

Developing Tartil Gamification to Improve The Skills of Recognizing Quranic Letters among First-Grade Children

Wan Nadzira Razi, Aidah Abdul Karim

Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Malaysia.

Email: wannadzeira@gmail.com, eda@ukm.edu.my

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Abstract

Although Quranic reading has been taught in primary national schools for Muslim children in Malaysia, previous studies suggested that the children lack the necessary skills to identify Quranic letters. Therefore, this study aims to develop and implement Tartil Gamification to increase skills of recognizing Al Quran letters among first grader children in a national school in Malaysia. The study employed design and development research design that comprised of four research phases of need analysis, design and development, implementation and evaluation. The study involved 15 first grader children and two teachers in a primary national school. The study collected data using document analysis, semi-structured interviews and achievement tests and analysed the data using descriptive statistics and thematic data analysis. The findings showed that Tartil Gamification helped children to recognize Al Quran letters. The study suggested that the gamification approach could be useful to facilitate children learning in Al Quran reading particularly at the early stage of recognizing Al Quran letters. It is imperative for the Ministry of Education and schools to develop and implement suitable training and support for helping Al Quran teachers in primary schools to develop and use gamification approaches in classroom learning.

Keywords: Al Quran Reading, Gamification, Primary Schools, Malaysia

Introduction

Quranic education plays a crucial role in shaping the character and personality of students at the early stages of schooling and will guide the development and formation of human character through the processes involved in it (Anwar, 2021). Such mission is aligned with the Education Development Plan 2013-2025 MOE (2012) that aims to cultivate morally upright citizens among students and to prepare them for leadership roles and making ethical decisions.

However recent studies suggest that skills of Al-Quran reading among students are still low. There are several problems discussed in previous studies related to the mastery of letter forms among primary school students. One of the main problems is that many students are not proficient in writing Arabic letters, including connecting letters and using hamzah letters, (Shapii et al., 2020). The issue of not being able to recognize these letters will be the cause

that leads to the problem of understanding Islamic Religious Education subjects that are taught in Jawi writing or Arabic subjects. In addition, most parents do not give emphasis and early exposure to Al Quran reading at home. Based on a case study conducted by Kamil and Yusoff (2022), students who did not receive early Al-Quran education at home contributed to the main factor of this problem. This will have a big impact especially on the students themselves in the care of their daily worship who need to read the Al-Quran correctly. According to Azhar et al (2023), taking care of letter meanings and letter properties is the most important foundation in Al-Quran education, but this issue was not emphasized.

The primary root of Quran reading difficulties is a lack of comprehension and proficiency with the text's religious verses. According to a study involving a total of 193 students and 16 teachers from five national primary schools in Setiu district, Terengganu, there are quite a few issues that can make it difficult to read the Quran, including a lack of reading instruction, ineffective teaching methods, and a poor comprehension of tajweed and tartil. For instance, research indicates that a lack of efficient teaching strategies, such the Iqra' technique, has left the majority of children in certain Malaysian primary schools unable to read the Al-Quran with fluency. The main findings of this study show that only 10.9% of students can read the Qur'an, while 89.1% cannot read the Qur'an, (Norsyida et al., 2014). This problem goes against the intended outcome of reciting the Qur'an under the j-QAF program which wants all first year students to master the skill of reading the Qur'an in the first six months.

There are several related studies in Quran reading that have been conducted by recent literature. The focus of these studies is that students will have easier access to al-Quran instruction as a result of the growing usage of digital technology. It is intended that as technology and internet platforms progress, students will be able to learn the Quranic recitation more effectively, clearly, and interactively. In order to give students more options for learning resources that best fit their learning styles, this hope also entails expanding interactive materials that are useful for teaching Quran. Furthermore, it is envisioned that using interactive materials to learn the Quran could help in getting beyond the challenges of physical access as a result of certain societal limitations, allowing for the efficient and effective study of the Quran from home (MSM Senin et al., 2021). According to the current focus, further study on the reading of the Qur'an is necessary. In order for students to understand the educational materials well, it is crucial to improve the quality of the outcome and to improve comprehension and proficiency in reading the Quran such as reading the passage aloud several times and explaining the tajwid norms. To make Quranic education more approachable and appealing for students, it is advised to include modern technology, such as YouTube, into the instruction more successfully. Efforts to improve the mastery of Qur'anic skills among pupils and school students by Islamic Education teachers in the country need further research to guarantee the quality of religious education with the increasing sophistication of technology and the existence of various gadgets. (Aminah et.al., 2021)

On the other hand, ICT application in Quranic education would further support the Education Development Plan 2013-2024 MOE (2012) that stated digital educational content for self-learning needs to be improved and made into a sharing of best practices. The Ministry also maximizes the use of ICT for distance learning to expand access to high quality teaching regardless of location or student skill level. This plan supports the Education Development Plan which aims to produce a digitally literate generation to strengthen the quality of Malaysian education. It is expected that the use of gamification in learning al quran reading would assist first-grade children to better recognize Quranic letters and ultimately improve

the ability to read al quran. Therefore the study aims to develop tartil gamification to increase skills of recognizing Quranic letters among first grader children. Specifically the study aims to:

1. To identify the needs for developing tartil gamification to increase first grader childrens' skills to recognize Quranic letter.
2. To apply constructivist learning theory, gamification approach, h5p platform, and tartil method in the design and development of the tartil gamification.
3. To implement tartil gamification.
4. To evaluate tartil gamification.

Literature Review

Skill in Recognizing Quranic Letters

According to Munawir & Hamzah (2017), the skill of recognizing quranic letter involves identifying and pronouncing letters accurately based on their forms in the Quran, which subsequently strengthens the mastery of *makhraj* (pronunciation points) of Arabic letters, i.e., the ability of students to pronounce Arabic letters correctly according to their articulation points in the mouth cavity. This method serves as the initial syllabus of the Tartil Method, employing a gradual and systematic approach suitable for developing the skills of all layers of students, including those with limited basic reading and letter recognition skills. The creation of interactive materials such as the Tartil Method Module aims to enhance understanding and sharpen Quranic reading skills at the early stages.

Table 1

Makhraj (Pronunciation Points) of Letter

MAKHRAJ	LETTERS
Nasal Cavity	ن م
Oral Cavity	ا و ي
Throat	ح خ ه ع غ ء
Tongue	د ث ص ض ط ك ن ت ل ي س ش ظ ز ر
Lips	ب م

The skill of recognizing Quranic letter through *makhraj* is the beginning of the Tartil Method syllabus with a slow and systematic method suitable for the development of the skills of all levels of students, including students who lack the basics of reading and recognizing letters. This clearly shows that there is a high need for the production of interactive materials to help improve the understanding and sharpen the skills of reading the Al-Quran at an early stage. There are several features and characteristics of tartil gamification that have been designed to develop these skills, thus making this gamification more practical, interesting and effective. The gamification system includes interactive modules that teach students how to recognize Quranic letters accurately. These modules may include exercises such as matching letters with the sound and quizzes. The system keeps track of their performance in identifying Quranic letters correctly and provides feedback on areas that need improvement. Students receive immediate feedback on their performance in recognizing Quranic letters. The system also identifies errors and provides guidance on how to correct them, helping students to improve their Tartil skills effectively.

Tartil Methods

Quranic Education (Tartil Method) is a new method pioneered by Hj. Gazali in the early 1993s. He was a Quranic Education lecturer at the Islamic School of Quran Development in West Sumatra Province, Indonesia. The Tartil Method 1 includes basic introduction materials for each Arabic alphabet, reading individual letters, reading letters in a sequence (Sukun), reading letters with shaddah (Musyaddad), and reading letters in pairs (Tanwin). Meanwhile, in Tartil Method 2, the students are taught Tajweed starting with learning the rules for elongation (Mad), reading letters with nasalization (Ghunnah), and without nasalization (Bilaghunnah), and how to recognize stopping signs (Waqaf). Additionally, students are taught how to resume reading the Quran after a stop (Ibtida') (Gazali, 2010).

Table 2

Tartil Method Curriculum Syllabus

TARTIL METHOD 1: RECOGNIZING AND READING THE QURAN	
Recognizing letters that are not in sequence	
Reading letters in a single sequence	
Pronouncing letters with diacritics	
Reading letters with shaddah (doubled consonants)	
Reading letters in pairs (Tanwin)	
Reciting Quranic verses	Guided recitation using murottal (audio recordings)

TARTIL METHOD 2: PRACTICAL TAJWEED SCIENCE

Long and short readings	
Nasalized and non-nasalized sounds	<ul style="list-style-type: none"> - Wajibul Ghunnah - Nun Sakinah and Tanwin Mim Sakinah

Stopping and starting reading	- Understanding
	- Forms
	- Reading techniques

Source: Tartil Method Book, 2003

Based on the tartil method in the study, the tartil gamification development will include method 1 only which focuses on a structured approach to learning quranic recitation, specifically targeting the mastery of basic letters, pronunciation rules, and advanced reading techniques among first grader children. The development will start by introducing learners to the basic letters of the Arabic alphabet, known as "hijaiyah" letters. Learners are taught to recognize each letter individually and understand its form and sound. Once learners are familiar with individual letters, they progress to reading single letters in isolation. This stage emphasizes accurate pronunciation and proper articulation of each letter's sound.

Constructivist Learning Theory

Vygotsky and Piaget are the founders of constructivism theory. This theory can be applied to the way of learning in the classroom. Constructivism theory uses reality as an element that can be converted into new experiences to determine results that achieve goals (Norlidah Alias, 2010). Therefore, Constructivism Theory is known as an active learning process because it involves a person's thinking that is built through activities for problem solving as a motivation that helps in their learning. This theory was chosen based on the goal of the study to provide independent experience to first grader children in honing the skills of recognizing these letters. Therefore, this theory is very suitable to be applied in the study of the production of gamified materials for users. This theoretical learning concept centers students in self-learning to build new knowledge and skills. In the context of this study, constructivism theory can be used to understand how letter recognition skills are actively carried out through interactive materials applied in gamification and also interaction with teachers and other friends to develop their knowledge through their experience in reading the Al-Quran.

The application of constructivism theory in improving letter recognition skills among students. In addition, the theory of constructivism can also be applied in an effort to improve teaching and training to improve the skill of recognizing hijaiyah letters. Applying a constructivist approach in the skill of recognizing letters can involve the active and interactive use of tartil methods such as games, songs, and the use of interesting graphics. This approach can help children develop their understanding and pronunciation skills through direct experience and interaction with their learning environment.

In conclusion, constructivism theory is a relevant approach that can be used in understanding and improving students' letter recognition skills. Having active interaction between children and their learning environment will help them develop better knowledge and understanding in the skills of recognizing letters and finally be able to read the Quran well.

Gamification Approach

The Definition of Gamification

Gamification is defined as "the use of game design elements in non-game contexts" (Deterding et al., 2011). It involves adding game elements to existing learning processes to make them more engaging and game-like. Gamification differs from game-based learning in that it focuses on augmenting or altering existing processes rather than creating fully fledged

games (Landers et al., 2018). The goal of gamification is to improve instructional content and directly influence learners' behaviors and attitudes, ultimately leading to positive learning outcomes. While there is ongoing debate about the effectiveness and transferability of gamification to non-game contexts, research suggests that gamification can have significant positive effects on cognitive, motivational, and behavioral learning outcomes. Additional studies are needed to further explore the mechanisms and components of successful gamification in learning contexts (Landers et al., 2018).

The Assumptions About Learning In Gamification Approach

The assumption about the gamification approach is that it has the potential to be an effective instructional method for interventions focusing on cognitive, motivational, and behavioral learning outcomes. Gamification is believed to directly influence behaviors and attitudes relevant to learning, with the aim of improving learning outcomes. The theory of gamified learning posits that gamification affects learning outcomes by enhancing activities that are relevant for learning, creating affordances for learners to actively engage in cognitive processes with the learning material. However, it is important to note that more theory-guided empirical research is needed to develop a comprehensive theoretical framework that outlines the precise mechanisms by which gamification impacts specific learning processes and outcomes. This research should explore different game design elements, modes of social interaction, and learning arrangements in order to better understand the factors contributing to successful gamification

The Advantages of Gamification

Gamification directly influences behaviors and attitudes relevant to learning by enhancing the attitudes and behaviors that are pertinent to the learning process. Gamification is designed to affect learning outcomes by improving behaviors and attitudes that are crucial for learning, such as active engagement in cognitive processes and fostering skills necessary for learning. The theory of gamified learning suggests that gamification targets specific behaviors and attitudes that influence learning outcomes either through moderation or mediation, depending on the nature of these behaviors and attitudes. Gamification creates instructional affordances for learners to actively engage in cognitive processes and interact with the learning material, which is a key component of effective and sustainable learning. By targeting these behaviors and attitudes, gamification aims to improve the quality of performance and skills by fostering motivation, engagement, and collaboration among learners. Inclusion of game fiction, as well as combining competition with collaboration, were identified as particularly effective strategies for influencing behaviors and attitudes relevant to learning. Overall, gamification directly influences behaviors and attitudes by creating a conducive environment that encourages active learning, engagement, and skill development in learners.

The Characteristics of Tartil Gamification

The characteristics of gamification that have been developed include game design elements, game fiction, and modes of social interaction. Game design elements play a crucial role in creating affordances for learners, different modes of social interactions, and diverse learning arrangements. Gamification often incorporates elements such as points, leaderboards, and challenges to enhance motivation and engagement in learning activities. Other characteristics, such as combining competition with collaboration, have been found to be effective in improving learners' quality of performance and skills when engaging in gamified

learning experiences. Overall, these developed characteristics of gamification aim to enhance the learning process through interactive and engaging elements that promote cognitive, motivational, and behavioral learning outcomes.

Some other characteristics of gamification that have been developed include the integration of game elements and design techniques into non-game contexts, the use of game-like strategies to make learning more interesting and engaging. The emphasis on achievement, success, progress, status, control, competition, and membership to motivate players, the provision of immediate feedback, and achievable goals, highlighting consequences of actions, fostering mastery orientation, promoting feelings of competence and injecting a degree of uncertainty and unpredictability into tasks to maintain engagement and interest .

H5p Learning Platform

H5P Definition

H5P stands for HTML 5 Package, is a plugin that allows creators to produce interactive content such as presentations, games, quizzes, and interactive videos. It is a open-source authoring tool that provides free and customizable resources (Juliana Magro, 2021). In education, H5P is used to create engaging and interactive activities for students to enhance their learning experience. Some of the activities available through H5P include fill in the blanks, drag and drop tasks, true/false questions, multiple-choice questions, quizzes, personality quizzes, and tasks with lists of statements.

H5P enables the development and implementation of learning content and interactive videos in the learning management system (LMS) and other e-Learning platforms. This medium aims to facilitate and improve the efficiency of creating and sharing all types of HTML5 formatted content. The use of H5P only requires a modern web browser and an LMS with free access. H5P too can be used to develop more interactive learning content. H5P is often used to create interactive videos, presentations, games, quizzes, and other types of learning materials. Its concept is open and free to use, H5P uses the HTML5 format making it accessible across various devices and web browsers.

One of H5P interactive materials is "Branching Scenario" as a teaching aid. H5P allows users to create interactive content easily and quickly without having to have deep programming knowledge. Singleton and Charlton (2019) stated that various types of activities can be developed through H5P such as case study scenarios, interactive technical demonstrations, interactive 3D images, as well as quiz questions in various different formats such as fill in the blanks, drag and drop based on images and text (drag and drop based on image and text), interactive video and branching scenario assignments. H5P content can be easily shared through several learning management systems such as Canvas, Moodle and Blackboard.

According to Chen et al (2021), Branching Scenario is started by giving a scenario to the user, followed by various answer options that will lead to different storylines. The answer options include various types of content such as Course Presentation, Interactive Video and Image Hotspots. Branching Scenario can be applied in various contexts, from corporate training to education. It can be adapted to meet specific learning objectives. With H5P, Branching Scenario construction is easy and accessible and built by anyone, regardless of their technical skills. In addition, Branching Scenario also enables flexible content types that allow authors to deliver a variety of rich interactive content and choices to students. Students will determine the content they will see (H5P, 2023). 'Branching scenarios' allow students to benefit from

their mistakes. Students can see how a wrong decision can completely change the outcome and understand how the choices you make lead to consequences and/or rewards. 'Branching scenarios' offer students the opportunity to access their knowledge base as in a lesson review and use the information they have learned (Pappas, 2015). For example, if a student answers incorrectly to an embedded question halfway through an online video, they will be prompted to return to the part of the video that explains a particular concept. The adaptability provided by H5P also creates a more personalized learning experience for students, which Ellis and Goodyear (2013) called in their constructivist learning approach.

A recent meta-analysis by Ploetzner (2022) found that enhanced interactive videos, such as those that included questions and tasks, were more effective for retention and comprehension than non-interactive videos. The interactive nature of H5P activities aims to engage students in what Ellis and Goodyear (2013) describe as, "learning through engagement in metacognitive skills of reflection and self-regulation". Sinnayah et al. (2021) investigated the use of H5P presentations in physiology education and found that students who tried interactive activities (fill-in-the-blank and multiple-choice questions) consistently engaged with them, and 90% of students engaged in the activities. showing that their level of content knowledge has increased significantly.

The use of H5P in education has been found to have significant benefits, such as increasing students' interest and attention, reinforcing concepts, and aiding in memory recall of materials. It provides an exciting opportunity for students to learn in an interactive and engaging manner. The use of H5P activities has been shown to improve students' motivation and ultimately contribute to their skills development and achievement. In online and virtual language teaching, H5P offers a creative and effective way to engage students and make the learning process more dynamic. H5P provides interactive and engaging content such as presentations, interactive videos, games, and quizzes, making the learning process more interesting for students. H5P activities reinforce concepts effectively. Furthermore, the adaptability and ease of application of H5P in Learning Management Systems make it a convenient tool for teachers to use in virtual teaching. Overall, the use of H5P in teaching can offer a dynamic and interactive way for students to learn, making the learning process more engaging and effective.

Methodology

DDR Definition

The study employs design and development research (DDR) study. According to Richey & Klien (2007), Design and Development studies (DDR) is a systematic approach that focuses on planning, developing, and evaluating learning programs with the aim of improving the process. This DDR study provides space for the researcher to understand and apply knowledge related to a specific context and serves as a solution to problems that arise. The goal of this research approach is to obtain knowledge that contributes to the learning process through the form of a constructed model. Thus, DDR studies can be defined as an approach that produces an ideal product to help improve understanding and provide problem solving in the learning process.

Collins et al (2004) emphasized that the study of design and development is a research study used in education. This study aims to test and improve design and learning methods based on existing principles and theories. The research done will produce a product to be applied into the learning process to see how well the design works. Improvements will continue to be

made based on the experience gained. In addition, this design study also aims to develop and improve existing theories based on findings obtained from data analysis. The success of this design and development will bring changes to learning through the collection of relevant data, documentation of design changes and evaluation of learning outcomes in the implementation phase.

Wang and Hannafin (2005) use the term Design-based research (DBR). This study is a systematic and flexible research methodology aimed at improving the quality of the education sector through continuous analysis, design, development, and implementation. This approach uses the learning and teaching process to discover, explore, establish, and disseminate their findings. However, there are some external influences that should be taken seriously in implementing interventions systematically. This is important to advance concepts or theories in education. Research participants need to collaborate with each other to produce social interaction in the design research process.

DDR Study Phase

In the study of Amiruddin et al (2021) stated that the study phase refers to the levels that need to be implemented in sequence in the DDR study process. The analysis phase is the earliest stage in this study. In this stage, problems need to be identified from various sources to determine the needs of the study including previous studies. In addition, aspects of the atmosphere, profile, and experience relevant to the study also need to be analyzed.

Then followed by the design phase which is the second stage in the study. At this stage, learning strategies and designs are planned based on the results of the analysis from the previous stage. Certain design models such as the ASSURE design model and the Fuzzy Delphi Method are indicators for carrying out this level of process.

Next, the development phase contains the improvement process in terms of value, effectiveness, and practicality of the product before being taken to the implementation and evaluation phase. This phase also involves the commitment of product developers with wider cooperation from users and product evaluation experts.

After that, the implementation and evaluation phase is the last stage in this study. At this stage, the product that has been planned will be implemented in a real situation by the appropriate user. The product will be evaluated for its usability through a user evaluation process.

Although there are two opinions about the number of phases that need to be implemented in a study where the design and development phases are combined into three phases only as discussed in the study of Ridhuan and Nurulrabihah (2020), this approach is basically formed through four phases, (Richey & Klein, 2007).

The use of DDR is actually highly encouraged because it is able to help researchers to design a product flexibly in an organized structure. In this method as well, the researcher can apply various research instruments and methods according to the phases contained in it. Among the products that can be produced in the application of the DDR approach are as follows: 1. Model, 2. Module, 3. Questionnaire form for an evaluation, 4. Framework, 5. Guidelines, 6. Strategic plan and 7. Mission (Yaakob, 2017)

DDR Advantages

The first advantage of this study by using the DDR (Design and Development Research) approach is that it can help the study provide a structured research journey in planning and

developing products or learning components of the Al-Quran subject. This approach includes analysis, planning, development, implementation, and evaluation that helps improve the skills of recognizing the letters of the Quran and ensures that each stage of the process is well concluded. Second, DDR studies focus on user experience. By using DDR, the learning products produced are tested and evaluated for students to ensure the quality and facilities provided to them are in line with the main purpose of this study. This will increase the interaction and level of student satisfaction with the learning product. Third, although there are many steps to follow, the development process of the DDR study is very flexible and can be changed according to the needs and objectives of the study. Finally, the DDR approach brings constructivist learning theory to be formulated and applied in the production of gamification as a medium that creates an effective and efficient learning experience for students.

In conclusion, the DDR study is a systematic production effort, making it a structured study with the main focus of this study being on the development of Tartil Method gamification materials using the H5P website. According to the Tartil Method curriculum, the introduction to the letter forms in the Al-Quran is placed at the beginning of the section because it plays the most important role in this module. Therefore, the design process will focus on the production of gamification materials related to the skill of recognizing the letters in the Al-Quran.

The sample for this study consisted of 2 Quran subject teachers with more than 10 years of experience and 15 first-grade students. The study collected data using interviews that were conducted with two subject teachers using semi-structured questions to understand their views and experiences with regard to developing tartil gamification to improve the skills of recognizing Quranic letters. The reading proficiency of the students has also been examined.

Result

This section will discuss the findings of the study. There will be a discussion through four phases; the need analysis, design and development, implementation and evaluation of tartil gamification.

The Need Analysis Of Tartil Gamification

General Characteristics of Students

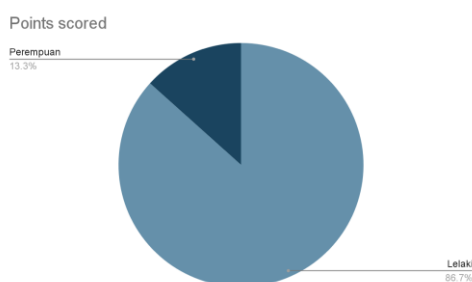


Figure 1 Gender

A total of 15 Year 1 students were selected as respondents to the study, namely 13 male students and 2 female students who were involved in this study from the remedial class as shown in the following diagram:

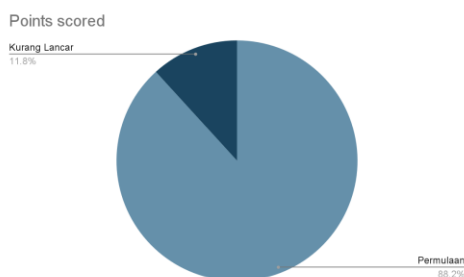


Figure 2 Reading Level

Based on this figure, which shows that the respondents are students in remedial classes, only two levels are involved. Basically, there are 4 levels of reading that are determined to measure students' skills in reciting the Quran. The first level is Fasih, which is a student who can read the Quran fluently and with tajweed and complete all the right letters that need to be mentioned. The second level is the Fluent level where students who are at this level are students who can read fluently, give all the right letters well but there are tajwid errors in reading. Next is the Less Fluent stage, which is the student who reads with stuttering reading without giving the right letters because they do not know the letters and also make tajwid mistakes. Finally, the beginner level is a student who needs the help of others to read because this student cannot read the letters properly and still does not know the letters completely. Pupils at this beginning level also do not know the correct tajweed and read very slowly.

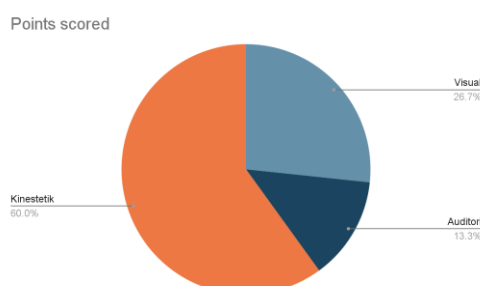


Figure 3 Learning Style

Three learning styles of these students were identified through learning which are Visual, Auditory and Kinesthetic. If seen here, students with a Kinesthetic learning style exceed half of the respondents followed by a Visual style and then Auditory. For students who use Visual, they easily remember something they read or wrote. They also prefer the use of charts, graphs and pictures. They have a stronger memory and imagination. Auditory students choose to talk to themselves. Hearing their voice helps them to remember information. Usually, Auditory students have the advantage of communicating. Kinesthetic learners prefer to move and be active. They cannot just sit and listen for long periods of time and eventually, they will lose their concentration.

Subject Teacher Interview

The gamification requirements analysis phase obtained data from interviews with 2 subject teachers who are directly involved in teaching and learning.

This interview is semi-structured and 4 open questions were given to respondents to obtain information. The findings are shown below:

Table 1

The Interview With Quran Teachers

	Theme	Quotes
1	The necessity of game-based educational materials	<i>"In my opinion, this subject really needs learning materials in the form of games to attract the interest of students who still cannot read this."</i>
2	Appropriate Activities in the Development of Gamification	<i>"A suitable activity that should be included in gamification should involve reading the correct letters."</i>
3	Recommended Learning strategies	<i>"Self-learning and problem solving I think is the strategy that needs to be used because this will be student-centered."</i>
4	Recommended Form Of Assessment	<i>"At the end of learning, an interactive and creative evaluation needs to be done because we want to know the student's level of understanding through this gamification."</i>

In conclusion, the current generation is more inclined towards technological and interactive learning materials. Respondents agreed that technology-based learning is more dynamic and easily attracts students' interest. Gamification supports the school's objective in empowering the use of technology in the classroom. Both respondents stated that gamification will be able to attract students' interest in learning. The construction of the gamification of the tartil method requires interesting activities that emphasize reading with accurate pronunciation. Appropriate learning strategy according to the subject teacher's point of view to be applied in the gamification of this tartil method involves a student-centered approach. They think that students who have not yet mastered the letter forms in the Al-Quran need another approach different from the usual way.

The Design And Development Of Tartil Gamification

The Skills Of Recognizing Quranic Letters In Tartil Method

The first step in learning the Qur'an with the Tartil technique is to set a steady pace and pronounce each letter individually. Learning the several forms of the same letter is essential knowledge for first grader students. This facilitates the student's ability to recognise sounds more quickly and develops their ability to recite the sentence coherently. Thus, reading tartil is a crucial first step in reading the Qur'an well and appreciatively. Based on figure 4, the concept of learning shapes is used to train students to read correctly. This concept trains students' speaking skills through the information received in this module. Therefore, practical approach strategies have been used in learning to produce student-centered learning and teaching aids. This experience also improves students' self-learning skills in accordance with the objectives of the Tartil method gamification module. With the development of technology, the integration of diverse elements has created dynamic learning.

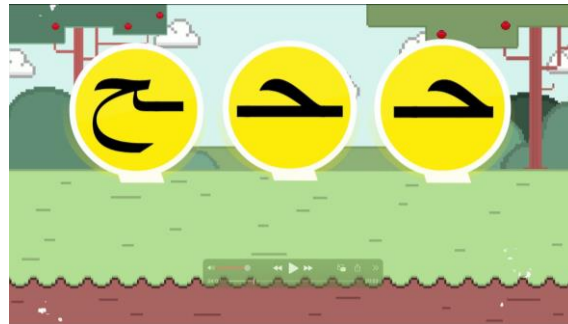


Figure 4 Various Shape Of Hijaiyah Letters

The Application of Constructivism Theory

Constructivism theory uses the reality that students go through as an element that can be converted into new experiences to determine the results that achieve the goal (Alias, 2010). Therefore, Constructivism theory is a learning approach that sees reality as the result of construction and individual experience. This theory believes that learning involves thinking, experience, and developing one's own understanding by the individual. In the context of this research, the theory of Constructivism was chosen as the theoretical basis because its focus on self-learning is in line with the objectives and learning outcomes of the Tartil method gamification module. Nevertheless, teachers also play a role in directing learning, especially at the beginning of the learning process and also when students face problems in going through the activities carried out. This theory also leads to active learning, based on individual findings that indirectly motivate students in reading Al Quran.

Figure 2 shows the application of constructivism features in the construction of this gamification module where learning is done actively through interesting and creative graphics. The powtoon application is an animation construction application that is used because this application has interesting elements and easily available materials to complete the storyboard provided through flexible frames. A character is also created as a guide who launches a narrative path to convey information to students through this gamification module.

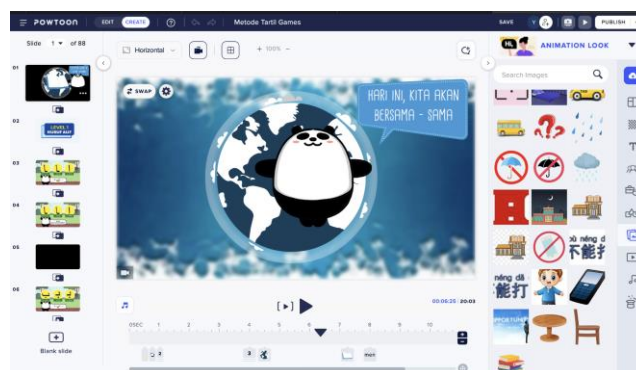


Figure 5 Powtoon website storyboard

The Application of Gamification Approach

To improve learning and engagement, gamification aspects have been used in a variety of ways. First, Levels and Progress Tracking. Based on the detailed nature and variety of their interactions, students could track their progress in interacting and moving through stages. Students could be encouraged to have fun with various features and functionalities by this.

The next section is Interactive tasks, which introduces skill-related interactive tasks or quizzes that could improve student engagement and enjoyment. Students could test their knowledge and develop their talents by playing alongside each other or by themselves. Through the analysis of student interactions and preferences, customised instructional connections can also be developed to accommodate different learning styles and interests. To help students advance steadily in their learning, recommendations for activities or information could be made based on their individual needs. Thus, the use of gamification in this research and development could contribute to the creation of a more dynamic and captivating learning environment, encouraging students to communicate more frequently while enhancing their language proficiency.



Figure 6 Instructional Connection

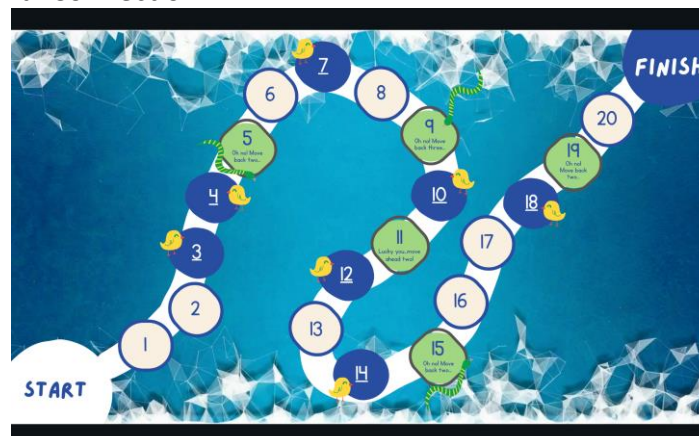


Figure 7 Level Tracking



Figure 8 Interactive Task

The Application Of H5P Learning Platform

Gamification Evaluation Structure is through a quiz included at the end of learning. This quiz is generated through the medium of H5P which is an abbreviation for HTML5 Package where this platform is open which allows the development and implementation of learning content and interactive videos to be built easily. A method called Branching Scenario is used to build materials that are in line with the objectives and learning outcomes of gamification. A total of four levels arranged in this quiz are divided according to letter order so that students are not confused. This method makes the student in a looping state if the answer is not correct. The diagram below shows how this platform works:

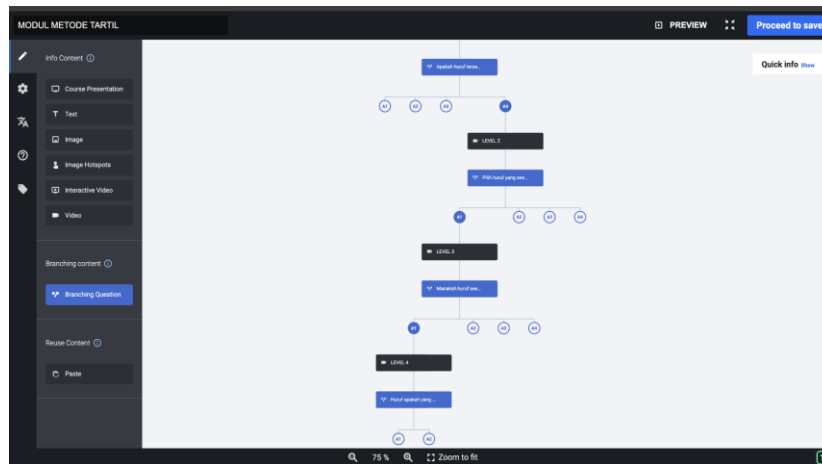


Figure 9 Branching Scenario Interface

The Implementation of Tartil Gamification

The Al Quran Committee's daily lesson plan is used in the implementation of the gamification module of this tartil method in the classroom. The table below is the details of the RPH carried out:

Table 2

Daily Lesson Plan of Al Quran Committee Sri Seremban School

AL QURAN COMMITTEE DAILY TEACHING PLAN SRI SEREMBAN SCHOOL			
SUBJECT	AL QURAN	CLASS	1 Maliki
DATE/ DAY	December 6, 2023 / Wednesday	TIME	8.00 am - 9.00 am
THEME	Al Quran culture		
TITLE	Know the shape of the letters in the Al Quran and their sounds.		
SKILLS	Listen and read hijaiyah letters		
STANDARD CONTENTS	1.1		
STANDARD LEARNING	1.1.2		
OBJECTIVE LEARNING (explain to students the objective to be achieved)	<p>At the end of the learning session, students will be able to:</p> <ol style="list-style-type: none"> 1. Identify the forms of each letter used in reading the Quran. 2. Reading letters with the correct makhraj. 3. Differentiate the sound of letters that seem to have the same place of the makhraj. 		
TEACHING ACTIVITIES & LEARNING (PdP) * The best activities of Banvak are listening	<ol style="list-style-type: none"> 1. Students start the class by singing hijaiyah letters. 2. Students access the tartil method gamification module using the school computer. 3. Pupils listen to an explanation of the different forms of each hijaiyah letter. 4. Students answer assessment questions in the module. 5. The teacher evaluates the student's work. 		
AUXILIARY MATERIALS LEARN (BBB)	<ul style="list-style-type: none"> ● Tartil Method Gamification Module ● Computer ● Projector 		
MULTIPLE INTELLIGENCE	<ul style="list-style-type: none"> ● Interpersonal ● Intrapersonal ● Verbal Linguistics ● Kinesthetic 		
ELEMENTS ACROSS CURRICULUM (EMK)	<ul style="list-style-type: none"> ● Creativity and Innovation ● Leadership ● Culture of knowledge and Al Quran 		
SKILLS THINKING/ CENTURY 21st	<ul style="list-style-type: none"> ● Compare the difference ● Categorize ● Persecuting Ideas ● Communication ● Summarizing ● Evaluate 		

<p>ASSESSMENT TEACHING & LEARNING</p>	<ul style="list-style-type: none"> ● Work result ● Quiz
<p>REFLECTION</p>	<ol style="list-style-type: none"> 1. Students can follow the teacher's instructions well. 2. Easy and smooth gamification access using fast internet.

Evaluation of The Tartil Gamification

The points collection system is one of the techniques used in the gamification approach in education. In the context of this study, the point system is used as an evaluation of quizzes that have been implemented. A total of 13 students managed to get full marks while the other 5 got 90, 80 and 70 marks. The results of the evaluation results in the gamification, their ability to recognize the letters of the Quran are as follows:

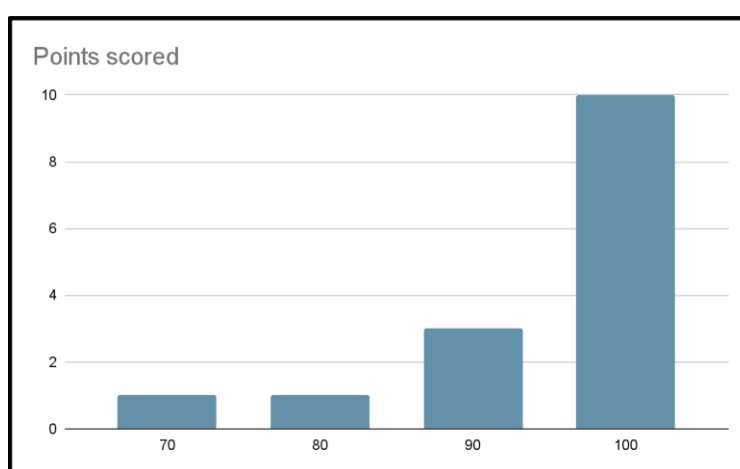


Figure 10 Level of student achievement through the use of gamification

The findings related to the need for gamification to enhance the skill of recognizing Quranic letters among first-grade students through the analysis of student characteristics data and interviews with 2 subject teachers showed that a total of 15 first-grade students were selected as study respondents, comprising 13 male students and 2 female students. Additionally, four levels of Quranic reading proficiency were identified: being able to read the Quran fluently and with proper tajwid, being able to read fluently, less fluent level where students read with hesitation, and students who require assistance from others to read. Interview findings related to technology-enhanced and interactive learning materials indicated that gamification makes the interactive learning becomes student-centered and helps to achieve school objectives in empowering the use of technology. Regarding suitable activities, the use of gamification in the Tartil Method requires engaging activities that emphasize proper pronunciation. Furthermore, suitable learning strategies were found to make learning more student-centered through the use of interactive videos and other methods

Motivation and Gamification

Motivation plays a crucial role in students’ learning process, especially in reading comprehension such as learning Quranic letters. Research has shown that motivation can significantly impact students’ achievement. Therefore, gamification is one of the alternatives that can be used by educators to motivate students by allowing them to approach learning

tasks more optimistically and by providing them the chance to practise and make mistakes, (García-López et al., 2023). In the context of reading comprehension, students' motivation can be enhanced through various methods, including the use of multimedia tools like H5P. The use of H5P activities in teaching Quran has been found to increase students' interest, attention, and overall motivation towards learning the language. When students are more engaged and motivated, they are more likely to achieve better results in reading Quran mastery. However, it is important to note that individual students may respond differently to motivational strategies, with some students feeling more motivated by certain activities than others.

Overall, the use of H5P in teaching Quranic letters among first-grade children offers a unique and interactive way for students to engage with the material, potentially enhancing both their motivation and achievement]. By providing engaging and interactive content, teachers can create a more dynamic learning environment that caters to students' diverse learning needs and preferences. This ultimately contributes to a more effective and enjoyable learning experience for students in the reading Quran classroom.

Contribution of The Tartil Gamification

By using gamification activities, students' interest was increased, attention was gained, concepts were reinforced, and material was easier to remember. Additionally, the adaptability and ease of application of gamification among the students made it a valuable resource for engaging online learning and assessing students' understanding of course materials. This research highlights the importance of gamified learning in education and its effects on cognitive, motivational, and behavioral learning outcomes. One significant contribution discussed is the potential of competition and collaboration in enhancing intrinsic motivation (Burguillo, 2010). The study distinguishes between destructive and constructive competition, emphasizing how constructive competition can foster feelings of relatedness and enhance intrinsic motivation. Furthermore, collaboration and aspects of collaboration in competition can also have beneficial effects on intrinsic motivation, particularly when compared to solitary engagement in an activity.

There are also discussions of the limitations of existing research on gamified learning, emphasizing the need for greater methodological rigor in primary studies to ensure more reliable results. It suggests that future research should focus on using agreed-upon measurement instruments with good psychometric properties to enhance the comparability of studies and increase methodological rigor. Additionally, it calls for investigations into the interaction between learner characteristics and gamification to better understand how learners perceive and engage with gamified learning environments.

In conclusion, this research emphasizes the importance of using multimedia tools like H5P in teaching Quran to make the learning more valuable and emphasizes the importance of considering factors such as competition, collaboration, measurement instruments, and learner characteristics in gamified learning research to enhance learning outcomes and effectiveness.

Discussion

The research findings obtained will be discussed. The discussion of the study covers the four phases arranged according to the DDR study, namely needs analysis, development design, implementation and evaluation. Going through the four phases, the findings show that the development of the tartil method gamification model is important for the Al Quran subject

because it upgrades digital education through the practice of gamification. Students are also more likely to choose gamified learning to improve their skills. Several previous studies have also been carried out and show the potential of gamification in helping students master learning concepts better and increase their motivation. This leads to an important emphasis on developing a gamification model in the subject of al-Quran for other syllabuses also in line with technological advances when this.

This study can also provide a significant contribution in the application of constructivism theory and practical learning through gamification. Constructivism theory is a learning approach that emphasizes the active role of students in developing their own knowledge and understanding through experiences and interactions around them. Findings also show that learning using gamification in education is closely related to the principles of constructivism. When using a gamification approach, students can be actively involved in developing their own understanding through an interactive and engaging game experience. In the context of this study, gamification can provide an opportunity for students to strengthen their Al Quran reading skills by increasing their knowledge of recognizing the letter forms in the Al Quran. Through gamification as well, the process of mastering something provides an alternative for the student's problem solving process. The right application of gamification can help students develop a new perspective on learning and realize their potential.

Next, one of the components used to build educational gamification is "structuring the experience". This shows that a practical approach can be applied in learning experiences that use game elements. In gamification, learning experiences are designed to involve students to interact directly with learning materials through a hands-on approach. Through gamification, students will learn to see failure as an opportunity to continue to succeed. Practical practicality in the gamification module will open opportunities for students to learn from every mistake made and continue to strive to achieve success.

The discussion of the study encompasses the four phases structured according to DDR research, namely needs analysis, design, implementation, and evaluation. Exploring these four phases, the findings indicate that the development of the Tartil Method gamification model is essential for Quranic subjects as it elevates digital education through gamification practices. Students also show a greater inclination towards gamified learning to enhance their skills. Additionally, this study contributes to the application of constructivist theory and practical learning through gamification, emphasizing the active role of students in developing their knowledge and understanding through experience and interaction. In the context of this study, gamification provides opportunities for students to reinforce their Quranic reading skills by enhancing their knowledge of letter forms in the Quran. Moreover, the development of digital teaching aids is now crucial to create advanced innovations in the era of the fourth industrial revolution to address student progress issues and save time.

Conclusion

This study emphasizes the existence of great potential for the development of gamification applications in the education sector of the country today, especially religious subjects. The construction of digital teaching aids is now very necessary to create advanced innovations in the era of industrial revolution 4.0. Most of the digital materials used in learning contain the constructivist theory mentioned in the literature review. Through the findings it has also been explained that this theory is very suitable to be used in the formation of gamification as an

activity in the classroom in parallel with today's learning. The evaluation explained that gamification can make a significant contribution in overcoming student progress problems and also save time. However, the implementation of gamification in the education sector is still limited and there is no specific method for its development due to several hindering factors such as time constraints and teacher workload. The construction of materials like this consumes a very long time.

Therefore, several parties play an important role to take appropriate action to provide opportunities for education that is integrated with this digital material, especially for the reading of Al Quran for small children. The recommended parties to contribute to this field of Al Quran knowledge apart from teachers are parents, administrators of educational institutions and the Malaysian Ministry of Education.

Looking from the point of view of this study, the use of the tartil method gamification module can improve students' understanding and performance in recognizing the letter forms in the Al Quran. Traditional learning methods are less effective for this century because the generation gap is becoming more apparent based on their lifestyles surrounded by technological advancements. Therefore, modern methods such as gamification are needed to increase the motivation and level of student involvement in the classroom. This method also stimulates students' interest and motivation in their learning. In conclusion, gamification can be an effective tool to improve the level of skill in recognizing letter shapes in the Al Quran. Therefore, all parties involved should use innovative and creative approaches to prepare them for the digital and complex world.

Nevertheless, a follow-up study needs to be done to evaluate the latest development of gamification in the education sector. Although students' interest and tendency to use gamification is high, and can help improve students' skills through dynamic learning, many teachers still face challenges in implementing it, especially for those who lack experience and guidance in using technology.

Therefore, this study suggests that the concept of gamification be advanced so that its construction is not too complicated and provide training to guide teachers in the production of quality digital teaching aids. Production resources and mediums also need to be increased as a form of support for teachers to improve their understanding and ability in implementing gamification in teaching practice.

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