

## **The Effectiveness of Global Tahfiz Game (GTG) Gamification in Teaching and Learning in Malaysia**

**Azman Ab Rahman<sup>1\*</sup>**, **Muhammad Hafiz Saleh<sup>2</sup>**, **Abd. Muhaimin Ahmad<sup>3</sup>**,  
**Zainora Daud<sup>4</sup>**, **Muhammad Faiz Abd. Shakor<sup>5</sup>**

<sup>1</sup>Syariah and Law, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800, Nilai, Negeri Sembilan, Malaysia.

Email: [azman@usim.edu.my](mailto:azman@usim.edu.my)

<sup>2</sup>Faculty of Quranic and Sunnah Studies, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800, Nilai, Negeri Sembilan, Malaysia.

Email: [mhafiz@usim.edu.my](mailto:mhafiz@usim.edu.my)

<sup>3</sup>Faculty of Quranic and Sunnah Studies, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800, Nilai, Negeri Sembilan, Malaysia.

Email: [muhaimin@usim.edu.my](mailto:muhaimin@usim.edu.my)

<sup>4</sup>Faculty of Quranic and Sunnah Studies, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800, Nilai, Negeri Sembilan, Malaysia.

Email: [zainora@usim.edu.my](mailto:zainora@usim.edu.my)

<sup>5</sup>Faculty Syariah and Law, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800, Nilai, Negeri Sembilan, Malaysia.

Email: [faizshakorkisas@gmail.com](mailto:faizshakorkisas@gmail.com)

### **ABSTRACT**

This study aims to measure the level of effectiveness of the Global Tahfiz Game (GTG) in education. This study involved 86 tahfiz teachers in tahfiz institutions in Malaysia. The design of this study is a quantitative study that uses a questionnaire as a research instrument. Quantitative data were analyzed descriptively using the Statistical Package for Social Sciences (SPSS) to obtain frequencies and percentages. The results of the study found that in general, the level of effectiveness of GTG in Education is at a good level. The results of this study can also be used as a benchmark for the developers of gamification innovation products to make more improvements and production of other innovative products for other areas that are still less emphasized for the benefit of the Muslim community in particular and society in general.

### **CORRESPONDING AUTHOR (\*):**

Azman Ab Rahman  
([azman@usim.edu.my](mailto:azman@usim.edu.my))

### **KEYWORDS:**

Gamification  
Teaching aids  
Flexible education  
Global Tahfiz Game  
Innovation

### **CITATION:**

Azman Ab Rahman et al. (2022). The Effectiveness of Global Tahfiz Game (GTG) Gamification in Teaching and Learning in Malaysia. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 7(10), e001785.

<https://doi.org/10.47405/mjssh.v7i10.1785>

---

**Contribution/Originality:** This paper contributed to the existing literature about Gamification Education implementation in Malaysia. The results of this study provide further knowledge regarding the ability of gamification methods in education, especially the subject of tahfiz education, the advantages of gamification-based products such as GTG products as well as measuring the level of student ability in memorizing the Qur'an using gamification methods.

## 1. Introduction

Tahfiz education is the earliest in the history of Islamic education to maintain the authenticity of the Quran. Al-Quran memorization is a narration effort with the highest degree of validity either in terms of pronunciation and meaning (Ismail, 2018). Al-Quran which was revealed to Prophet Muhammad SAW through Jibril a.s in talaqqi and musyafahah then memorized by Prophet Muhammad SAW. Later, the companions also memorized the Qur'an when delivered by the Prophet SAW. The Al-Quran is preserved through three main methods, namely talaqqi and musyafahah, memorization, and writing the Al-Quran (Zakaria et al., 2018).

The development of tahfiz educational institutions in Malaysia has been influenced by the increasing awareness of the Muslim community towards the importance of religious life. Thus, they make tahfiz institutions a medium and platform to translate their Islamic consciousness. Parents' overwhelming response to tahfiz education encourages them to choose private tahfiz institutions to fulfill the limited opportunities in the mainstream tahfiz education stream (Ismail, 2018). Apparently, the diversity of these institutions leads to the diversity of methods used to produce students who have a good memory (Zakaria et al., 2018).

In addition, learning and teaching practices are very influential on the achievement of pupils and students especially (Kamaruddin & Mohamad, 2011). Learning methods that can give real challenges to students can translate results or accurate feedback on their achievements. A study by Misnan and Ahmad Sadadi (2003) found that weaknesses in the achievement of students' memorization were identified as being caused by the lack of strategies, techniques and motivation applied in tahfiz learning practices among tahfiz students.

Furthermore, the study of Hashim et al. (2013) also found that the failure of the organized tahfiz teaching and learning process is caused by the lack of specialized skills of tahfiz teachers offered in educational institutions. While tahfiz teachers were also found to use less high-tech teaching aids even though they agreed that the use of technology can help in improving the quality of memorizing the Quran (Marzuqi, 2008).

Thus, as an alternative to learning in a relaxed way with educational innovation products, it also indirectly benefits in contributing understanding to learning in formal classes. The use of games as one of the sources of gaining knowledge is one of the learning methods of the modern century that applies the characteristics of learning in a relaxed way but still achieves the objective. In understanding and improving the quality of al-Quran memorization, one of the teaching aids that can contribute to the generation of knowledge in a relaxed way is the Global Tahfiz Game (GTG) which was innovated by local researchers. This Global Tahfiz Game (GTG) product is one of the initiatives developed to facilitate the community, especially the huffaz in strengthening memorization with the concept of gamification as well as more innovative and effective entertainment.

## 2. Literature Review

Today's 21st-century education requirements have encouraged various innovations and new inventions in an effort to convey information and knowledge to society in general and knowledge seekers in particular. The creation of new methods and ways in this information delivery effort is to balance the potential and skills of a person with the

knowledge that has been built. The proliferation of knowledge through fun education methods is seen as more appropriate to be applied to today's generation because of the change in the thinking pattern of children today which is different from the previous generation. The desire to learn at the same time can play to give encouragement to the pioneers of innovation to make an innovation that fits with the thinking patterns of today's society. Gamification or Gamification is one of the learning methods that combine games with learning that is a two-pronged technique for users to gain knowledge while having fun in a relaxed way.

The use of the term gamification or 'gamification' is seen to be known around 2002 and is said to have been pioneered by Nick Pelling who is a computer programmer and creator of the computer game Frak! (Zainuddin et al., 2017). In 2008, Brett Terrill used this term in his blog and described the word as the adaptation of game mechanics into other web rules to increase browser engagement (Hamari, 2012). This term then returned to popularity around 2010 and is widely used in business for the purpose of boosting company marketing. In Malaysia, the term gamification in Teaching and Learning (P&P) is very synonymous with the concept of 21st Century Learning (PAK-21). The gamification approach is said to have great potential in the field of education because it provides space for more innovative and flexible learning (Hsin-Yuan & Soman, 2013). This is also supported by Hussain et al. (2014) that the gamification approach integrated with the application of game elements can not only stimulate thinking but can even stimulate and motivate its practitioners.

However, the application of learning using this gamification method is said to have not yet been widely implemented. Based on the author's search, empirical reports about its effectiveness on student learning are also not recorded much. This is likely due to some challenges in its implementation that limit the widespread use of gamification methods in learning in Malaysia. Hussain et al. (2014) stated that poor quality gamification production is one of the factors why gamification methods are not well received in learning in Malaysia. Rohaila and Fariza (2017) also think that gamification builders who do not have experience in the field of education are also one of the limiting factors. This point is also supported by Cugelman (2013), where the dumping of unconvincing gamification design is not caused by the game's functional error, but because it was developed by those who do not have a background in the field of education. Thus, this constraint gives an insight into how it might be adapted while the processing of the format, content structure, and narration does not meet the needs of the market and current learning (Noor et al., 2015).

Global Tahfiz Game (GTG) is an innovative product developed by researchers who have a background in the field of education as well as extensive experience in the construction of educational innovation products. This Global Tahfiz Game (GTG) has been developed with the aim of improving comprehension and memorization through gamification and fun educational methods that are more innovative and effective. According to its developer, GTG has three different levels of questions based on the 30 constituents of the Quran that are specially designed for those who want to strengthen memorization. Therefore, in order to measure the level of effectiveness, this empirical study has been conducted in the hope that it can add value to other studies related to the effectiveness of gamification in education as well as being a pioneer to other studies related to the effectiveness of using various teaching media in improving student knowledge.

### 3. Methodology

In order to measure the level of effectiveness of this GTG, the research instrument used in the research is a survey question distributed to 86 respondents. The respondents for the selected study were among tahfiz teachers in several selected tahfiz institutions that have been used as a study sample. Questionnaires are tools for collecting data for social science researchers. A questionnaire is actually nothing more than a form that is created specifically to fill in the information provided by each respondent in the interview (Mahdzan, 2005).

This study uses a data collection technique using a five-point Likert-type response scale as the respondent's response scale to all the statements used in the research instrument. The Likert scale is suitable for measuring the views given by respondents continuously about a practice of perception and attitude (Cohen et al., 2000). Therefore, respondents were asked to choose their answer by marking one of the numbers from 1 to 5 based on the description of the numbers which are Strongly Disagree (1), Disagree (2), Not Sure (3), Agree (4) and Strongly Agree (5). The process of analyzing the quantitative data is done descriptively through computerized analysis using the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics used are frequency and percentage.

### 4. Findings and Discussions

This study uses quantitative methods and the data collection process is done through questionnaires that are distributed by simple sampling to 86 respondents. This questionnaire only contains four parts. Part A is related to the demographics or personal information of respondents. Part B requires respondents to answer several questions related to the physical characteristics of the Global Tahfiz Game based on the respondents' opinions and then part C is a question related to the effectiveness of GTG in Teaching and Learning (PdP). While part D is a single question in the form of further comments or suggestions for the purpose of improving GTG products in the future. The findings of the study are as follows:

#### 4.1. Demographics of Study Respondents

Table 1 below shows the demographic findings of the respondents of the study involving tahfiz teachers at several selected private maahad tahfiz institutions. The total number of respondents who answered the questionnaire was 86 people. The majority of respondents are male teachers, which is 67.7%. while female teachers are only 23.6%. The age range of the respondents is between 20 and 41 years old. The majority are adult teachers in the age range of 26 to 30 years which is as much as 40.7% followed by teachers in the age range between 20 to 25 years as much as 30.2% then as many as 17.5% in the age range of 31 to 35 years and then 9.3% in the age range of 41 years and above. There is a small group of 2.3% in the age range of 36 to 40 years. Most of the tahfiz teachers teaching in these private tahfiz institutions are in the secondary school category which is 51.2% while the general category is 30.2%. Only 18.6% are primary school category.

Table 1: Demographics of Respondents

Details	Frequency	Percentage (%)
Gender		
Male	58	67.4
Female	28	23.6
Age	Frequency	Percentage (%)
20-25 Years	26	30.2
26-30 Years	35	40.7
31-35 Years	15	17.5
36-40 Years	2	2.3
41 Years and above	8	9.3
Tahfiz Institution Category	Frequency	Percentage (%)
Primary School	16	18.6
Secondary School	44	51.2
General	26	30.2

#### 4.2. Physical Characteristics of Global Game Tahfiz Game

Table 2 below shows the frequency values and percentages for 7 items in the construct of the physical characteristics of the Global Tahfiz Game (GTG). The results of the study show that most students agree, 48.8% say the uniqueness of the game, followed by teachers who are very interested in the concept of entertaining games with 38.3% of respondents agreeing. While 43.0% agreed, teacher respondents were interested in this game. Agreement on these three items shows that teachers are very interested in the concept and uniqueness of GTG games.

Table 2: Physical Characteristics of Global Game Tahfiz Game

Items	SD	D	U	A	SA
B01 The uniqueness of the game	3 3.5%	6 7.0%	15 17.4%	42 48.8%	20 23.3%
B02 The duration of the game is quite long	9 10.5%	11 12.8%	42 48.8%	16 18.6%	8 9.3%
B03 Interesting use of Graphics and Illustrations	1 1.2%	5 5.8%	20 23.3%	34 39.5%	26 30.2%
B04 An entertaining game concept	4 4.7%	4 4.7%	21 24.4%	33 38.3%	24 27.9%
B05 Interested in playing this game	2 2.3%	3 3.5%	22 25.6%	37 43.0%	22 25.6%
B06 The size of the text used is very clear	3 3.5%	11 12.8%	29 33.7%	33 38.4%	10 11.6%
B07 The level of interaction between players is active	4 4.7%	7 8.2%	24 27.9%	31 36.0%	20 23.2%

In addition, this GTG game also uses interesting graphics and illustrations in addition to the size of the text used is very clear. This is based on a survey of respondents who agreed, namely 39.5% and 38.4% respectively. This can attract teachers' interest in using game materials as teaching aids in PdP because of the physical features that attract students to play while learning.

Next, this GTG game has a level of interaction between active players with almost 36.0% agreeing. This shows that this game is very suitable for nurturing the players to interact

while playing. In conclusion, the researchers are confident that the level of physical characteristics of the Global Tahfiz Game (GTG) is at a good level based on the analysis of the data shown. The majority of respondents agree that the GTG game attracts attention to the physical uniqueness of the game which is suitable as a teaching aid in teaching and learning, especially the tahfiz subject in Malaysia.

### 4.3. Effectiveness of GTG in Teaching and Learning

Table 3 shows the percentage of trials and the effectiveness of GTG in PdP. The results of the study show that 36.0% agree and 26.7% strongly agree that GTG is very effective to be used as a new method in the teaching and learning process. This is because GTG is the first Islamic game board product in Malaysia that tests mastery of memorization and tajwid knowledge and is suitable for use in the PdP system. GTG complies with one of the 21st Century Education methods (PAK-21) which are learning while playing with 32.6% agreeing and 31.4% strongly agreeing. GTG is suitable as a teaching aid for tahfiz education in schools with 32.6% agreeing and 31.4% strongly agreeing. This method is seen to be able to make the education system more quality in line with the fourth element of the Sustainable Development Goals (SDG).

Table 3: Effectiveness of GTG in Teaching and Learning

Items	SD	D	U	A	SA
C01 GTG is very effective to be used as a new method in the teaching and learning process	4 4.7%	11 12.8%	17 19.8%	31 36.0%	23 26.7%
C02 GTG complies with one of the 21st Century Education (PAK-21) methods learn while playing	1 1.2%	7 8.1%	23 26.7%	28 32.6%	27 31.4%
C03 GTG is suitable as an aid teaching for tahfiz education at school	2 2.3%	7 8.1%	17 19.8%	33 38.4%	27 31.4%
C04 GTG games are able to attract student participation to repeat memorizing and testing tajwid knowledge	1 1.2%	7 8.1%	22 25.6%	25 29.1%	31 36.0%
C05 GTG games are suitable for use as educational material for entertainment (edutainment) in school	2 2.3%	8 9.3%	19 22.1%	41 47.7%	26 30.2%
C06 GTG games are very interesting and interactive	1 1.2%	7 8.1%	18 20.9%	40 46.5%	20 23.3%
C07 The GTG game makes it easier for students to memorize the Quran	2 2.3%	9 10.5%	21 24.4%	28 32.6%	26 30.2%
C08 The GTG game is effective in making it easier for teachers to teach Quran memorization techniques	2 2.3%	10 11.6%	24 27.9%	33 38.4%	27 31.4%

The GTG game can attract student participation to repeat the memorization and test tajwid knowledge with 36.0% agreeing and 29.1% strongly agreeing. This is because the method of playing while learning can eliminate the boredom of a person learning something. Likewise with the view that GTG games are suitable for use as educational material (edutainment) in schools, 47.7% agree and 30.2% strongly agree with this statement. GTG game products are very interesting and interactive. This is because it contains low IQ, medium IQ, and high IQ question cards that can provide different fun in terms of playing while interacting and this is out of the ordinary PdP system practiced in the national education system. 46.5% agree and 23.3% strongly agree with this statement.

A total of 32.6% agree and 30.2% strongly agree that the GTG game can make it easier for students to memorize the Quran. 38.4% agree and 31.4% strongly agree that the GTG game is effective in making it easier for teachers to teach Quran memorization techniques. Finally, the researcher is confident that the level of effectiveness of GTG is at a good level based on data analysis that shows that the majority of respondents agree that GTG games are effective for use in teaching and learning in Malaysia.

## 5. Discussion

The discussion of the results of the study shows that Gamification Global Tahfiz Game (GTG) can improve the effectiveness of understanding and memorization of students in tahfiz institutions in Malaysia. It can be used as a teaching aid by tahfiz teachers to facilitate and attract students to memorize the Quran. In addition, through Gamification GTG can also increase their knowledge and high understanding of the science of Hafazan and tajwid through mind test questions that are divided into three levels of difficulty. The colorful graphic pictures found on the GTG Gamification board cause the interest of the tahfiz students to increase. GTG has three different levels of questions based on the 30 components of the Qur'an that are specially designed for those who want to strengthen memorization. In addition, GTG can also strengthen the knowledge of the huffaz related to tajwid law and the management of tahfiz institutions in Malaysia as well as become teaching materials or teaching aids for tahfiz institutions in Malaysia.

In addition, the physical characteristics of GTG Gamification also give added value and become an attraction for tahfiz students to repeat memorization and test tajwid knowledge in a relaxed way. In terms of the size of the game and the size of the text, although it is quite large, it makes it easier to read the writing on the Gamification board. The concept of this GTG game is very interesting and very unique, plus the waiting period and playing take a relatively moderate amount of time. In the meantime, although the rules of the GTG game and the level of the mind test questions are quite difficult, the irony is that the level of interaction among tahfiz students when playing GTG is so active that it creates a high interest and desire to play again. Thus, the attractive physical characteristics of GTG Gamification and its positive impact prove that this entertaining educational material is very suitable for use as a teaching and learning material (PdP).

## 6. Conclusion

In general, the results of the study found that the innovative GTG scientific board game is suitable for use by all ages during the teaching and learning process that is not limited to the classroom only. The increase in knowledge and understanding of the respondents after playing the game has become a benchmark that GTG has improved the quality of education from the teaching and learning sessions because it is suitable to be used as an entertaining educational method for students to repeat memorization and master the knowledge of tajwid. This has indirectly supported the government's efforts to improve the national education system through PAK-21, which is playing while learning. It also fulfills the fourth element stated in the Sustainable Development Goals (SDG), which is quality education. This shows that GTG is a very good and effective product to be used in teaching and learning in Malaysia and is believed to be able to be a model and specific guide for scholars and Muslims to create a more creative and effective method of delivering Islamic knowledge.

## Ethics Approval and Consent to Participate

All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki.

## Acknowledgement

Thank you to the respondents who have cooperated in making this study a success.

## Funding

This study received no funding.

## Conflict of Interests

The author declared no conflict of interest when carrying out and publishing this research study.

## References

- Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education*. London: Routledge Falmer.
- Cugelman, B. (2013). Gamification: What It Is and Why It Matters to Digital Behavior Change Developers. *JMIR Serious Games*, 1(1), 25-42
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). *Does Gamification Work? – A Literature Review of Empirical Studies on Gamification*. In Proceedings of the 47<sup>th</sup> Hawaii International Conference on System Science. Hawaii, USA, January 6-9, 2014
- Hashim, A., Tamuri A.H. & Jemali, M. (2013). Latar Belakang guru tahfiz dan amalan teknik pengajaran tahfiz al-Quran di Malaysia. *The Online Journal of Islamic Education*, 1(1), 28-39.
- Hsin-Yuan, W. Y., & Soman, D. (2013). *A Practitioner's Guide to Gamification of Education*. Toronto, Canada: Rotman School of Management.
- Hussain, S. Y. S., Tan, W. H., & Idris, M. Z. (2014). Digital Game-Based Learning for Remedial Mathematics Students: A New Teaching and Learning Approach in Malaysia. *International Journal of Multimedia Ubiquitous Engineering*, 9(11), 325-338.
- Ismail, A. (2018). *Amalan pengajaran pensyarah tahfiz di maahad tahfiz al-Quran kelolaan JAKIM* [Doctoral Thesis, Universiti Kebangsaan Malaysia]
- Kamaruddin, M. I., & Mohamad, A. (2011). Kajian gaya pembelajaran dalam kalangan pelajar UTM. *Journal of Educational Psychology and Counseling*, 2, 51-77.
- Mahdzan A. A., (2005). *Kaedah Penyelidikan Sosio Ekonomi (Edisi Ketiga)*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Marzuqi, M. A. R. (2008). *Pengajaran Mata Pelajaran Hafazan Al-Quran: Suatu Kajian MaahadTahfiz Al-Quran Zon Tengah* [Master's Dissertations, Universiti Pendidikan Sultan Idris]
- Misnan, J. & Ahmad, S. H. (2003). *Hubungan antara teknik menghafaz al-Quran dengan pencapaian Kursus Tahfiz wa al-Qiraat pelajar semester empat dan lima di Maahad Tahfiz wal Qiraat di Perak*. Teknik pengajaran Tahfiz al-Quran Conference 2003, Kolej Universiti Islam Malaysia, Kuala Lumpur.

- Noor, N. M., Yusoff, F. H., & Lob, R. (2015). *The Potential Use of Augmented Reality in Gamification*. International Computing and Informatics. (pp. 159-167)
- Rohaila M. R., & Khalid, F. (2017). Gamifikasi: Konsep dan Implikasi dalam Pendidikan, *Pembelajaran Abad ke-21: Trend Integrasi Teknologi*. (pp. 144-154). Bangi: Universiti Kebangsaan Malaysia.
- Zainuddin, N., Rahman, A. A., Musa, Z. M., Ismail, N. & Mokhtar, S. Z. (2017). Inovasi Gamifikasi Global Zakat Game Dalam Pendidikan Islam. *Pemeriksaan Kutipan dan Agihan Zakat di Malaysia* (pp. 355-370)
- Zakaria, F.I, Che Noh, M.A, & Abd Razak, K. (2018). Amalan Pembelajaran Pelajar Tahfiz di Institusi Tahfiz Swasta. *Jurnal Pendidikan Malaysia*, 1(1), 141-148.