



The Utilization of Gamification of Hijaiyyah Letters as an Effort to Improve the Reading Ability of Elementary School Students

Sekhar Khairunnisa Mahardikha^(✉), Munawir Yusuf, and Akhmad Arif Musdad

Educational Technology, Sebelas Maret University, Surakarta, Indonesia

sekharkhairunn@student.uns.ac.id,

akhmadarifmusadad@staff.uns.ac.id

Abstract. As an effort to print a generation of Muslims who have an insight into the Qur'an, educating starting from the age of children so as to instill a high love of Al-Qur'an and try to learn it well. The Qur'an as the holy book of the Muslim converts acts as a source by of law in earth, the basis of from science and as a benchmark in shaping behavior children, through learning the basics of the Qur'an such as reading and write it down, children recognize the good values contained in it Al-Qur'an. In teaching reading the Qur'an it is necessary to have the right media, so that students easily understand the lesson and with this media students are expected to be able to improve learning outcomes. In teaching reading The Qur'an has many learning media that we can apply. Gamification is also defined as the process of improving services with affordability for a pleasant experience. The most important application of gamification elements during learning is the accuracy of the concept, clear and constructive goals for students, and can attract students' interest in learning during the learning process. The problem want be discussed in this studying for is how to improve the ability and by to read the Qur'an in elementary school for the students class through gamification-based android learning media. The purpose of this research is to knowing the ability to read the Qur'an the ability to read the Qur'an in elementary school students through output gamification-based android learning media.

Keywords: Reading the Qur'an · Learning Media · Gamification

1 Introduction

Reading the Qur'an emphasizes fluency in pronunciation, meaning that it must be read properly and correctly because mistakes in pronouncing the reading will have different meanings. As it is known that the Qur'an contains a very good and commendable meaning in it contains the teachings of Islam as an introduction to all aspects of life. So that if it is wrong to read and write it will be wrong in terms of interpreting and interpreting it. The most basic goal of learning to read and write the Qur'an for early childhood is to do refraction and instill a sense of love in children. If children are able to recognize letters, punctuation marks, are able to write and read the Qur'an, then it will be easier to teach

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other skills in learning the Qur'an such as memorizing and interpreting it. Reading the Qur'an properly and correctly is one of the obligations of Muslims. A good ability to read the Qur'an is in accordance with the Shari'a explained by the science of recitation, the skill of reciting each letter by giving the right letter [1]. The ability to read the Qur'an needs to be taught to children from an early age. This is to minimize the occurrence of stuttering in understanding the Qur'an as an adult. Before children are accustomed to understanding the knowledge of the Qur'an, the child must be able to read and write it, an initial understanding of the basic concepts of reading the Qur'an is needed in early childhood. *Hijaiyyah* letters are a great provision for studying the Qur'an, the holy book of Islam which was revealed in Arabic which consists of 29 letters, there are several shapes and sounds of letters that are almost the same [2]. In learning the Al-Quran should be done in children from an early age, so that it is easier to understand and memorize the hijaiyyah letters in their memory compared to adults [3]. Therefore in formal education, religion is one of the important subjects, especially in the hijaiyyah letter material that students must learn.

The development of science and technology increasingly encourages renewal efforts in the use of technological results in the learning process. Teachers are required to be able to use the tools that can be provided in schools, and it is possible that these tools are in accordance with the developments and demands of the times. Teachers can at least use cheap and efficient tools which, although simple and unpretentious, are a must in an effort to achieve the expected teaching goals. Besides being able to use the available tools, teachers are also required to be able to develop skills in making learning media that will be used if the media is not yet available.

One of the preparations that can be done by a teacher includes the media that will be used in the learning process. Media in learning is very useful as a distributor of messages or learning information. Media as a teaching aid is growing so rapidly in accordance with technological advances. The variety and types are quite large so that they can be utilized according to the needs of students, the material presented, the learning time and the school's financial condition. Each type of media has characteristics and capabilities in displaying messages and information. These characteristics and abilities need attention from educators or teachers, so that they can choose media according to their needs and learning objectives. If the media used contains educational messages, or teaching and the media is used in schools where it is possible students gain knowledge and skills then the media is called media learning. Media is usually used by a teacher in the learning process teaching and learning to represent what the teacher is less able to say through certain words or sentences and to concretize something with the presence of the media. Something concrete will usually be easier digested by students rather than abstract. Therefore, through the help of the media It is hoped that the teaching objectives that have been set can be achieved according to with what to expect. The need for media in the learning process is one of the efforts to overcome the limitations of a teacher's ability.

Gamification is a learning approach that uses elements found in games and video games to engage students in the learning process and maximize the sense of enjoyment and engagement in the learning process. Additionally, these media can be used to capture what interests students and motivates them to continue learning. Gamification

offers a practical solution by using game mechanics to build the engagement of specific groups [4]. Gamification is a concept that uses game-based mechanics, aesthetics, and game thinking to engage people, inspire action, facilitate learning, and solve problems [5]. Just like a game that players can undo and replay, make correctable mistakes so that players are not afraid to fail and bond with the game. Gamification works by making technology more interesting and encouraging users to engage in desired behaviors. According to Zichermann gamification is the process of thinking games and game mechanics to engage users and solve the problem [6]. The following are the steps for implementing gamification in learning that is Know the learning objectives, Determine the big idea, Create a game scenario, Design learning activities, Build groups, Apply game dynamics.

Along with various subjects in the field of computer science, gamification is also applied to any subject, such as courses in programming, cloud computing, data structures, basic computing, 3D computer graphics, computer networking, word processing and databases and artificial intelligence algorithms [7]. According to research conducted by Khaleel, Ashaari, Wook & Ismail, the decrease in students' motivation in learning programming can be overcome by applying game rules in learning [8]. Based on the identified game elements, his research shows that game rules such as badges, leaderboards and points can increase students' motivation by establishing a fun environment and consequently encourage students' interest in continuing to learn.

The following are the stairs to perform gamification in mastering along with 1) Break the concern remember into precise parts. Give a quiz on the cease of every segment and award college students with a digital badge in the event that they byskip the quiz, 2) Separate cloth into extraordinary and tiered stages. So, as their mastering progresses, college students earn badges and better stages are unlocked with a purpose to study new cloth, 3) Record the rating acquired in every segment. This is supposed for college kids to cognizance on enhancing their normal rating, 4) Give rewards including badges, certificates, achievements that may be published on college students' social media or inner websites, 5) Make the extent touchy up to now or time, in order that they have to test each day, each week or each month for brand spanking new challenges, 6) Create assignment organizations so college students can collaborate collectively to finish projects, 7) Introduce the idea of seek wherein college students can post their paintings that could reinforce mastering or cultural norms, 8) Give college students an incentive to proportion and touch upon their friends' paintings. This encourages a way of life of expertise sharing, 9) Surprise with more bonus rewards whilst college students byskip new challenges, 10) Create synthetic pressure through the usage of countdowns on numerous quizzes. This method will make students face challenges with time constraints, 11) Take the badge or reward if the student does not pass certain challenges, 12) Create branching scenarios in e-learning that are infinite or repeatable so that if the challenge is not overcome, students must find a solution, 13) Introduce characters that help and hinder students in their learning journey, 14) Provide students with facilities so that they can create or choose a character to 'play' while studying, 15) Display leaderboards showing the performance of all students across departments, geographies and specialties to encourage a spirit of competition and collaboration.

The gamification learning model has several advantages over other learning models, including 1) Learning becomes more fun, 2) Encourage students to complete their learning activities, 3) Helping students focus and understand the material being studied, 4) Provide opportunities for students to compete, explore and excel in class. Many fields of science have begun to apply gamification with the aim of increasing user interest, including 1) Education, for example at Khan Academy. Gamification in education is usually aimed at increasing the learning motivation of its users. Here we have to design the learning system to be more interesting and not boring. Suppose we make a learning material like an RPG game, where initially we are still level 1. As long as we read the material and do assignments, our character will develop and will level up, 2) Marketing. Gamification can also be used to increase the effectiveness of the promotion of a product. A clear example is Foursquare, which uses gamification to increase user interest in its products. Or we can also take a look at Stack Overflow, a platform for Question & Answer about all kinds of things. The problem with Stack Overflow is that it is difficult to get people to help answer questions, while there are definitely many who ask. So that gamification is tasked with inviting users to help other users who ask questions, 3) Health. In fact, many health applications use gamification, with the aim that the person is diligent in exercising or wants to maintain his nutritional intake. Examples include S health, Pedometer, LG Health, Runtastic Running & Fitness applications. S Health, Pedometer, LG Health, Runtastic Running & Fitness are applications that record how far and how often we run. So that users of S Health, Pedometer, LG Health, Runtastic Running & Fitness are more diligent in jogging, then gamification acts as a motivator. Some of the features of Pedometer, LG Health, Runtastic Running & Fitness are leaderboard, sharing, so we can also find out the trajectory we are taking and how many calories we burn.

There are many more implementations of gamification in other fields. The essence of gamification itself is how to make an activity fun. So, if we can apply gamification in every aspect of life, then our life will be more enjoyable. In the implementation process, the following questions need to be considered whether the gamification concept used is successful in building engagement for students 1) Can students as players understand the rules of the game? 2) Are the given objectives too difficult for students? 3) Are students really interested and involved in learning? the learning process with the given game concept 4) How can challenges and objectives improve student skills and abilities? 5) Can instructors/teachers monitor progress student development as evaluation material.

2 Methodology

This research is a development research using an R&D approach to develop new products in the form of the MARBELAIN MENGAJI game to learn the hijaiyyah letters. Target in this research is the development of an Islamic religious learning game about learning hijaiyyah letters.

The development research steps refer to the development research design according to Sukmadinata [9]. Which modifies the ADDIE theory (Analysis, Design, Development, Implementation, Evaluation). Analyze the current situation to understand the gaps you need to fill, what is needed in the analysis is Needs, Requirements, Tasks, Participants'

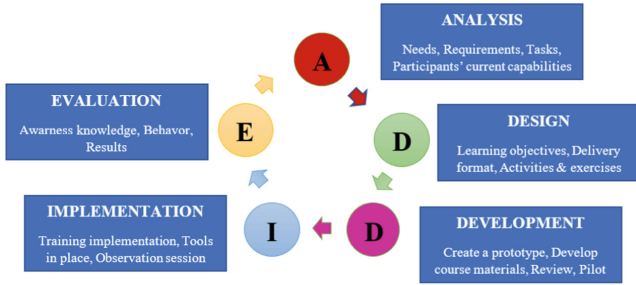


Fig. 1. Shows the research steps

current capabilities. Based on your analysis, make informed decisions to design the best possible learning experience, while in the design section that is Learning objectives, Delivery format, Activities & exercises. Bring your learning experience to life by building your end product while in the development section, among others Create a prototype, Develop course materials, Review, Pilot session. Distribute your learning end product to your audience, in the implementation section, among others Training implementation, Tools in place, Observation and Evaluation, namely evaluating whether the product can be used without revision or if there are still revisions in it. The evaluation section contains awareness knowledge, behavior, results (Fig. 1).

Before creating the play game, there is a technique used for collecting the data: questionnaires, to obtain for use information indications about the game’s content that lecturers wan. The following are the observation and questionnaire grids:

Table 1 contains a grid of questionnaires to reveal the needs of research products, includes the use of media that is applied in learning the hijaiyyah letter of opinion about the use play game of educational games, including the game MARBELAIN MENGAJI and the need for expected elements in the game for study learner.

After drafting the game, validation from the expert is required. There are several aspects jugged to get game quality. Table 2 shows the validation learner aspects noted by the experts. Each aspect has 4 rating scales ranging from 1 – 4: a score of 1 means the product has poor quality, 2 means enough, 3 means good and 4 means the game quality is very good. Validators must pay attention to eleven aspects of validation which include clarity of game descriptions, clarity game instructions, game display color composition, background music clarity, conformity background music with the game theme, the suitability affair of the wallpaper with the theme of the play game, the clarity of the image supporting the text of the hijaiyyah letter, the suitability of the picture with hijaiyyah letter product text, clarity of product description text hijaiyyah letter, Hijaiyyah letter material coverage in the game and the smooth execution of the game.

3 Findings and Discussions

There are three problematic proposed at the introduction that will be answered in this section. First part is finding which discusses the product design steps including preliminary study, needs analysis and product design. Second part is the discussion, showing the final product and the last discussion focused on the assessment of the game.

Table 1. Questionnaire grid

Indicators	Sub indicators	Number of item
Implementation of learning hijaiyah letters	Hijaiyah letter lessons The media used in learning hijaiyah letters	
Use of educational games in hijaiyah letters	The use of games in learning hijaiyah letters Opinions about education game	
Introduction to writing hijaiyah letters, guessing pictures of hijaiyah letters, hijaiyah letter puzzles	Opinions about writing hijaiyah letters, guessing hijaiyah letters pictures, hijaiyah letter puzzles	
Need for development hijaiyah letter game for learning hijaiyah letters		
Expected hijaiyah elements This game is writing, guessing pictures and hijaiyah letter puzzles	Need for game description Require for game instruction? Colours expected to the game display Type of music suitable as back sound for the game	

3.1 Needs for Creation of the Game

Regarding the results, we collected important answers that became the reasons and references in making games for learning Islamic religious education named MARBELAIN MENGAJI. First, we reveal that there are Islamic religious education lessons. So far, the media used for learning Islamic religious education include books and modules, power points presentations, videos. Games are never used as a learning tool for learning hijaiyah letters. Meanwhile, respondents agree that educational games are allowed students to understand the hijaiyah letter material in a fun way. This situation becomes right the reason for making games for learning Islamic religious education.

And lastly, in relation to the elements of the game, according to the results of the questionnaire, it was decided that MARBELAIN MENGAJI consists of images and text. The game comes with a description and game instructions and there will be 3 levels of levels so that students feel challenged at every level. The expected color is a bright color combination. In order for the game to be more lively, background music is needed to accompany it students in learning the material hijaiyah letters. An instrumental music selected to start the game. After getting the results of the need for Islamic religious education learning games, the next step is MARBELAIN HIJAYAH game development.

3.2 Development of MARBELAIN MENGAJI

In addition to the core of the game, MARBELAIN MENGAJI is also equipped with supporting elements: game info and game instructions to make it easier for users, both teachers and students to play it. Regarding Schmoll's opinion, there are four modalities

of game or game design, namely: understanding the mission and objectives set by the structure of the game, the rules of the game the game and the possibility of action depends on the level of the player, the knowledge that the player develops during its development regarding the universe, characters, skills, content and freedom the player who can decide whether he wants to continue, succeed or not [10]. Therefore, this game is designed following this modality. Application consists of front page, game page and the final page. Here's the explanation:

Home page. The game's home page features three clickable button icons: researcher information, end game and start the game. Users will get information about researcher information from game makers. **MARBELAIN MENGAJI** is an educational game to learn hijaiyah letters. This game aims to introduce hijaiyah letters to students. And this is how to play the game: the game is played individually by clicking on the start game icon, after which 3 levels will appear in this game.

On the home page of the app, we show: 1) Pictures of two men and women wearing Muslim clothes; 2) instrument song for game background; 3) There is a background image of the mosque to relate to the title of the game. Figure 2 shows the front page view.

Game page. This page shows the main parts that will be played. There are 3 levels in this game. Level 1 is Write Hijaiyah, level 2 is Guess the Picture. Abdurrozak & Jayadinata (2016) and Royantoro et al. (2018) argue that PBL learning has the following characteristics. Namely, first learning starts with problems, two problems are given according to the real world of students, three gives responsibility to students, four forms small groups; and five make students to demonstrate what they have learned in the form of performance [11, 12]. The advantages of the problem-based learning model are, first, students actively participate in learning so that the material is well absorbed, second, it can train students to work together, and third, students get information from various sources to solve a problem [13, 14] (Fig. 3).

At level 1 Writing Hijaiyah, one hijaiyah letter will appear and then students are asked to write letters starting from the number of the first dot to the number of the last dot. Figure 4 shows the level 1 page view.



Fig. 2. Home page's display



Fig. 3. Game page's display



Fig. 4. Shows the level 1 page view

At level 2 Guess the Picture, at this level there are 4 cards containing hijaiyah letters, the task of students is to match the 4 hijaiyah letter cards with the same hijaiyah letter cards. Figure 5 shows the level 2 page view.



Fig. 5. Shows the level 2 page view

At level 3 Hijaiyah Puzzle at this level there is a hijaiyah letter puzzle, the task of students is to arrange the puzzle pieces into one whole hijaiyah letter. Figure 6 shows the level 3 page view.

The game has been completed and is ready for the next step, for validation and testing.

Based on a taxonomy of modalities, Schmoll proposed four different possible modalities for using video game edutainment in the classroom. Closed learning simulations, edutainment software, gamification, educational games, and serious games. Under modality, Schmoll is more likely interested in serious games. Using serious games means taking existing video games that were originally designed solely for entertainment and setting learning goals for them. Teachers may suggest that students play video games because they help them achieve certain language goals [15].

MARBELAIN MENGANJI is classified as edutainment software and refers to properties. Edutainment software can be considered the predecessor of educational video games in the sense that it resides in digital media and presents educational content in fun sequences that are both challenging and rewarding. Additionally, the game is illustrated by a 1st grader who finds it difficult to memorize and memorize the shape of the Hijayya letter.



Fig. 6. Shows the level 3 page view

4 Conclusion

Both teachers and students are equally interested in the existence of Islamic religious education learning media with hijaiyyah letter material. This game is supported by 3 levels that are able to provide challenges to students. In game, there are elements of images and text as well as music and backgrounds with bright colors.

The final product is MARBELAIN MENGAJI, an Islamic religious education learning game made with Construct 3 that can be implemented on Android. That game built according to the needs of teachers and students. So that users can take advantage of teach and learn hijaiyyah letters in both formal and informal educational situations. Brugère states that the game refers primarily to an informal learning situation when it is part of the recreation world, its most ordinary use is beyond its transfer to a new one Settings. Anything outside of school or university is not informal, as there is non-formal. Indeed, formal learning logic can develop through the use of tools, website visits, and recommendations from teachers include the use of certain games [16].

After the creation process, the game was assessed by the lecturer and also tried by the first grade elementary school students. This game is ready to be used for teachers when teaching hijaiyyah letters.

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