

LEARNING ZAKAT USING EDUCATIONAL BOARD GAME FOR TEENAGE LEARNERS

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Abstract

This study examined teenagers' acceptance on Global Zakat Game (GZG), a board-based educational game to understand the almsgiving in Islam. Educational board game is a creative approach to create an active learning environment in education which is very popular among Generation Z teenagers. They are well known with their technologically efficient. Studies on teenagers acceptance on educational games based on simple technology such as board games are not much done especially in Islamic finance such as in zakat field. A questionnaire survey was conducted on 131 teenagers who have experienced in playing GZG. The data were analyzed descriptively using SPSS to determine the level of acceptance on GZG among Generation Z teenagers. The result indicates that the level of acceptance is very high among respondents on gamification approach which introduced by GZG. The high mean values are obtained based on physical characteristic of GZG (mean: 3.74) and effectiveness of this board game in learning zakat (mean: 4.24). A T-test has been conducted to find out the difference among male and female in level of acceptance on GZG. The high mean of GZG acceptance obtained from respondents proved that teenagers accepted the new way of learning zakat by playing board game. This study implies to educators especially Islamic Education teachers in secondary school and they need to be more proactive by using interactive educational game in teaching. Researchers suggest future studies to be done by using qualitative method through respondents' interviews and using theoretical model such as the Technology Acceptance Model (TAM). By exploring the teenagers' learning behaviour, the study finds a research gap that enriches the existing educational approach in Islamic finance particularly the zakat. The paper is the first to provide evidence on the acceptance of teenagers on Islamic finance board game.

Keywords: Zakat, Education, Game, Creative, Active.

INTRODUCTION

Zakat is a term referring to almsgiving or donation specifically in Islamic finance. It is one of the five pillars in Islam which is an obligation only for Muslims who own wealth to donate the money to the poor and the needy. It is a form of worship to the God and a type of social assurance to reduce the poverty from society (Abd. Khafidz and Shamsudin, 2018). However, there is a general misconception of zakat which has not been in line with the true spirit of zakat in Islam (Akhyar Adnan and Barizah, 2009) especially in the distribution of zakat which is aimed to improve the economy, health and education of the poor (Rahmat, 2019 & Muhd. Faisal, 2018). Therefore, the understanding and awareness about zakat should be enhanced since their early age.

A board-based educational game named as Global Zakat Game (GZG) was created to educate the youngsters about zakat. A board game is an interactive educational game which is very popular among Generation Z teenagers. This study aims to examine teenagers' acceptance on the GZG. They are well known with their technology efficiency. Studies on teenagers acceptance on educational games based on simple technology such as board games are not much done especially in Islamic finance such as in zakat.

LITERATURE REVIEW

Each generation can be described by their age or era. Every generation of human or society has different personality, beliefs, values, cultures, perspectives, favorites, skills and trends in life (Lancaster & Stillman, 2002). Technology evolves from generation to generation to fulfill the necessity of life based on the will. According to Tapscott (2008), Generation Z is a group that was born in 1998 to 2009, while Strauss (1991) defined Generation Z as an individual group born in the mid 1990s until 2010s. Basically, they are young people who are now aged between 9 to 20 years old.

The Generation Z's character is different than the previous generations. This generation prefers to be self-sustaining without supervision, which is uniquely different than the previous generation which loves more teamwork and cooperation in all activities. This generation is more individualistic in all things, for them all things exist in cyberspace and the cyber world (Embi, 2016). The students of Generation Z are those who are exposed to internet technology from young age and interact more digitally or in cyberspace. In addition, Generation Z is also known for several other titles such as Digital Natives, Internet Generation and Zeds (Singh, 2014).

Generation Z's environment is different from previous generations due to the era of information and digital technology, making the Generation Z's structure and their way of thinking more different from the previous generation. Their thinking structure is more likely to receive visual and practical based learning such as interactive games, collaborative projects and challenges in assignments, rather than classroom modes and discussions. Generation Z appreciate something they can see and try by themselves (Thomas & Srinivasan, 2016).

Hence, recognizing Generation Z's character is very important to help providing the curriculum and learning method which are more appropriate to them. Among the methods of teaching and learning introduced are learning methods that use gamification approaches such as board games. Gamification is a concept introduced to explain how things can be presented in the form of games. Gamification serves as a method of applying game elements in a subject that aims to create a fun and enjoyable playing experience (Larsen, 2019 & Rahman et al, 2018).

On the initiative of motivating students to stay active in the classroom, helping teachers prepare teaching materials, creating a medium of appreciation for students and attracting them to focus more and mastering the lessons, a new innovative product called Global Zakat Game: Bijak Zakat version 1.0 was created and launched on October 11, 2016 at the National Zakat Convention held in Universiti Sains Islam Malaysia.

The idea of producing this board game product started while observing the zakat collection in Malaysia which has not yet reached the targeted level. The statistics of zakat payers in the Federal Territory 2015 shows that only 166,787 people paid Zakat to PPZ-MAIWP from 1.7 million people (MAIWP's Zakat Report, 2015). Among the factors contributing to this problem is the lack of understanding and awareness of the community in the obligation of the zakat and the differences of zakat's practices in some countries (Sulong, 2012). Zakat management also have to adapt to contemporary challenges including understanding the recipients of zakat (Pg Md Salleh, 2015). To increase the understanding and awareness, a board game approach has been selected as a successful way to educate children and the society (Skillen, 2018; Cavalho, 2018; Dove, 2016 & D'Astous, 2007).

The gamification method introduced in GZG is also capable of showing that learning, particularly in zakat is something that is exciting and fun to be participated in. The existence of gamification method in education helps and eases the process of delivering Islamic knowledge which are loaded with source links and Quranic verses and Hadiths. New innovation introduced in the field of zakat such as GZG can be a model and a special guide to scholars and Muslims to create a more creative and effective way of delivering knowledge.

Zakat themed board games like GZG that meets this informative and interactive features is particularly suitable as a new medium of teaching and learning related to the subject of zakat for Generation Z. Hence, this study focuses on Generation Z teenagers and their acceptance on board-based educational games to study zakat. Evaluations were conducted on respondents representing the youth of Generation Z who have gone through the GZG playing experience. The results of the study are expected to positively impact the various parties, whether researchers, educators and students from Generation Z.

METHODOLOGY

This quantitative study has been using the survey method by distributing questionnaires to 131 participants of National Competition of Global Zakat Game organized at Dewan Tuanku Canselor, Universiti Sains Islam Malaysia (USIM). Survey method is considered as the best way in collecting data as in social science study because this method provides the right explanation for representing a large population (Babbie, 2001). Respondents of the study have also been exposed on how to understand the zakat calculation by playing GZG.

The questionnaire was distributed to participants after the competition. Questionnaire instruments are divided into three sections, namely Section A on demographic information, Section B on the physical characteristic of Global Zakat Game and Section C on the effectiveness of GZG in learning zakat. The data collected from the questionnaire were analyzed using SPSS version 20.0 (Statistical Package for Social Sciences version 20.0). Items in Section A were analyzed based on frequency and percentage. The data obtained from Section B and C were analyzed based on mean descriptive statistic. The interpretation scale used for the mean in this study is as in Table 1. In addition, t-test analysis was also conducted to find out the mean score comparison between the gender and to determine the difference of acceptance level between male and female.

Table 1: Mean score interpretation

Mean score	Interpretation
1.00 to 2.33	Low
2.34 to 3.66	Moderate
3.67 to 5.00	High

Adapted from Jamil Ahmad (2002)

DATA ANALYSIS

Demographic Analysis

Respondents consist of 131 participants of National Competition of Global Zakat Game and they are aged between 10 and 19 years old. 74 respondents were male (56.5%) and 57 respondents were female (43.5%). The highest number of respondents was represented by high school students which were 78 respondents (59.5%), followed by primary school students; 44 respondents (33.6%), students of higher learning institution; 8 respondents (6.1%) and general category participants; only one respondent (0.8%).

Acceptance Level of Generation Z's Teenager On GZG

The findings as outlined in Table 2 show that a high level of acceptance from respondents on GZG board games. It is based on the mean value of respondents' acceptance on the physical characteristics of GZG which recorded as 3.74, while the level of effectiveness of GZG in learning zakat was 4.24.

Table 2: Descriptive Statistic of The Teenagers' Acceptance (N: 131)

Item	Mean Score	Interpretation
GZG physical characteristic	3.74	High
Effectiveness of GZG in learning zakat	4.24	High

Factors Influencing Generation Z Teenagers' Acceptance on Board Based Educational Game To Learn Zakat

In this study, two main factors of teenagers' acceptance on GZG have been discussed. The acceptance factors are based on the physical characteristics of the GZG and the effectiveness of GZG in learning zakat. With regards to the physical characteristics of the GZG, the findings showed in Table 3 that there were 7 items in the questionnaires recorded as high mean values while the remaining 6 items recorded as moderate in values.

Table 3: Mean Score And Interpretation For GZG Physical Characteristic

Item	Mean Score	Interpretation
Difficulty level	2.73	Moderate
Game instructions and rules	3.29	Moderate
The uniqueness of this game compared to others	4.24	High
The time to complete the game	3.11	Moderate
Game design (graphics and illustration)	4.44	High
Interest level to play	4.47	High
Game concept and idea in the current theme	4.48	High
Desire to play the game in the future	4.46	High
Level of interaction with others	4.36	High
Waiting time for player's turn	2.64	Moderate
Size of board game	3.00	Moderate
Text size used	3.07	Moderate
Level of zakat understanding after the game play	4.34	High

Physical features of GZG that show a high level of acceptance among respondents are the uniqueness of this game compared to other games, game designs (graphics and illustrations), interest level to play, game concept and idea in the current theme, the desire to play the game in the future, level of interaction with others and level of zakat understanding after the game play. Physical features that record moderate mean values are through difficulty levels, game instructions and rules, time to complete the game, waiting time for player's turn, size of board game and text size used.

Although the mean value obtained were moderate in 6 items, it is a positive benchmark because the moderate response proves the respondents' experience through

the moderate difficulty levels, which means the game is not too difficult or too easy to be played, game instructions and rules that are not too complex or too short and the time to complete the game is not too long or too short. Responses for the waiting time for player's turn is also moderate, as well as the size of the GZG board game and the size of the text used which is not too small or too large. In fact, the overall total of acceptance factor based on the physical characteristics of GZG is still at a high level which is a mean score of 3.74.

The second factor that affects the acceptance of Generation Z teenagers toward board-based educational games in learning zakat can be measured through the effectiveness of GZG in learning zakat. Each item in the factor of GZG effectiveness in learning zakat recorded high mean values as showed in Table 4. This means that the high level of GZG effectiveness is the main factor in teenagers' acceptance on board-based educational game to learn zakat with total mean score of 4.24.

Table 4: Mean Score And Interpretation For The Effectiveness Of GZG In Learning Zakat

Item	Mean Score	Interpretation
My knowledge of zakat increased after playing GZG	4.40	High
My understanding of zakat increased after playing GZG	4.28	High
GZG can increase my interest in studying topics in zakat	4.27	High
GZG content consists of zakat learning syllabus	4.33	High
GZG enable the mastery of theory and concept of zakat in general	3.77	High
GZG enhanced the skill to calculate zakat	3.70	High
All zakat related topics are contained in GZG	4.15	High
GZG is suitable for use in all ages	4.27	High
GZG can be used as an edutainment by the whole family	4.53	High
GZG is suitable as an alternative edutainment material of Islamic games	4.66	High

Comparison of Acceptance Levels Between Gender Based on GZG Physical Characteristic Factor

T-test was conducted to find out the level of acceptance of board-based educational games for learning zakat among teenagers; boys and girls based on the physical characteristics of GZG. The hypothesis of the study was "There was no significant difference between the acceptance level of GZG game based on the factor of physical characteristics and gender". The t-test was conducted to determine whether there was a significant mean difference between the dependent variable (the acceptance level based on the physical factor of GZG) and the independent variable (gender).

Based on Table 5, it is found that the t-value for comparing the level of acceptance of board-based educational games to study zakat among teenagers, boys and girls based on the physical characteristics of GZG is $t = -2.44$ and significant level $p = 0.14$. The significant level is greater than 0.05 ($p = 0.14 > 0.05$), which means that the t-test result accepted the hypothesis of the study. The result concludes that there is no evidence showing a significant difference between the level of acceptance of board-based educational games to learn zakat based on the physical characteristics of the GZG and gender.

Table 5: Comparison Of Acceptance Levels Between Gender Based On GZG Physical Characteristic Factor

Aspect	Gender	N	Mean	Std. Deviation	t-value	Sig. ($\alpha = 0.05$)
Acceptance level of GZG	Male	74	3.66	0.51	-2.44	0.14
	Female	57	3.85	0.33		

Sig. level: $p < 0.05$

Comparison of Acceptance Levels Between Gender Based on Effectiveness of GZG in Learning Zakat Factor

T-test was also conducted to find out the level of acceptance of board-based educational games to learn zakat among boys and girls based on the effectiveness of GZG in learning zakat. The hypothesis of the study was "There was no significant difference between the level of acceptance of the GZG based on the effectiveness of the GZG in learning zakat and gender". The t-test was conducted to determine whether there was a significant mean difference between the dependent variable (acceptance based on the effectiveness factor) and the independent variable (gender).

Table 6 illustrates the t-value for the comparison of GZG level of acceptance for respondents, boys and girls based on the effectiveness of GZG in learning zakat ($t = -2.26$) and significant level ($p = 0.02$). This significant level is smaller than 0.05 ($p = 0.02 < 0.05$). Therefore, the t-test result rejected the hypothesis of the study and there is evidence that shows the significant differences between acceptance levels based on the effectiveness factor in learning zakat for male and female. Mean score of acceptance level for male (mean = 4.15) is lower than female (mean = 4.35). This concludes that there is evidence that shows the acceptance factor of GZG based on its effectiveness in learning zakat is higher among girls than boys. However, the differences among boys and girls are not much apparent and the mean values obtained (4.15 & 4.35) are still in the high level of acceptance.

Table 6: Comparison of Acceptance Levels Between Gender Based on Effectiveness of GZG in Learning Zakat Factor

Aspect	Gender	N	Mean	Std. Deviation	t-value	Sig. ($\alpha = 0.05$)
Acceptance level of GZG	Male	74	4.15	0.54	-2.26	0.02
	Female	57	4.35	0.44		

Sig. level: $p < 0.05$

DISCUSSION AND CONCLUSION

Exposure to digital and internet technologies has shaped the perception and thinking skills of Generation Z that is very different from the previous generation. Likewise in the process of teaching and learning, different methods need to be introduced to Generation Z as opposed to the methodology of the previous generation in order to make it more interesting and to achieve its effectiveness. According to Harun et al (2017), hands-on teaching, discussion and project-based learning are particularly popular among Generation Z compared to face-to-face learning.

Forms of face-to-face learning such as lectures that require them to hear and write notes are not favored. The hands-on lessons and discussions are in line with Generation Z because they want to be involved and become a part of the teaching and learning process. Generation Z also prefers if the learning lesson takes place outside of the class as the learning process becomes less formal and it can be done by themselves. According to Bart (2011), Generation Z is attracted to a variety of active and learning methods that are not tedious. They also love the concept of "less lecture, use of multimedia, and interactions with peers".

Therefore, a board-based educational game introduced by Global Zakat Game to learn zakat is very suitable and accepted among Generation Z because it fulfills their preferences such as "hands on", less formal and learning by experiencing and interacting. The results of this study showed that high mean score (3.74 and 4.24) in respondents' acceptance of GZG through the factor of physical characteristic and its effectiveness proved that the Generation Z accepts the board-based educational game as a method of learning zakat. Board games have become one of the useful tools in teaching and learning. Many instructors and educators have chosen to use board games to enhance the way of delivering course contents. An effective board game will help students understand the concept quickly and get involved in experiential learning, where students can manage and

solve problems in an actual situation (Zainuddin et al, 2019). From the observation by Rahman et al. (2018), GZG enables players to experience, reflect on their inner characteristics, fully express and reveal their emotions, ideas, experiences and behaviors.

The comparison of the acceptance level of board-based educational games to learn zakat among teenagers; boys and girls based on GZG physical characteristic factor shows that the result is not significant, while the effectiveness factor of GZG in learning zakat shows significant result which means that there is a difference in the level of acceptance among boys and girls. There is evidence that higher acceptance levels are among girls (mean: 4.35) compared to boys (mean: 4.15).

There are many studies on the comparison of technology acceptance levels between gender such as Goswami and Dutta (2016), Wang et al. (2009), Ong & Lai (2006) and Gefen & Straub (1979). These studies on gender differences in perceptions and technology acceptance in learning have found various results. The study of Ong & Lai (2006) shows that technology acceptance among women is higher than men, influenced by the ease of use of the technology. In some contexts, gender has been seen to have a significant impact on the acceptance of technology in learning while in some other contexts, gender differences cannot be identified.

As a conclusion, by exploring the teenagers' learning behaviour on Islamic finance education, the current study finds a research gap that enriches the existing educational approach particularly the zakat. Educational board game approach to learn Islamic finance education especially zakat is very important as a method of diversifying the teaching and learning methods among Generation Z teenagers. The level of GZG acceptance among Generation Z teenagers is high based on the physical characteristics of GZG and the effectiveness in learning zakat.

SCOPE FOR FUTURE RESEARCH

The implication of this study on the religious education practice among educators especially Islamic Education teachers in secondary schools suggested to be proactive and applying the teaching method using board games such as Global Zakat Game as it is more preferable by Generation Z teenagers. Future studies are suggested to be done by using qualitative method through respondents' interviews because throughout quantitative method, respondents cannot provide such subjective information as respondents are controlled by a structured questionnaire.

In addition, researchers also suggest that future studies can be carried out using theoretical model such as the Technology Acceptance Model (TAM), which measures the success of a system based on user acceptance levels based on three main factors; usefulness, ease of use and attitudes towards usage of the system.

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