification stimulates students to increase knowledge about Cohesion in the Arabic language) as it has an arithmetic mean (4.52) and a standard deviation (0.58) and the lowest of it is item (I try to apply Arabic Cohesive Devices in writing through gamification).

As can be observed from the data, the researcher found that gamification in learning Arabic Cohesive Devices had a positive effect on students. Gamification makes learning fun and interactive, making students enjoy learning and discover more about Cohesion in the Arabic language. As stated by Fathi et al (2021), gamification also can improve students' academic performance. Therefore, educators or lecturers need to discover a lot about any online games that may attract students to learn the subjects' content in a very interesting way.

Students also agreed that through gamification, their knowledge regarding Arabic Cohesion is increased. This statement is supported by Rebekah Stathakis (2022), as students learn through the process of gamification. Through gamification, students may apply the knowledge they have acquired before. From here, it has been proven that gamification in learning Arabic Cohesion has a positive effect towards students.

## 7.0 CONCLUSION AND RECOMMENDATIONS

From this pilot study we may conclude that gamification approach has many positive impacts on respondents. The use of gamification in teaching and learning has been shown to stimulate students' interest and motivation to be actively involved in the classroom.

Findings from previous researchers on students' perceptions of learning Arabic can be overcome through gamification. Therefore, lecturers or educators need to diversify their teaching methods to make the classroom very engaging and interesting in learning Arabic in the informal learning environment. Students also need to explore more in any games related to learning Arabic and they must actively participate in online gaming activities created by the lecturers. This awareness also may apply in teaching and learning in any other foreign language.

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