

The Development of Serious Game to Teach the Concept of Dunya and Akhirah to Young Muslims

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Abstract

Nowadays, young Muslims are so busy with their needs in Dunya (this World) that they overlook the importance of preparing for life in Akhirah (the Hereafter). After all, one of the teachings in Islam is to prioritize the Akhirah than the Dunya. Because of the lack of awareness, many young Muslims neglect their religious duties such as Sholat or reciting al-Qur'an. To help introduce, teach, and remind them the concept of balancing life in Dunya and Akhirah, a solution that can pique their interest is a necessity. Therefore, this paper explain the development process of serious game to teach the concept of Dunya and Akhirah. The game implements the main mission and hidden mission that resemble Dunya and Akhirah responsibility respectively. The game's effectivity was then evaluated with pre-test and post-test method. The result suggested that the game can increase the player's knowledge in Dua and awareness in Dunya and Akhirah. This shows the potential of the game as learning media.

Keywords: Serious Game, Education Game, Dunya and Akhirah, Islam

1. Introduction

One of Islam's core teaching is for Muslim to prioritize life in Akhirah (the Hereafter) than life in Dunya (this World). This concept has been mentioned in many verse in al-Qur'an (e.g., in QS. al-Qasas [28] verse 77 and in QS. al-Baqarah [2]:201). As a consequence, Muslim need to make use of their temporary time in Dunya to prepare for their eternal life in Akhirah. This includes fulfilling their religious duty (Ibadah) such as Sholat or reciting Quran while not neglecting their social duty (Muamalah) such as studying and working. In reality, although most Muslim does not neglect their responsibility for the Akhirah, it does not mean that they will prioritize it over their responsibility in Dunya.

This problem also occurs in young Muslims. The young adult at the age of 16-20 years old mark the transition point from child into adult [1]. At this stage, as parents' control and monitoring are decreased, they start to learn to be independent. During this learning process, it is not surprising that they will struggle to manage their life and maintain focus on various essential things like education, food, entertainment, and religion. However, it is not uncommon that religious duty does not become their main priority, or in some case, is even neglected. Obviously, this does not follow the al-Qur'an teaching. If nothing is done to prevent this, then they will bring this routine into adulthood and it will be more difficult to rectify. Therefore it is important to introduce, teach, and remind them the concept of balancing life in Dunya and Akhirah.

To teach this concept to young adult Muslims segment, it is necessary to find an approach that suitable to their demographic and also well-received by them. Teaching the concept in class might be boring for them and preaching the concept in Masjid might be effective only if they regularly come

to Masjid. Therefore, an alternative approach is needed. For this reason, serious game can be a solution.

Serious game utilize the principle of game design for education, training, or persuasion purpose [2]. Several studies has shown its capability to increase student's motivation (e.g., [3]–[5]) and to help achieving the learning outcome [6]. Furthermore, serious game can created a simulated world that model the real world. In the simulated world, player can make decision, experience the consequences, and reflect on it without fearing the risk of any failure or wrong decision [7]. Aside from the educational perspective, game can be accepted by young Muslims easier and quicker since many young people are already familiar with it [8]. All these reasons make serious game as suitable alternatives for young Muslims.

Because of that, this paper elaborates the development process of serious game to teach the concept of Dunya and Akhirah to young Muslims. The rest of the paper is organized as follows: the second section outlines the game concept design process of which the learning material is delivered to the player to achieve the learning outcome, the third section explain the developed based on the game concept and the evaluation process to investigate if the learning outcome is successfully delivered, and the final section sums up the main findings of this paper and outline the future work.

2. Method

2.1. Learning Outcome and Target Player

Before designing the concept of the game, it is essential to define the learning outcome first. In the first section, it has been described that the main problem is the tendency for the young Muslims to less prioritize their religious duty over other duties. This can indicate that they consider Dunya as more important than Akhirah. Because of that, the expected outcome of the learning process is a change in attitude or behavior so that they prioritize their Akhirah more. At minimum, the game must be able to raise their awareness of the importance of preparing oneself for life in Akhirah.

After determining the learning outcome, the next step is to decide on the target player characteristic. Since it is important to teach young Muslims during their learning process to become independent, the game is intended for player whose age is ranged from 16-20 years old. In addition, since one of the most important religious duty is to Sholat in Masjid and Sholat al-Jumu'ah (Friday Prayer), the game is targeted only for male because only they are obliged to perform that.

2.2. Game Concept

Based on the learning outcome and the target player, the design process of the game concept can be started. First, the concept of balancing life in Dunya and Akhirah is an abstract subject. However, the success indicator of the learning process in this subject is a change in behavior. For teaching such concept with observable behavioral change, a simulation is a better learning method [9]. With simulation, it is important to simulate reality. However, it is not enough to just simulate the physical appearance. The context and the situation within the game needs to mimic the real world. This is essential to ensure that the knowledge or skill acquired in the game is transferable into the real world.

Based on the requirement for a simulation as learning method, an appropriate concept for the game is to represent both Dunya and Akhirah responsibilities in the game. In Islam, examples of the former include working, studying, or doing homework; while examples of the latter include. Sholat in Masjid, recite al-Qur'an, or sadaqah. In real life, Muslims are more aware to signs or hints that relates to Dunya responsibilities and instantly act upon it. Although signs or hints related to Akhirah responsibilities can be perceived as well, such as donation box in Masjid or the sound of Adzan, Muslims still tend to overlook it and do not instantly motivated to fulfill it. To create similar situation in the game, one idea is to implement two types of mission: main mission and hidden mission.

As the name suggest, the main mission will be presented as main goal of the game that the player will attempt to accomplish. The main mission will represent the Dunya responsibilities, seeing how many young Muslims tend to focus on this in real life. On the other hand, the hidden mission will not be featured as prominently as the main mission. In fact, the idea is that there will be no mention of this mission throughout the game aside from only a vague hint. The hidden mission will represent the Akhirah responsibilities. Although the main mission is prominently featured to the player, the hidden mission in actual is the true main goal of the game. This means that the game will only track the player progress toward accomplishing the hidden mission. This is the reason why the hidden mission is kept secret with minimum hint. If the player initially knows that his performance is judged solely on the hidden mission accomplishment, there is a likelihood that the player might only pursue it for the sake of winning the game. Thus, the learning process can be disrupted. In addition, keeping the hidden mission as secret can evoke surprise when it is revealed. Surprise has been shown in many studies to be able to stimulate reflection [10].

While playing the game, there will be no dedicated gameplay, narrative, or session to teach the concept of Dunya and Akhirah. The main learning session will be conducted once the game ends, the moment when the nature of the game is debriefed to the player. At this moment, the game will display which mission that the player prioritizes more during playing session. Based on that, the game will either praise the player for prioritizing the Akhirah or remind the player and elicit reflection if they pritiotize the Dunya. This debriefing session is expected to evoke player’s reflection and raise his awareness about the importance of balancing life in Dunya and Akhirah.

2.3. Main Mission and Hidden Mission

Once the game concept is finished, the next step is to design a narrative and gameplay that follows it. Since the target player is young male Muslims, the narrative needs to correspond to them. Based on that, the narrative is designed to potray a young Muslim who wants to take an entrance examination test to continue his study. This narrative is created to closely resemble the target player and part of their experience so that they can easily identify with the main character.

Table 1. Main Mission Task Distribution

Day	Task
Wednesday	Register for the exam
	Study
Thursday	Take the exam
Friday	See the exam result

From there, the main mission is designed to associate with tasks that related to entrance examination. These include “register for the exam”, “study”, “take the exam”, and “see the exam result”. On the other hand, the tasks which are chosen for the hidden mission are “Sholat at Masjid”, “Sholat al-Jumu’ah”, “recite al-Qur’an”, “sadaqah”, and “fasting”. To better tell the full story of a university entrance examination, while also considering that some hidden mission only occur at specific time (“fasting” and “Sholat al-Jumu’ah”), both tasks for main mission and hidden mission were distributed over 3 days from Wednesday to Friday. Table 1 and Table 2 shows the task distribution for main mission and hidden mission respectively. Specifically for hidden mission, some task occur everyday as they are not exclusively associated with a certain day. In addition, “Sholat at Masjid” occur 5 times a day, just like in the real life.

Table 2. Hidden Mission Task Distribution

Day	Task
Everyday	Sholat at Masjid
	Recite al-Qur'an
	Sadaqah
Thursday	Sahur
	Fasting
Friday	Sholat al-Jumu'ah

As for the gameplay, the player controls the main character and needs to fulfill all the main mission task. Most of the tasks can be completed just by come to specific place before the time is run out. However, for “take the exam”, unless the player completes the “study” beforehand, then he will surely fail it. If player fails to complete the task, then the game is over.

For the hidden mission, most task can be completed by either making the right choice during game dialog (for “sahur”), avoiding doing certain activity (for “fasting”), or pressing the action button at certain location (for “recite al-Qur'an” and “sadaqah”). Specifically for “Sholat at Masjid”, this task will only be completed if the player performs it 5 times a day. To perform it, player needs to come to the Masjid at the right time, which is signaled by the sound of Adzan. “Sholat al-Jumu'ah” is completed the same way as “Sholat at Masjid”, although player need to perform it once at Friday afternoon. For every completed hidden mission task, the game will record it and display all the result at the end of the game. Depend on the number of completed task, the game will either praise the player or remind them of the Dunya and Akhirah concept.

To complement the learning outcome, the game will also teach daily Dua using the character dialog. This special dialog will occur at a certain event in association with the proper Dua. For example, a Dua for leaving a house appears as the character's dialog when the player is about to open the door to the outside, whereas a dua for fasting appears when he wants to perform fasting. With this concept, it is expected that player will also learn to memorize a daily Dua.

2.4. Game Map

To better portray the narrative of a young Muslim aiming to pass the university entrance exam, the game map is designed to illustrate the university and its surrounding. Figure 1 shows the design of the game map. Most of the task for the main mission occurs in registration office and university. On the other hand, most of the task for the hidden mission occur in Masjid. Aside from both missions, player can go to the game center to play game and eat in either the restaurant or the café.

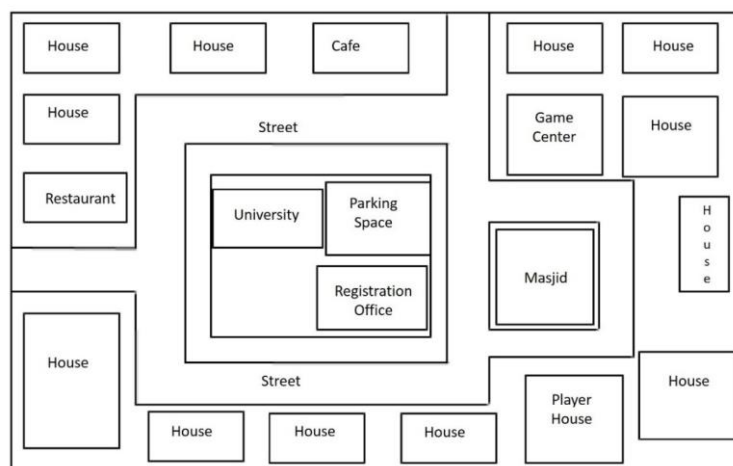


Figure 1. Game Map

3. Result

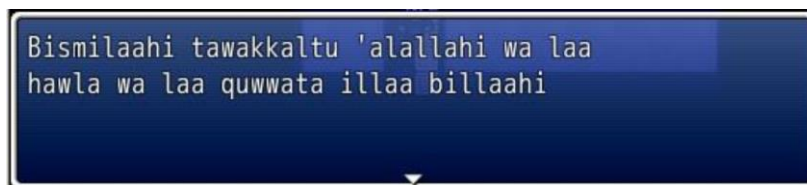
3.1. The Game

Based on the concept, the game was developed using RPG Maker VX Ace [11]. Figure 2 shows the developed game map and the position of the building including player house (1), university (2), registration office (3), Masjid (4), Game Center (5), Café (6), and Restaurant (7).

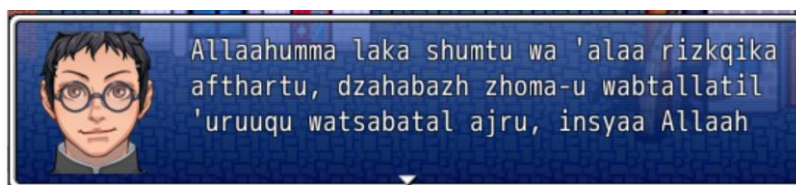


Figure 2. Developed Game Map

Two dialog examples of the implemented Daily Dua can be seen in figure 3. The top one shows the Dua for leaving the house while the bottom one shows the Dua for fasting.



(a) Dua for leaving house

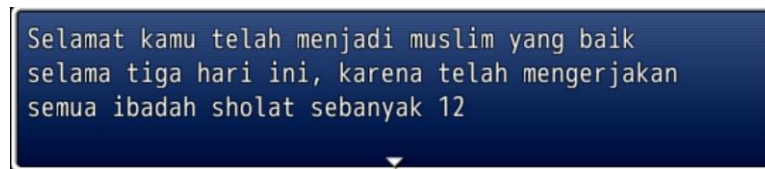


(b) Dua for fasting

Figure 3. Implemented Daily Dua

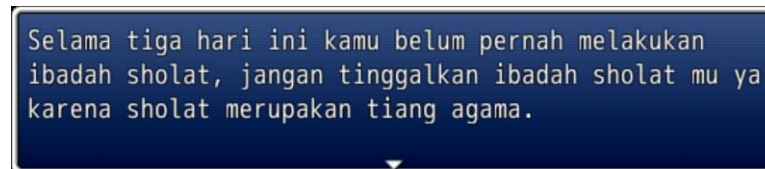
As for the debriefing session at the end of the game, figure 4 shows the different dialog based on player's progress in the game. The top one shows how the game praise the player for not neglecting

Sholat throughout the game. On the contrary, the bottom one shows how the game inform the player if he does not prioritize Akhirah responsibilities and then remind him of its importance.



Selamat kamu telah menjadi muslim yang baik selama tiga hari ini, karena telah mengerjakan semua ibadah sholat sebanyak 12

(a) Dialog for prioritizing Akhirah responsibilities



Selama tiga hari ini kamu belum pernah melakukan ibadah sholat, jangan tinggalkan ibadah sholat mu ya karena sholat merupakan tiang agama.

(b) Dialog for prioritizing Dunya responsibilities

Figure 4. Implemented End Game

3.2. Evaluation

At the next step, the game was evaluated with the target player to investigate its capabilities to achieve the learning outcome. Based on that purpose, the evaluation process utilized the pre-test and post-test method by comparing the player's questionnaire answer before and immediately after playing the game. It needs to be noted though that the process did not cover the longitudinal effect of the game.

To measure changes in player, the evaluation employed questionnaire comprised of nine open questions. The open question was chosen to avoid participant answered the question correctly by luck. Eight of the questions asked the participant to write down a certain Dua. These questions will be used to understand if player can successfully learn Dua from playing game. The final question focused on the player's daily activity. This is used to understand how high participant awareness to Akhirah responsibilities is within their daily activity. The questionnaire employed in the pre-test and post-test was similar.

The participants of the evaluation process comprised of young male Muslims ranged from 16-20 years old, similar to the target player characteristics. Participants were recruited using purposeful sampling to confirm that they match with the target player. In the end, 20 participants were recruited for the evaluation.

The procedure of the evaluation process was structured as follows:

1. The evaluator introduced the game to the participants
2. Participants were asked to answer the pre-test questionnaire
3. Participants played the game once until the end.
4. After the debriefing session, participants immediately were asked to answer the post-test questionnaire.

After the evaluation process, participants' pre-test and post-test score are calculated. Since the questions related to Dua is an open question, score is given based on the amount of correctness in the answer. For each question, the score is ranged from 0-100. As shown in figure 5, the pre-test score average is 32.19 (SD = 14.52) while the post-test score average is 95.63 (SD = 8.39). Obviously, there is an increase in score which indicates that participants' knowledge in Dua is increased after playing the game. Further statistical analysis using paired sample t-test with 95% confidence interval shows that the difference is significant ($t = 17.19$, $p < 0.001$). Based on these results, it can be concluded that the game is able to teach Dua to its player.

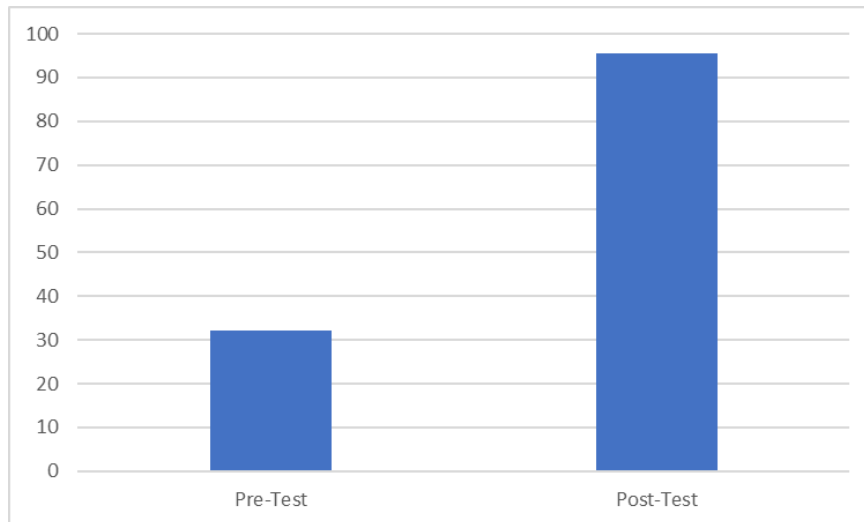


Figure 5. Pre-Test and Post-Test Average

Regarding the daily activity question, since there is no right or wrong answer, the score is not calculated. Instead, participants' answer in both questionnaire are compared to spot any differences. Since the question is meant to understand how high participant awareness to Akhirah responsibilities is within their daily activity, the analysis focus on any mention of Sholat, fasting, Sadaqah, recite al-Qur'an, or any activity related to Akhirah. In the end, 12 out of 20 participants mention no activity related to Akhirah in the pre-test but then start to mention it in the post-test. Meanwhile, 6 participants already mention it since the pre-test and 2 participants do not mention any activity related to Akhirah in both questionnaires.

Results of the daily activity question suggested that the game has the potential to influence participant's answer. However, this conclusion need to be approached with a grain of salt since it is difficult to ensure if the change is caused by participant's change of attitude or by participants' awareness of the true nature of the game. The former is the intended learning outcome, but the latter can be driven by social desirability bias. In addition, it is difficult to know if the effect is longitudinal.

This limitation is caused by the nature of the selected method that depends on player's subjectivity. To better capture changes in the player, a more objective or observable approach should be preferred. This can be achieved by observing player's behavior, utilizing psychophysiological measure, or employing game analytics. In addition, longitudinal study needs to be employed to understand the game's long-term effect. Furthermore, future research should employ a comparative study to better understand the game's effectiveness compared to other media.

4. Conclusion

This paper elaborate the development process of serious game to teach concept of Dunya and Akhirah to young Muslims. Although the evaluation confirmed that player's knowledge in Dua increases significantly after playing the game, the evaluation process cannot capture a definitive changes in player's attitude or behavior. Evaluating knowledge in Dua does not really represent attitude or behavior changes. In addition, while the daily activity question shows potential change, the cause cannot be solely attributed to change in player's attitude or behavior. Therefore, the game ability to achieve the learning outcome is still inconclusive.

With this limitation, future research should design the evaluation process more systematically to better understand its ability to change the player. In addition, the process should employ a more objective and observable measurement. Despite the limitation, this study is a first step toward teaching an abstract concept of Dunya and Akhirah to young Muslims with a novel approach utilizing serious game.

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