

GAMIFICATION OF THE TUROTS BOOK AS AN INTERACTIVE INTERACTIVE LEARNING ACCESS BASED ON ANIMATION 2D AND 3D

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ABSTRACT

The traditional approach in learning Islamic Religious Education (PAI) is often considered monotonous by the younger generation, thus creating challenges in conveying Islamic teachings in an interesting way. This research aims to develop gamification based on 2D and 3D animation as an interactive learning method to increase the accessibility and attractiveness of the Book of Turots. Using the ADDIE model Research and Development (R&D) method, this research includes the stages of analysis, design, development, implementation, and evaluation. The results show that gamification elements, such as points, rankings, missions, and interactive narratives, are able to increase students' motivation to learn and understand the Book of Turots. This technology provides a more visual and flexible learning experience, allowing students to learn anytime and anywhere. Despite the constraints on educator resources and adaptation, gamification offers a great opportunity to revolutionize PAI learning, making it more relevant to the needs of the digital generation. This approach is expected to preserve Islamic intellectual values while forming a generation of Muslims who are intelligent and characterful.

Keywords: Gamification, 2D And 3D Animation, Turots Book, PAI Learning, Education Innovation

BACKGROUND

Islamic Education (PAI) learning plays an important role in shaping the character and spiritual values of students (Adhi, 2022). However, traditional teaching methods are often considered monotonous and less appealing to younger generations who are used to the digital world (Aalde, 2024; Ansari, 2021; Biwer et al., 2020). Therefore, innovation in the PAI learning space is becoming increasingly important to answer this challenge (Akrim et al., 2022). The right innovation not only focuses on attracting students' attention, but also in making it easier to understand and apply islamic education teachings in daily life (Abubakari & Kalinaki, 2024).

Interactive and contextual learning methods are the key to bringing PAI materials to life in the classroom (Gebre, 2020; Kahfi et al., 2022; Ningsih, 2022). With this innovative approach, students not only play the role of passive listeners, but also actively explore religious materials (Galeote, 2023; Kozanitis, 2023). This is very important so that Islamic education can be more than just the norm, but also inspiring, relevant, and meaningful in the context of modern life (Abdullah, 2022; Abubakari & Kalinaki, 2024).

Meanwhile, the Book of Turots, which is one of the rich Islamic scientific heritages of scholars, is often considered a valuable source of knowledge (Haidar, 2022; Noh, 2020). However, the main challenge faced is its accessibility for the younger generation. Because it uses complex language and contexts,

this book requires an approach that is easier for today's learners to understand (Saini, 2025). Otherwise, the potential of the Book of Turots will be increasingly forgotten in the midst of the current dominance of modern digital information (Sulistyo & Ismarti, 2021).

Today's younger generation tends to have difficulty understanding the substance of the Book of Turots, which is rich in classical terminology and delivered in a formal method (Najib & Hidayat.HS, 2024). This has caused a widening gap between the younger generation and Islamic intellectual treasures. In fact, these books hold a lot of wisdom, values, and knowledge that are very relevant if presented with the right approach. Therefore, innovation is needed so that the Book of Turots is not only considered part of history, but also as a source of inspiration for relevant and interesting learning.

Through a technology-based learning approach, the Book of Turots can be revived in a more interactive format. The use of two-dimensional (2D) and three-dimensional (3D) animation, for example, can bridge the gap of understanding between the younger generation and the complexity of the content of the Book of Turots. With its compelling visuals and easy-to-understand narrative, the Book of Turots is accessible in a more enjoyable way without putting aside its intellectual essence.

Technology plays an important role in supporting the development of interactive learning methods in Islamic Education (PAI). 2D and 3D animations can visualize abstract concepts in Islamic teachings so that they are easier for students to understand (Akrim et al., 2022; Ansyah, 2022; Huda, 2024). This technology not only helps students to understand the content, but it also provides an engaging, engaging, and motivating learning experience for students to delve deeper into PAI material (Azizah et al., 2025; Hidayatin et al., 2024; Susanti & Maulaya, 2023).

The integration of technology in Islamic Education (PAI) learning has the potential to increase the flexibility of the learning process (Susanti et al., 2023). Through the use of technology-based animation, students have the opportunity to learn anytime and anywhere by utilizing digital devices (Akrim et al., 2022; Ansyah, 2022; Huda, 2024). This provides space for learners to explore the material independently, according to their respective learning pace. Thus, PAI learning is no longer limited to the classroom, but extends to various aspects of students' lives (Fauzi & Hosna, 2022; Masturin, 2022).

Furthermore, the use of two-dimensional (2D) and three-dimensional (3D) animations in interactive PAI learning creates a great opportunity to revolutionize Islamic learning methods. This technology can change students' perception of religious materials into something relevant, fun, and useful. Thus, the religious values taught in PAI can be embedded more strongly in the hearts and minds of students, thus giving birth to a generation that is not only intellectually intelligent, but also has an Islamic character.

The use of technology in education continues to grow along with the increasing interest of the digital native generation in digital media, including games (Adar, 2023; Galeote, 2023). One of the innovations that is developing is the incorporation of gamification concepts in learning applications to teach Islamic knowledge. For example, the Faham Fiqh al-Aqsa application designed using the ADDIE model presents historical material about al-Aqsa Mosque and Islamic Jerusalem in the form of interactive puzzle games and videos. With an easy-to-understand interface in three languages, the app aims to make learning Islamic history more engaging and accessible to children, while maintaining a high educational element. The research that developed this app shows that the use of games in learning not only increases student engagement, but also helps to understand the material in a fun way (Bidin & Al-Qodsi, 2019).

In addition, gamification has been applied in the field of Islamic Education (PAI), as shown by research that uses the Research and Development (R&D) approach to develop game applications based on learning aqidah akhlak. The applications resulting from this research are recognized by experts as a valid and effective learning medium. The students reported that the use of the game application made

the learning process more interesting, easier to understand, and increased learning motivation. This shows that education-based game applications can be a very effective alternative to attract students' interest and also improve learning outcomes in the context of Islamic education (Auliya et al., 2024).

On the other hand, technology is also used to transform learning that was previously considered boring into more interesting. Research that develops tajweed learning methods through *gamification* and *augmented reality* shows that both approaches can create a more engaging and meaningful learning experience. By utilizing this technology, students can learn tajweed in a fun way, thereby reducing boredom and increasing student engagement with material that is often considered difficult. This approach is also expected to be able to attract the interest of children who are part of the digital native generation, so that it can be easier to understand and apply it to the science of tajweed in daily life (Mohamed Noor et al., 2018).

Another study revealed that digital games can be used as a persuasive tool in teaching Islamic values to Muslim children (Ibrahim et al., 2019). The use of game-based apps, such as Quizizz, in higher education learning has also been shown to have a positive impact. A study suggests that this app can increase student engagement, motivation, and memory of the material being taught (Sheikh Abdul Aziz & Hamzah, 2019). In addition, Quranic based gamification apps for children, developed through other research, also assist children in learning the Qur'an in a fun and interactive way. This shows that *gamification* is not only relevant for formal education but also for informal learning aimed at strengthening Islamic values (Aftab & Jamil, 2022) .

The purpose and urgency of this study is to explore the application of *gamification* as a learning method in the teaching of Islamic Education (PAI), focusing on the materials contained in the Book of Turots. This research aims to explore *the integration of gamification* with the content of the Book of Turots, with the hope of creating a more engaging, interactive, and relevant learning experience to the needs of the generation known as digital natives today. Through the incorporation of game elements, this study seeks to overcome challenges in conventional learning that are often considered less interesting and difficult to understand, especially for the material in the Book of Turots written in the language and style of classical writing.

The urgency of this research lies in the importance of modernizing the teaching approach of Islamic Education (PAI) to be more in line with the interests and learning abilities of students today. By utilizing technology and game elements, *gamification* is expected to change the way students view and understand the Islamic religious material taught in the Book of Turots. In addition, this research aims to introduce innovative approaches in Islamic education that not only increase student engagement, but also have the potential to improve learning outcomes and a deeper understanding of the Islamic teachings contained in the Book of Turots.

RESEARCH METHOD

This research applies the Research and Development (R&D) method with the ADDIE model approach, which consists of five main stages: Analysis, Design, Development, Implementation, and Evaluation (Taherdoost, 2024). Each stage is designed to ensure that the resulting product, i.e. interactive Islamic Education (PAI) learning based on 2D and 3D animation with *gamification* of the Book of Turots, can meet the needs of users in an effective and efficient way. In the Analysis stage, the learning needs were identified, the analysis of student characteristics, and the obstacles faced in understanding the Book of Turots were carried out. The goal of this stage is to gain a clear understanding of the problems to be solved through the developed learning products.

The Design stage involves planning a learning framework, *gamification* flow, and storyboard creation for 2D and 3D animation. This stage is followed by the Development stage, which includes the creation of technology-based learning content using animation software and the development of *gamification elements*. Furthermore, the Implementation stage is carried out to test the product in the field, both on a small and large scale, to gather input from users. Finally, at the Evaluation stage, an assessment of the effectiveness of the product is carried out, both formatively during the process and summatively after the implementation is completed. The results of this evaluation are used to make final revisions before the product is ready for widespread use, through small and large scales to get feedback from users. Finally, at the Evaluation stage, an assessment of the effectiveness of the product is carried out, both formatively during the process and summatively after the implementation is completed. The results of this evaluation are used to make final revisions before the product is ready for widespread use.

The following is a flowchart of the ADDIE model in this study:



Each stage is interconnected to ensure the final product can optimally integrate *gamification* and animation elements with PAI's learning needs.

RESEARCH FINDINGS AND DISCUSSION

Characteristic Kitab Turots

The Turots refer to the classic works in the Islamic scientific tradition written by previous scholars. These works serve as the main source of reference in the study of Islamic religion, both in the fields of fiqh, tafsir, hadith, and other sciences. The books have very distinctive characteristics, which distinguish them from contemporary works (Bashori et al., 2022).

1. Classical Language: The Turots are often written in classical Arabic which is sometimes difficult for today's younger generation, who may be more familiar with the colloquial language or simpler language.
2. Classical Methodology: In these books, the explanation of a religious concept is carried out with an approach that is often deductive and normative, requiring a sufficient background of knowledge to understand it.
3. Depth of Knowledge: The Book of Turots contains very deep and comprehensive thoughts on various aspects of Islamic teachings. For example, in jurisprudence, these books discuss in detail the laws that apply in the daily lives of Muslims, such as worship, muamalah, and marriage.

4. **Classification of Knowledge:** These books are generally grouped into several disciplines, such as (Priyono et al., 2024): Kitab Fiqh: Books that discuss the laws of Islam; The Book of Tafsir: Explanation or interpretation of the Qur'an; Book of Hadith: A collection of teachings or sayings of the Prophet Muhammad PBUH; Kitab Aqidah: Discusses the main teachings in Islam, such as faith in God, angels, the books of Allah, the apostles, and the last days; The Book of Islamic History: A book that reviews the history of Islamic civilization, the lives of the Prophet's companions, and important events in Islamic history; The Book of Sufism: A book that teaches about the purification of the soul and Islamic spirituality.

The Importance of the Book of Turots in Islamic Education

The Turots book serves as the main source in Islamic Education (PAI), especially in the context of in-depth and traditional science-based learning. Although the writing of the Book of Turots was often done centuries ago, its content remains relevant and has always been the main source of reference for scholars, scholars, and students studying Islam.

Some of the reasons why the Book of Turots is important in PAI are:

1. **Deep Understanding of Islam:** These books provide a deeper understanding of the teachings of Islam through detailed explanations and based on authentic sources, such as the Qur'an and Hadith.
2. **Application of Knowledge:** The Book of Turots not only talks about religious theory, but also how Islamic principles are applied in everyday life.
3. **Maintaining the Tradition of Knowledge:** The Book of Turots is part of the Islamic intellectual tradition that must be studied and understood so that the knowledge remains sustainable and not forgotten. However, the biggest challenge is how to convey and teach this Book of Turots to the younger generation who may find it difficult to understand it.

Gamification Elements in Learning the Book of Turots

To create an interactive and enjoyable learning experience, various gamification elements can be applied in the learning process of the Book of Turots. These elements aim to increase student involvement and can serve as motivation in learning Islamic Education (PAI) materials. Here are the *elements of gamification* that can be applied:

1. **Points and Rankings:** Each student earns points based on achievement in tasks related to the Book of Turots, such as answering questions or completing quizzes. These points will be calculated to rank students in the leaderboard, which motivates students to keep trying and competing healthily.
2. **Missions and Challenges:** Develop missions and challenges related to the Book of Turots material. For example, students are given the task of studying and explaining the interpretation of a verse or hadith in the book. Each challenge completed can award additional points and unlock new learning materials.
3. **Badges:** Giving awards in the form of badges or badges to students who have successfully achieved certain goals. For example, students who successfully memorize certain hadith can get the "Hadith Memorizer" badge, or those who complete the tajweed chapter well can get the "Tajweed Expert" badge.
4. **Levels and Keys:** Students can move up to the next level after completing challenges in previous levels. Each level you reach will unlock a new chapter or material in the Book of Turots. This concept provides a sense of accomplishment and motivates students to learn more.

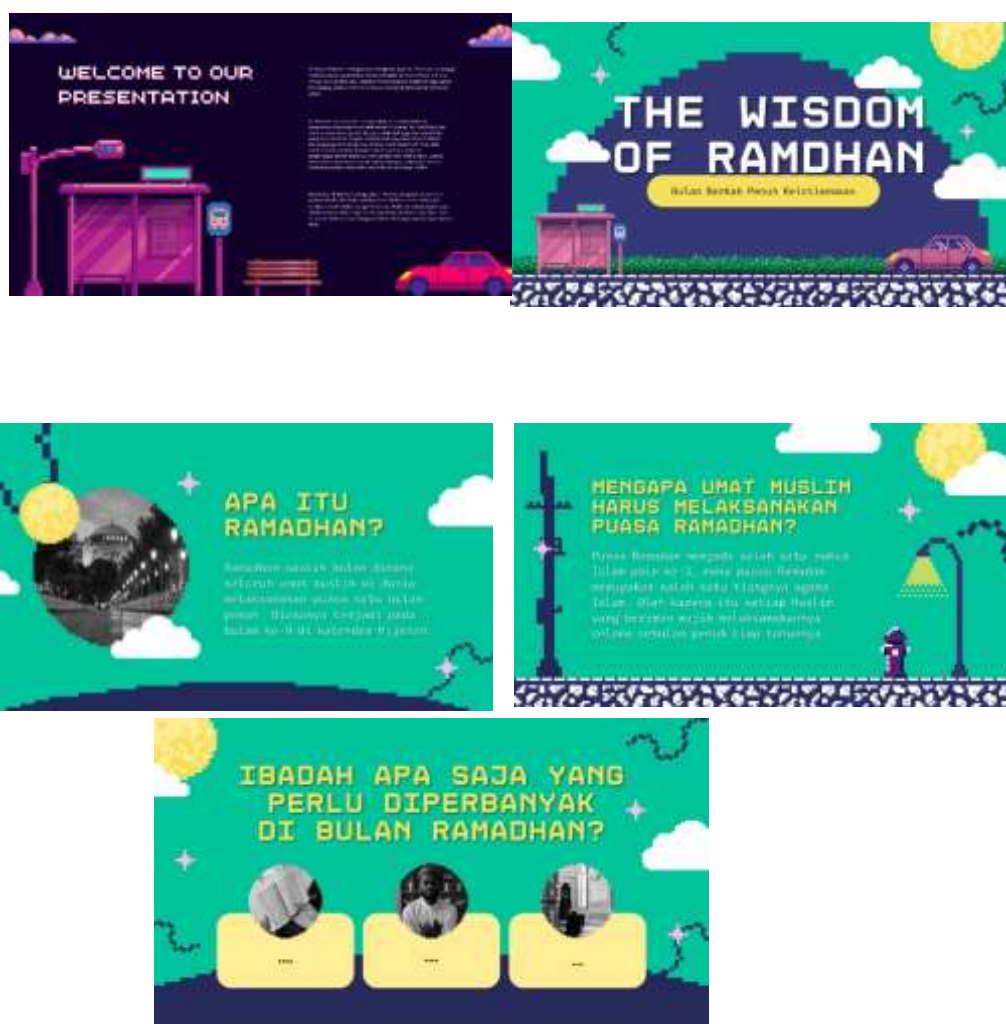
5. Story and Narrative: Story elements are used in learning by presenting Islamic historical figures. Students can play the role of students of great scholars and follow the journey of these figures in facing challenges relevant to the material of the Book of Turots.
6. Collaboration and Discussion: Forums are provided for students to brainstorm and work together on completing assignments. This activity aims to deepen understanding of the turots book as well as develop social skills. With the application.
7. If these *gamification* elements , learning the Book of Turots in PAI will become more engaging, fun, and interactive, which in turn can increase students' motivation and understanding of the subject matter. Some of the designs used in the selected book are as follows:



In this design, *gamification* elements will be integrated to bring to life the materials contained in the book. For example, for Ta'lim Muta'allim, *gamification* will help teach teachers the ethics of learning, how to deepen knowledge, and the importance of adab, which are wrapped in challenge- and mission-based games, such as "learning missions" that must be completed in a way that is in accordance with the manners taught in the book. Students can play the role of "learners" who follow the learning path, earning points or levels based on achievement in understanding the material ethics and learning manners, with various interaction options based on the principles of the book.

As for Taqrib, *gamification* can be applied to introduce the concept of fiqh gradually through game elements that encourage students to answer questions or solve scenarios related to daily fiqh laws. Basic understanding of prayer, zakat, fasting, hajj, and menstrual problems for women is tested in this activity. Points or badges are given based on success in answering questions and completing simulations according to fiqh material in Taqrib, so that learning not only covers the law, but also its application in daily life.





This game is designed to help students understand two important topics in Islamic fiqh, namely *qiyamul lail* (night prayer) and *the month of Ramadan*, which are part of the material in the *Book of Turots*. In this game, players will be guided to learn and practice both teachings in a fun and interactive way.

Before starting the game, the basic concepts of *qiyamul lail* and the month of Ramadan will be explained first. Furthermore, each player can choose the character to use to start the learning journey. This character will interact with various challenges and scenarios that depict the life of a Muslim who is undergoing *qiyamul lail* and the month of Ramadan. The backstory involves everyday situations that allow players to understand the challenges of worshipping in the month of Ramadan and the importance of night prayers.

The game comes with interactive features designed to deepen understanding of *qiyamul lail* and the month of Ramadan. Each time a mission is completed or a certain level is reached, the player will receive additional information, such as explanations of related hadiths *qiyamul lail*, the virtues of night prayers, as well as the best practices in the month of Ramadan.

Challenges and Opportunities for the Use of Gamitification in PAI Learning

The use of *gamification* based on 2D and 3D technology in learning the Book of Turots has great potential to revive the scientific heritage of Islam, especially among the younger generation who are more familiar with the digital world. With this approach, the materials in the Book of Turots, which are often presented in complex language and context, can be delivered in a more engaging and understandable way. *Gamification* not only makes learning Arabic more interactive, but also encourages active student involvement in exploring the material. This approach is able to increase interest as well as understanding of the content of the Book of Turots and the Arabic language as a whole (Rezi et al., 2024).

The application of *gamification* through 2D and 3D animation can enhance the learning experience, making it more visual and fun. With an attractive appearance, the concepts in the Book of Turots that are usually abstract and theoretical can be conveyed more clearly and easily understood by students. In addition, technology-based learning provides more flexible access. Students can access the material anytime and anywhere, without space and time restrictions, so that the learning process becomes more independent and can be adjusted at the pace of each individual. It also answers the challenges of modern education that demands flexibility in the way of learning (Rasiman, 2025).

Gamification has a significant role in encouraging the development of creativity during the learning process. Through the use of animations and game elements, students not only become passive recipients of the material, but also actively participate in creating and contributing to the learning material. This approach is able to hone students' critical thinking skills and creativity, which are invaluable in Arabic education and Islamic studies. In addition, *gamification* offers rewards that can motivate students to learn and compete healthily in understanding the Book of Turots (Widodo & Musyarofah, n.d.).

One of the main challenges in the application of 2D and 3D-based gamification for learning the Book of Turots is the limited human and technological resources. The animation development process and *gamification* applications require high technical skills, such as mastery of graphic design, programming, and in-depth knowledge of Islamic content. Therefore, the team involved must have adequate multidisciplinary expertise, both in religious science and technology. In addition, the procurement of adequate hardware and software often requires a considerable budget, an obstacle for some Islamic educational institutions that have limited funds (Restalia & Khasanah, 2024).

Another obstacle faced is the acceptance of this technology by educators and students. Some educators, especially those who are used to conventional learning methods, may find it difficult to adapt to the use of technology in teaching. Therefore, intensive training and mentoring are needed for teachers to utilize *gamification* in the learning process. On the other hand, some students may also not be familiar with technology-based learning and are more comfortable with more hands-on traditional methods (Syukri et al., 2025).

The next challenge is to maintain harmony between the Islamic content in the Book of Turots and the way it is conveyed through digital media. The Turots hold invaluable values and knowledge, but often, their presentation in animated or *gamified form* can risk diminishing the intellectual depth and moral message contained in the original text. Therefore, it is important to find the right balance between the elements of entertainment and the substance of the material, so that the essence of Islamic teachings in the Book of Turots is maintained and does not fade in the process of digitization (Haleem et al., 2022).

In addition, accessibility is a significant challenge. Although digital technology offers flexible learning, not all Islamic educational regions or institutions have adequate infrastructure. Many educational institutions in remote areas still have difficulty accessing the technology and digital tools needed to implement *gamification*. This situation has the potential to create a gap in the distribution of quality education, especially in terms of the use of technology for learning the Book of Turots.

CONCLUSION

The integration of technology in Islamic Education (PAI) learning, especially through *gamification approaches* based on 2D and 3D animations, opens up great opportunities to revitalize teaching methods that have been considered monotonous. The Turots, as a rich intellectual heritage of Islam, can be revived with an innovative approach that makes it relevant and easy to understand for the digital native generation. Gamification elements such as points, rankings, levels, and interactive narratives have been proven to increase student engagement, motivation, and understanding of PAI materials, which are often complex.

However, the implementation of *gamification* also faces significant challenges, such as limited technology resources, the readiness of educators, and accessibility gaps in several regions. To overcome these challenges, multidisciplinary cooperation involving technologists, educators, and Islamic experts is needed to ensure that the development of learning media remains relevant and in accordance with the essence of Islamic teachings.

The results of this study show that the use of *gamification* and animation-based technology is not only able to increase students' interest in learning, but also provide a more meaningful and contextual learning experience. With this approach, the materials in the Book of Turots are not only studied as theories, but also applied in everyday life in an inspirational way.

Thus, the development of innovative technology-based learning methods is an urgent need. This not only aims to answer the challenges of modern education, but also to preserve and transform the noble values contained in the Book of Turots so that they continue to be relevant in shaping a generation of Muslims who are intelligent, Islamic, and globally competitive.

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