Analysis of Student Needs Towards the Development of Scratch Games for Arabic Vocabulary Learning

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ABSTRACT
Proficiency in the Arabic language necessitates a mastery of vocabulary. The inability to master vocabulary hinders overall Arabic language proficiency, posing a challenge for numerous students in their learning journey. In contemporary times, technology has become integral across various sectors, including education. The integration of technology is expected to expand the array of teaching and learning methods. Among the modern methods that can be used nowadays is the game-based learning (GBL). Using GBL in the educational process can help facilitate and increase students' interest in engaging in any subjects including language subjects. Therefore, this research will analyze the needs of developing Scratch games to learn the Arabic vocabulary. This research uses mixed method with the aim to identify problems faced by students in learning the vocabulary of Arabic and to identify students' perceptions of the need to develop a Scratch game in learning

the Arabic vocabulary. The Development Model of ADDIE (1975) was used in this study as a guide but only at the analysis phase. Respondents in this research are students of the second semester of the Arabic Language Communication Program from the Faculty of the Academy of Language Studies from University Technology MARA (UiTM), Shah Alam. This research uses questionnaire as a way of collecting data and the SPSS statistical package to analyze the data. Based on the findings, the researchers concluded that the need of development of Scratch games for learning Arabic vocabulary should be implemented.

Keywords: Need Analysis; Game-Based Learning; Scratch; ADDIE (1975)

INTRODUCTION

The Arabic language is one of the challenging subjects nowadays. Foreign language subjects that are based on vocabulary mastery are often a challenge for students. Building a strong vocabulary is crucial in learning Arabic because it is the basic of the language (Supriadi & Haslinda, 2022). Through vocabulary mastery, speakers can master the language (Isnaini & Huda, 2020). Sitompul (2020) stated that there are two factors that make vocabulary mastery important in learning a first or foreign language. First, a sufficient number of vocabularies can guarantee students' ability to master the language. The second factor is the insufficient of vocabulary which is the primary challenge in learning the language. There are also a few other factors that make it difficult for student to master the Arabic vocabulary. In a language, there are skills that need to be mastered by a speaker so that the language can be mastered well. By having extensive vocabulary knowledge, a person can have the skills and mastery of the language in many levels, branches and aspects, while narrow vocabulary knowledge causes a person to fail to receive useful input from the language being learned (Susanto, 2018). If there is no vocabulary, then language will not exist. When it comes to mastering a foreign language like Arabic, one of the key aspects deserving attention is vocabulary. In this regard, learning this vocabulary is a continuous process of getting to know new words and understanding their use (Memis, 2018). In order to ensure that vocabulary learning continues with less difficulties, one or more methods that can help students develop vocabulary during school hours and also outside of school hours are essential.

Based on previous studies, there are a number of challenges faced by student in Arabic vocabulary learning. Isa et al. (2022) conducted a study elucidating that several factors, including the underutilization of verbs, insufficient revision, and lack of mastery in verb patterns, contribute to students' difficulty in mastering Arabic vocabulary. The authors further recommend that students adopt more interactive learning styles and engage in creative and critical thinking to address this issue. Besides that, Retnawati et al. (2020) conducted a study indicating that students encounter challenges in learning the Arabic language, attributing difficulties to factors such as students facing challenges in reading Arabic fluently, mastering basic vocabulary, low learning motivation, limited active participation in Arabic speaking, lack of self-confidence, limited learning hours, inadequate learning facilities and insufficient environmental support. The authors recommended the incorporation of technology-based tools as one of the methods to enhance Arabic learning for students. Since students need appropriate methods or strategies to increase the level or number of

their vocabulary, there are many methods that can be used to ensure that mastering the vocabulary of a language can be achieved more easily and effectively. According to Rao (2018), to learn a language more effectively, the practice of methods or strategies for vocabulary learning is a crucial step for individuals aiming to acquire new words with greater ease and effectiveness. In today's technology era, there are many facilities that can be used to strengthen one's vocabulary. Therefore, students need to identify which methods or strategies can help them in mastering the vocabulary of a language.

In this era of globalization, almost everything that happens will be linked to technology or information technology. This period is more commonly referred to as the industrial revolution 4.0 era. This industrial revolution has affected various things including aspects of education. Education 4.0 addresses the demands of the industrial revolution 4.0, aligning people and technology to creatively and innovatively generate new opportunities. According to Fisk (2017), this perspective on learning urges students to acquire not just the requisite skills and knowledge but also to locate the resources necessary for acquiring those skills and knowledge. The selection of the method must necessarily vary with the passage of time. Nowadays, times are changing and progressing with the sophistication of technology, so the method to be used must coincide with the latest generation. In the past, traditional teaching and learning methods were preferred by educators. However, in this era of information technology, the method is less implemented. This point is supported by Siti Fatihah et al. (2020) who said that chalk-and-talk teaching techniques are no longer pertinent in today's educational landscape, instead interactive and mind-testing techniques are the choice of the current generation that are more technology-friendly. As time progressing, technological advancements play a crucial role in ensuring the success of the teaching and learning process in this century (Nuradilah et al., 2020). Furthermore, traditional teaching methods relying on chalk, verbal communication, and innate abilities will not produce students who think creatively, critically and have a high imagination, thus causing them to be unable to make better decisions about a problem (Noorazman et al., 2018).

Nowadays, the education process depends a lot on information technology such as the use of animated videos, audio and so on. These things are of great interest and attract the attention of the young generation nowadays. Noorazman et al. (2018) elucidated that the Malaysian Ministry of Education's (KPM) initiative to incorporate Information and Communication Technology (ICT) as a teaching aid is a commendable step towards enhancing the quality of teaching and learning. Technology was frequently employed in education during the preceding Covid-19 pandemic. Radha et al. (2020) stated that the transition from traditional face-to-face teaching and learning processes to online methods has become the standard approach during the era of the pandemic. At the beginning, many teachers experienced problems in terms of how to use technology in education, but over time they were able to practice distance learning in the process without any problems due to the rapid development of information technology today (Murphy, 2020). The use of mobile devices and Internet access can also be widely used. This causes students to be more productive in their learning. Madjapuni and Harun (2019) said that with active activities and involvement, it will lead to the completeness of the students' understanding and great interest in learning. With that, the students can concentrate on every learning topic, including learning the Arabic vocabulary.

One instance of a present-day educational approach is game-based learning (GBL). As per Masrop et al. (2023), GBL is a kind of learning tool that combines motivation, entertainment, and education. Additionally, Sim et al. and Yiing (2023) elaborate that games offer motivation and deliver prompt positive feedback to learners, thereby heightening their interest in language learning. This holds significance as a common challenge encountered by educational institutions is students experiencing boredom and a lack of interest in learning, particularly when dealing with demanding subjects like Arabic. As stated by Hilmi and Shafiai (2022), the problem of losing focus and being bored when studying often happens and needs to be addressed. Noroozi et al. (2020) proposed a solution to tackle this issue by implementing the game-based learning (GBL) method, incorporating effective games to enhance student engagement in the classroom. This can be seen according to recent studies.

In a recent study involving the 21st-century education system, games have emerged as a potent educational tool for sustaining engagement and motivation in the learning process (Masrop et al., 2023). The GBL method can help students to stay motivated while studying certain subjects including language subjects. As stated by Casañ-Pitarch (2018), the demand for game-based language learning has been elevated due to its substantial impact on altering the cognitive processes and students' motivation. According to the research conducted by So and Seo (2018), it is demonstrated that game-based learning (GBL) influences the characteristics and principles of game design to engage and motivate users in the educational context. This assertion is further supported by Selvi and Çosan (2018), who stated that the use of games can help students participate in their learning process and develop their critical thinking skills. Earlier studies have indicated that incorporating games into the learning process can contribute to the enhancement of students' understanding and interest as well as increasing students' achievement scores compared to traditional methods (Ali et al., 2021). In addition, this method is also the best method to show or initiate changes in student behaviour and improve their learning outcomes (Kim & Castelli, 2021). This method can also be used as an alternate educational resource and support for students to master vocabulary learning and obtain satisfactory achievements (Yiing & Mahamod, 2021). With that, GBL is a method that needs to be applied nowadays. If GBL is practiced, students can focus on challenging subjects such as Arabic at all levels of study. Therefore, the researchers will use GBL to help the students of the language faculty of the UiTM to master the Arabic vocabulary in the Arabic Language and Information Technology course.

There are various applications and platforms that provide facilities to develop a game including Scratch. Scratch is an application or software developed by the MIT Media Lab in 2007 (Park & Shin, 2022). Scratch can be accessed online through its website without any payment (Nurjaman et al., 2023). Scratch is a simple programming application because it does not require the use of a complicated programming language (Pradja & Saputra, 2023). Therefore, Scratch is suitable for those who want to start getting to know programming languages. According to Schorow (2007), the Scratch website enables users to creatively combine various media, including graphics, sound, and other programs. This is achieved by creating and recombining projects such as video games, animations, music, and simulations. Hardiansyah and Armin (2023) said that Scratch functions as an application that can be used for the purpose of making interactive storytelling, interactive games, and animations, and can be shared with other users through internet media. The Scratch platform has been translated into more than 70 languages and is utilized in

various regions around the world (Scratch, n.d.). Scratch is a visual programming language and website that can be used as a teaching tool for education. As of February 15, 2023, statistics indicates that there are over 123 million shared projects by more than 103 million users. Additionally, there have been over 804 million total projects created, including non-shared projects, and the Scratch website has received more than 95 million visits (Scratch, n.d.). This is attributed to the fact that, as mentioned by Maloney et al. (2010), Scratch is commonly employed by teachers and students in the teaching and learning process. Therefore, the researchers will use the Scratch platform to develop a game for learning the Arabic vocabulary.

As indicated in prior research, the persistent issue of students experiencing a lack of motivation and interest can be addressed through methods like game-based learning (GBL). Therefore, the objectives of this study are:

1. Identify the problems faced by students in learning the Arabic vocabulary.
2. Identifying students' perception of the need to develop Scratch games in learning Arabic vocabulary.

Aligned with the study's objectives, the researchers formulated a set of research inquiries to address the study's aims, namely:

1. What are the problems faced by UiTM Shah Alam Communication Arabic students in learning the Arabic vocabulary?
2. What is the student's perception of the need for the development of Scratch gamification in learning the Arabic vocabulary?

This study constitutes a needs analysis, a crucial phase in the development of a product or educational program. The researchers will use the ADDIE (1975) development model as a guide for the analysis phase of the development of Scratch games for learning Arabic vocabulary.

METHODOLOGY

In this chapter, the researchers will outline the methodology employed in this study. Through this chapter the researchers will explain the design and research methods used according to the objectives that have been set. The researchers also discussed the study sample and data collection methods as well as the instruments used. At the end of this chapter, the researchers will present the method used to analyze the data that will be collected in this study.

This study is a descriptive study under the field of IT related to the analysis of gamification development needs using ADDIE (1975) development capital as a guide. This study will focus on the needs analysis phase only according to ADDIE (1975) development capital. Descriptive research is a problem-solving process that can be investigated by providing an overview of the state of the object and subject of research (Jafar, 2023). Furthermore, this study employs a mixed

method approach, which is a study that uses statistics as a measure of data or variables. Information regarding the ADDIE (1975) development model is as follows:
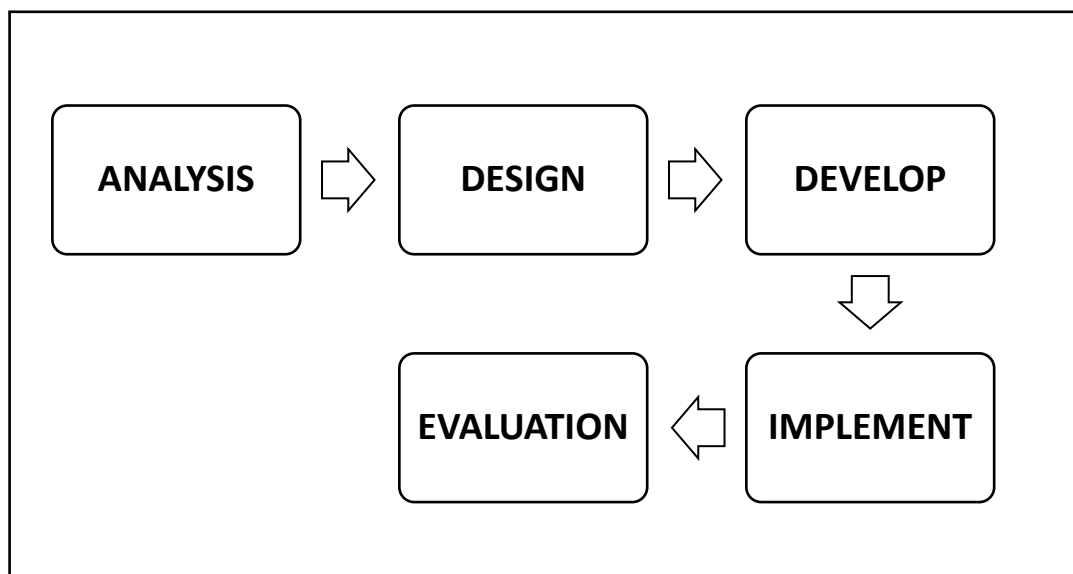

Figure 1: ADDIE Development Model (1975)

The ADDIE model (1975) is a model used by teachers, designers and the development of educational programs. ADDIE (1975) represents Analysis, Design, Develop, Implement, and Evaluation, serving as the fundamental steps or stages in the development process. These steps are found in every other development model. In other words, the ADDIE model (1975) is the basic of learning development model (Cowell et al., 2006) and then other models were formed from it. ADDIE is one of the design models that is often the basis for other instructional design models (Warju et al., 2021) and it also became the basic phase to a more detailed procedure. According to Branch (2009), the ADDIE model (1975) is very suitable for the development process of educational products and effective learning resources. The use of the ADDIE model is not only for product development, but also helps in the process of organizing learning content in the product itself (Buhari & Hussain, 2023). Following these reasons, the researchers will use the ADDIE Development Model (1975) as a guide for the analysis of the development needs of the Scratch game for learning Arabic vocabulary. This study is in the initial needs analysis phase, while the next phase will be implemented in future studies.

The sampling technique chosen by the researchers is the purposive sampling technique. The study's sample comprised 71 students in their second semester from the Professional Communication Arabic program at UiTM, Shah Alam. The researchers chose semester 2 students as the study sample because they had taken the Arabic and Information Technology courses and this study will look at the development needs of Scratch games based on the content of the subject.

The researchers will employ a questionnaire as an instrument to identify the perception of the need to develop the Scratch game for learning the Arabic vocabulary. The use of this questionnaire is very suitable with the survey method (Collin, 1998). This constructed

questionnaire contains 4 parts which are part (A) Demographics, part (B) Problems faced by students in learning Arabic vocabulary, part (C) The need for Scratch games to learn Arabic vocabulary and part (D) Open questions. This questionnaire consists of 26 items aligned with the study's objectives. The questionnaire items in this study have been adapted and modified from Nawi's research (2020) as deemed suitable.

The questionnaire utilizes a Likert scale, a measurement tool employed to gauge respondents' agreement levels with statements. The scale comprises five levels, namely:

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Alias Baba's (1999) method of interpretation is employed to assess the level of student needs. According to Alias Baba (1999), the mean measurement is categorized into five levels, namely:

Table 1
Alias Baba Interpretation Table (1999)

1.00 – 1.80	Very low
1.81 – 2.60	Low
2.61 – 3.40	Medium
3.41 – 4.20	Height
4.21 – 5.00	Very high

The researchers will seek written permission and consent from the participants to respond to the questionnaire regarding the development needs of Scratch games for learning Arabic vocabulary. An explanation outlining the study's objectives and implementation requirements will be included. Upon obtaining consent, the researchers will distribute the questionnaire online through Google Form on the WhatsApp platform. Participants will be allotted 3 days to complete the questionnaire, with daily reminders sent by the researchers.

The collected data will undergo analysis through descriptive statistics, focusing on mean values and percentages. The researchers will employ the Statistical Package for Social Science software, specifically SPSS Version 27, for data analysis. The results will be presented in tabular format, accompanied by a narrative explanation of the study findings.

RESULT AND DISCUSSION

This needs analysis was conducted for 71 students from the Bachelor of Applied Language (Hons) Arabic for Professional Communication program, Universiti Teknologi MARA. The purpose of this survey was to identify students' perspectives regarding the necessity for developing Scratch games to facilitate Arabic vocabulary learning. The analysis results for the development requirements of Scratch games for learning the Arabic vocabulary are detailed in the table below:

Table 2
Age of Respondents

No.	Item	Data	Quantity	Percentage (%)
1.	Age	20	30	42.3
		21	33	46.5
		22	5	7.0
		23	1	1.4
		24	2	2.8
	Overall total		**71**	**100.0**

The above table illustrates the age range of the respondents, which falls between 20 and 24 years. From the table it can be seen that there are 30 students aged 20 (42.3%). In addition, there are 33 students at the age of 21 and they have the largest number of students (46.5%). Then there are 5 students at the age of 22 (7.0%). For students who are 23 years old, there is only one student, and this is the lowest number of students with (1.4%). Finally, there are only two students at the age of 24 with (2.8%).

Table 3
Gender of respondents

No.	Item	Data	Quantity	Percentage (%)
2.	Gender	Male	24	33.8
		Female	47	66.2
	Overall total		**71**	**100.0**

The table above shows the gender of the respondents directly involved in this study. The table shows that there are 24 male respondents (33.8%). As for female students, their number is more than the male students, namely 47 female students, with a percentage of 66.2%. There is a variance of 23 students between the male and female student numbers. The collective total of male and female students amounts to 71 students (100%).

Table 4
Group of respondents

No.	Item	Data	Quantity	Percentage (%)
3.	Group	LG242 5A	24	33.8
		LG242 5B	24	33.8
		LG242 5C	23	32.4
	Overall total		**71**	**100.0**

Table 4 is about classes or groups of students. There are three groups for students in the second semester of the Bachelor of Applied Language (Hons) Arabic for Professional Communication program, University Technology MARA, and each group has its own number of students. As for the LG242 2A group, it consists of 24 students (33.8%). The same applies to the LG242 2B group which also has 24 students (33.8%). As for the LG242 2C group, the number of students reached 23 students, with a percentage (32.4%). The difference in the number of students is negligible. The researchers concluded that the second semester's student count was 71, comprising 100% of the total.

Table 5
Experience using games in learning

No.	Item	Data	Quantity	Percentage (%)
4.	Experience using games in learning	Have experience	46	64.8
		Does not have experience	25	35.2
	Overall total		**71**	**100.0**

The table above shows the experience of students using games in learning. As depicted in the aforementioned table, 46 students (64.8%) have utilized the game method in the classroom. As for the number of students who have never used the game method, there are 25 people (35.2%). This proves that the majority of students know this method and have used it.

Table 6
Problems faced by students in learning Arabic vocabulary

No.	Item	Mean	Mean Interpretation Level	Standard deviation
1.	Does not have a vocabulary learning strategy.	3.03	Medium	1.055
2.	Does not know how to improve Arabic vocabulary.	3.87	Medium	1.013
3.	Uninteresting learning methods.	2.75	Medium	1.143
4.	Ineffective learning materials.	2.75	Medium	1.118
5.	Lack of vocabulary strengthening activities.	3.37	Medium	1.072
6.	Difficult to remember Arabic vocabulary.	3.15	Medium	1.064
7.	Lack of interest in learning Arabic vocabulary.	2.39	Low	1.035
8.	Lack of motivation to learn Arabic vocabulary.	3.00	Medium	1.159
9.	Lack of involvement in learning Arabic vocabulary.	3.10	Medium	.988
10.	Fear of learning Arabic vocabulary in class.	3.08	Medium	1.066
	Overall total	**3.04**	Medium	**.79765**

The table above displays ten questionnaire items concerning problems encountered by Arabic language students at UiTM in their Arabic vocabulary learning. The table presents the data's count, mean, level, and standard deviation. Based on this data, students choose whether to agree or not. As a total, it can be seen that the total standard deviation is 0.79765. In addition, the total mean for this data is 3.04 which can be categorized as a moderate level of mean interpretation according to the interpretation table of Alias Baba (1999) and shows that the problems encountered by students when learning the Arabic vocabulary need to be overcome.

Table 7
Students' perception of the need to develop Scratch games for learning Arabic vocabulary

No.	Item	Mean	Mean Interpretation Level	Standard deviation
1.	I can understand learning Arabic vocabulary more easily.	4.15	High	.624
2.	The use of games in learning Arabic vocabulary helps me to remember well.	4.10	High	.613
3.	I feel motivated when using games in learning Arabic vocabulary.	4.08	High	.671
4.	I am more confident to learn Arabic vocabulary by using games.	4.08	High	.692
5.	I like to use games in learning Arabic vocabulary.	4.10	High	.658
6.	I can concentrate when using games in learning Arabic vocabulary.	4.01	High	.727
7.	The game-based learning (GBL) method attracted my interest in learning Arabic vocabulary.	4.07	High	.724
8.	I enjoy doing game-based activities.	4.13	High	.635
9.	I agree that the game-based learning (GBL) method is used in learning Arabic vocabulary.	4.21	Very high	.653
	Overall total	**4.11**	**High**	**.58701**

The table above presents nine question items related to students' perceptions about the need to develop Scratch games for learning Arabic vocabulary. Based on this table, the total standard deviation is 0.58701. In addition, the total mean for this data is 4.11 which can be categorized as a high level of interpretation according to Alias Baba's interpretation table (1999) and shows that the students agree to use the GBL method for Arabic vocabulary acquisition. which leads to the need of developing a Scratch game for learning the Arabic vocabulary.

In this needs analysis, the researchers also asked three open questions to the respondents. The researchers did not involve some of the respondents' answers due to repetition. However, the researchers included a frequency number that shows the total number of respondents' answers by category except for other answer categories. The data that can be collected is as follows:

Question 1: What other problems do students face in learning Arabic vocabulary?

Table 8
Respondents' comments and suggestions (question 1)

Category	Response
Lack of skills to improve Arabic vocabulary Frequency: 9	1. Not good at mastering vocabulary 2. Doesn't have a lot of vocabulary 3. Not good at speaking Arabic 4. Lack of memorization techniques 5. Not proficient in basic Arabic 6. Vocabulary is not in the dictionary
Not interested Frequency: 4	1. Lazy and lack of interest in Arabic 2. Lack of focus and lack of motivation to stay interested
Less effective learning techniques Frequency: 3	1. Maybe an ineffective learning technique 2. Need for a variety of teaching methods
Difficulty remembering words Frequency: 7	1. Arabic vocabulary is difficult to remember 2. It is easy to forget new words 3. Understanding and recalling the meanings of words can be challenging 4. It is easy to forget newly acquired vocabulary
Poor understanding of word usage Frequency: 5	1. Many words have many meanings 2. Can't distinguish the use of vocabulary in sentences. 3. Comprehending the meaning of words poses a challenge
Not applied in daily life Frequency: 5	1. Lack of practice 2. Not practicing Arabic orally 3. Not applied and consistent in daily life 4. Less taking notes and practicing newly acquired vocabulary
Other responses	1. Difficult to read 2. Words seldom utilized in daily conversations 3. I lack confidence when speaking Arabic

4. It's hard to learn
5. Lack of concentration and shy to ask what is not understood
6. Facing the problem of delay in learning
7. Confusion about the use of the word row
8. Vocabulary is difficult to use especially for communication
9. Internet is not strong

After examining the data collected, the researchers classified the respondents' answers into six types, namely:

1. Lack of skills to improve Arabic vocabulary
2. Lack of interest, all three learning techniques are less effective
3. Difficulty remembering words
4. Poor understanding of the use of words
5. Not applying it in daily life
6. Other responses:
    a. Difficult to read in Arabic
    b. Words that are rarely used every day.

Question 2: What is your opinion on the need to use gamification methods in learning?

Table 9
Respondents' comments and suggestions (question 2)

Category	Response
Good and effective Frequency: 8	1. The game method is very useful and good to use in learning. 2. This method is very effective in learning 3. Very good and useful to interest students in improving Arabic vocabulary 4. Game methods in learning will be effective among students to improve Arabic vocabulary 5. It is an effective educational technique
Can help students memorize words Frequency: 4	1. It is easy for players to remember Arabic vocabulary because the game also requires memory 2. This method is a necessary method because it can strengthen the memory of students who want to learn Arabic 3. It is good for improving students' memory of the meaning of Arabic vocabulary because it provides an effective strategy to intensify learning including creating friendly competition.
Can interest students	1. As a way to attract more students 2. It is one of the ways to make learning more interesting.

Frequency: 10	3. Very accurate because games can attract students to have fun while gaining knowledge 4. I strongly agree because it can create students' interest to communicate in Arabic 5. This method is interesting to me. 6. Using game methods in learning can attract students like me who like to play games
Can facilitate student understanding Frequency: 4	1. Facilitate student understanding 2. It is highly encouraged because it makes it easier for us to understand the Arabic language better
Can improve students' vocabulary Frequency: 6	1. Can help students improve vocabulary 2. The play learning method needs to be done because some students can increase their vocabulary in this way.
Other responses	1. The game method is a good method because it can increase self-confidence by helping to focus longer on learning 2. It should now be used according to the current time 3. Very encouraging 4. Highly recommended for all ages 5. It is necessary because today's technology makes it easier for us to follow it 6. By using this method at least students can learn a little something new 7. Necessary, for more relaxed learning, because not everyone can understand it easily through books and lecturers 8. Necessary but not very effective

The researchers also collected and classified the respondents' responses into several categories, namely:

1. Nice and effective
2. Can help students memorize words
3. Can interest students
4. Can facilitate student understanding
5. Can improve students' vocabulary
6. Other responses

Question 3: Are there any improvements that can be made to the gamification method in this learning?

Table 10
Respondents' comments and suggestions (question 3)

Category	Response
Game form Frequency: 8	Create more games to help people who have difficulty remembering vocabulary
	Games must be aligned with student standards or have their own level
	Create more interesting games
Game system Frequency: 4	Develop and provide instructions in a more organized and understandable manner
	Reduce "mistakes" so that learning goes smoothly
	Give answers objectively because it makes it easier for students to answer
Variety of vocabulary Frequency: 3	More vocabulary can be added according to the student's level
	Add vocabulary that is rarely used in everyday life.
	Extend the answer time and diversify the vocabulary
Game elements Frequency: 10	Add interesting background music
	The size of the text should be enlarged
	Provide in-game score values and classifications and can be played in groups
	Create more interesting graphics
	Can compete with friends' scores
	Add different images (pictures, letters)
	Turn down the background music
	Maybe include some interesting videos that can be turned into games
	The game requires a level of difficulty where questions will be asked in stages from easy to difficult.
Other responses	In all aspects
	Can be upgraded

Based on the data collected, the researchers can classify these respondents' suggestions into five parts, namely:

1. Game form
2. Game system
3. Variety of vocabulary
4. Game elements
5. Other responses:
   a. Fix all aspects
   b. Yes
   c. Some games have system glitches.

Knowledge is very important in our daily life but in order to gain knowledge, people have to work hard to acquire it. But sometimes, some students are not interested in learning because of the way their teachers teach in the class. In addition to teaching methods, there are other problems that students faced that made it difficult for them to learn a particular subject. Because of this, the researchers want to obtain solid data about this matter. Therefore, the researchers decided to collect data from the student using the questionnaire method. The researchers selected a few students as his respondents and gave them the questionnaire in the form of Google Form. These forms include some demographic questions and some questions related to the first objective of this research. The researchers employed a Likert scale ranging from strongly agree to strongly disagree. In the questionnaire, the researchers provide some examples of problems that students may encounter while studying. The researchers point out these problems from previous studies.

After collecting data about the problems students face in learning Arabic vocabulary, the researchers need to verify whether or not the students would agree to using games during their studies. GBL is one of the methods that can be utilized and is well-suited for students of this age group. The researchers collect data through desktop searches for reference in order to complete the research. The researchers also provide other examples of a previous study on the same field of research. After climbing for data and information, the researchers agreed to choose the ADDIE model (1975). The ADDIE model (1975) is a system or method that was used to develop programs. In this research, it was used to develop an educational program. Following the ADDIE model (1975) involves going through five essential steps, which is Analysis, Design, Development, Implementation and Evaluation. However, the researchers only undertake the initial step, which is analysis, as this is specifically needs analysis research.

CONCLUSION

The researchers encourage the use of GBL for learning and teaching the Arabic vocabulary because it is one of the appropriate and preferred methods among students at the present time. Other than that, it also helps students overcome problems such as forgetting words easily and not

being interested in the Arabic language. In light of the study's results, the respondents agreed to use this game method in the learning process because it is more interesting, can increase student motivation, can help students remember Arabic words and can help students increase Arabic vocabulary. The researchers also suggest developing games in different forms and types for use in learning Arabic vocabulary. For example, puzzle games, crossword puzzles, and more in future research. The researchers also want to suggest that every game that will be develop, needs a scoring system and a leader board for students to compete with each other to get the highest score. In addition, every instruction, question, and information in game should be clearer so that students can understand each content. The researchers suggested implementing game graphics optimization. It may take time to produce games with interesting graphical level, but it is still achievable and will interest students more to participate in learning activities that use games. Apart from the scratch platform, researchers also suggest developing games using other platforms such as Adobe Flash and Wordwall. Finally, the researchers would like to conclude that the development of Scratch games for learning Arabic vocabulary is very necessary.

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Conflict of Interest

The absence of any conflicts of interest is asserted by the authors.

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