



## THE STRATEGY OF PAI TEACHERS IN IMPLEMENTING GAMIFICATION BASED LEARNING METHODS AT SD IBNU KATSIR BEAU

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### Abstract

This research aims to analyze the strategies of Islamic Religious Education (PAI) teachers in implementing gamification-based learning methods at Ibnu Katsir Elementary School in Berau. Gamification has emerged as an innovative solution to address the often-perceived theoretical and unengaging nature of Islamic Religious Education (PAI) for elementary school students. This descriptive qualitative research involved PAI teachers and students as participants, with data collected thru observation, in-depth interviews, and documentation. Data analysis included data condensation, data presentation, and drawing conclusions. The research results indicate that PAI teachers developed a systematic planning strategy including content analysis, selection of gamification elements (blessed points, levels, badges, leaderboards, quests, instant feedback), learning scenario design, and preparation of manual media. Implementation is carried out thru tiered memorization games, worship simulations, noble character missions, and story adventures. The challenges faced include technological limitations, complex classroom management, balancing fun and learning, and differing student abilities, which are overcome thru creative adaptation and differentiated gamification. Gamification has proven effective in increasing students' motivation, cognitive understanding, affective character, and psychomotor skills. This research contributes to the development of a contextual gamification model for Islamic Religious Education (PAI) learning in schools with limited resources.

**Keywords:** Gamification; Islamic Religious Education; Learning Strategies

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## INTRODUCTION

## مقدمة

Islamic Religious Education (PAI) plays a fundamental role in shaping the character and spirituality of students at the elementary school level. PAI learning not only focuses on transferring knowledge about Islamic teachings but also on internalizing religious values that can be practiced in daily life. However, the biggest challenge facing PAI teachers today is how to present learning materials, which are often considered theoretical and abstract, in a more engaging and understandable way for elementary school students who are in the concrete operational cognitive development stage (Pujianti & Nugraha, 2025)

Technological advancements and the changing characteristics of digital natives demand innovation in teaching methods. Elementary school students today are growing up in an environment filled with interactive technology and digital games that provide a fun and engaging learning experience. This condition creates a gap between conventional teaching methods, which are still dominant in schools, and students' learning preferences, which are more visual, interactive, and reward-oriented (Hidayat & Wardat, 2023). PAI learning that still uses lecture

and memorization methods tends to make students feel bored and less motivated to actively participate in the learning process.

Gamification emerged as an innovative solution to address these issues. Gamification is the use of game elements in a non game context to increase learners' motivation, engagement, and participation in learning. This concept is not simply about turning learning into a game, but rather integrating game mechanics such as points, levels, badges, leaderboards, quests, and instant feedback into the learning design to create a more engaging and meaningful learning experience (Li et al., 2024). Research shows that gamification can increase students' intrinsic motivation, active engagement in learning, and lead to more optimal learning outcomes.

Several previous studies have explored the implementation of gamification in learning. Sappaile (2024) research shows that gamification can increase elementary school students' learning motivation by 78% and improve their cognitive learning outcomes. The study by Mohd Zainudin & Huda (2024) found that Gamification based learning is effective in increasing students' active participation in mathematics learning in elementary school. Meanwhile, research by Putra et al. (2024) revealed that gamification can improve engagement and collaboration among students in science learning.

However, these studies still have some limitations. First, most gamification research focuses on exact subjects like mathematics and science, while the implementation of gamification in Islamic Religious Education (PAI) learning is still very limited (Azizah & Widjajanti, 2023). Second, previous research has emphasized the effectiveness of gamification on cognitive learning outcomes, but has not sufficiently explored teachers' strategies in designing and implementing gamification, especially in the context of values and character education, which is the core of PAI. Third, existing gamification research in PAI is generally conducted in urban schools with adequate technological facilities, while implementation in schools with limited resources has not been widely explored (Thongchalermsri & Jarunthawatchai, 2020).

SD Ibnu Katsir Berau is a private Islamic elementary school located in Berau Regency, East Kalimantan. This school faces the typical challenges of schools in areas with limited access to technology and digital learning resources. Nevertheless, PAI teachers at Ibnu Katsir Elementary School in Berau have taken the initiative to implement Gamification based learning methods by utilizing available resources. This phenomenon is interesting to study because it shows that gamification doesn't always have to be based on advanced technology, but can be adapted according to the conditions and context of the school (Shrestha et al., 2023).

The novelty of this research lies in several aspects. First, this study specifically explores the strategies of PAI teachers in designing and implementing gamification for learning that focuses not only on cognitive aspects, but also on affective and psychomotor aspects, which are specific characteristics of PAI learning. Second, this study examines the implementation of gamification in the context of schools with limited resources, thus providing a more inclusive and applicable perspective for schools in the regions. Third, this research not only examines gamification from the technical implementation aspect but also explores how teachers overcome challenges and make adaptations to ensure gamification remains effective in achieving PAI learning objectives.

This research has significant theoretical and practical importance. Theoretically, this research will enrich the literature on gamification in Islamic Religious Education (PAI) learning and contribute to the development of game-based learning theories for values and character education. Practically, this research will provide concrete guidance for PAI teachers and other schools in designing and implementing gamification according to available conditions and

resources, thus improving the quality of PAI learning more broadly.

Based on the background above, this research aims to: (1) analyze the Gamification based learning planning strategies implemented by PAI teachers at SD Ibnu Katsir Berau; (2) describe the implementation of Gamification based learning methods in PAI lessons at SD Ibnu Katsir Berau; (3) identify the challenges and solutions faced by PAI teachers in implementing Gamification based learning methods; and (4) evaluate the effectiveness of Gamification based learning methods on student motivation and learning outcomes in PAI subjects at SD Ibnu Katsir Berau.

## METHOD

## منهج

This research uses a qualitative approach with a descriptive design to deeply explore and describe the strategies of PAI teachers in implementing gamification based learning methods at SD Ibnu Katsir Berau, East Kalimantan. The qualitative approach was chosen because this study aims to understand complex phenomena in a natural context, namely how teachers design, implement, and overcome the challenges of gamification in PAI learning.

### *Participant Characteristics*

The research participants consisted of PAI teachers from SD Ibnu Katsir Berau who had implemented gamification for at least one semester. Inclusion criteria for teachers include: having experience in implementing gamification methods in Islamic Religious Education (PAI) learning, and being willing to participate in the research. Additional information includes students from the 4th grade who were purposively selected based on their level of participation in gamified learning (high, medium, low).

### *Research Design*

This study uses a case study design with an analysis of gamified learning strategies. Data was analyzed using the interactive analysis model of Miles et al. (2014), which includes three stages. The data condensation stage involves organizing raw data from interview transcripts, observation field notes, and documents, then identifying important themes related to gamification planning strategies, implementation, challenges, solutions, and effectiveness. The data presentation stage involves arranging the reduced data in the form of matrices, charts, and descriptive narratives to facilitate drawing conclusions. The conclusion drawing and verification stage involves identifying patterns, relationships between categories, and the meaning of the research findings, then verifying the conclusions thru data source triangulation and member checking with participants.

## RESULT

## نتائج

### **Gamification Based Learning Planning Strategy**

PAI teachers at SD Ibnu Katsir Berau are implementing gamification based learning planning thru several systematic stages. The first stage is the analysis of learning materials and objectives, where the teacher identifies PAI materials suitable for gamification, such as memorizing short surahs, practicing ablution and prayer, exemplary morals, and inspiring stories in Islam. The teacher considers the characteristics of materials that are easier to transform into game form, especially materials that require repetition, practice, or a gradual understanding of concepts.

The second step is selecting the appropriate gamification elements. The PAI teacher at Ibnu Katsir Elementary School in Berau adapted gamification elements based on available resources and the characteristics of elementary school students. The selected elements include: a point system called "Poin Berkah" (Blessed Points), a level system adjusted to the level of memorization or understanding of the material, star-shaped achievement badges with bronze, silver, and gold levels, a leaderboard in the form of a class achievement board, learning quests or missions packaged as daily and weekly challenges, and instant feedback thru motivational stickers or stamps.

The third stage is designing the learning scenario. The teacher designed a learning flow that coherently integrates gamification elements with the learning objectives of Islamic Religious Education (PAI). The learning scenario was structured as follows: an opening that builds motivation and explains today's quest, a main activity containing learning activities with competition or collaboration, and a closing that involves reflection, awarding rewards, and updating the leaderboard.

The fourth stage is the preparation of learning media and tools. The teacher prepares gamified learning media using simple materials such as picture cards for quiz games, achievement boards made of plywood or cardboard, reward stickers and stamps, and quest worksheets. Technological limitations were overcome with creativity in creating manual media that remained engaging and functional.

### **Implementation of Gamification based learning Methods in Islamic Religious Education**

The implementation of gamification in Islamic Religious Education learning at SD Ibnu Katsir Berau was carried out in various forms of learning activities tailored to the material and learning objectives.

For memorizing the Quran, the teacher implements the game "Graded Memorization". Students who successfully memorize short surahs fluently and correctly will receive blessing points. Each surah has a different point value based on its difficulty level. Students are motivated to level up from "Beginner" to "Little Hafiz." The memorization process is packaged in the form of weekly challenges where students compete to complete memorization targets. The leaderboard is displayed on the class achievement board to provide healthy competitive motivation.

For practical worship materials like ablution and prayer, the teacher implements the "Worship Simulation" game. Students are divided into groups and take turns practicing ablution or prayer movements. Groups that perform the practice in the correct order and manner receive points. Role-playing elements are integrated where students take on the role of "Worship Teacher" who teaches their friends and earns bonus points if they can explain correctly. Feedback is given directly by teachers and friends for improvement.

For the subject of morals and Islamic values, the teacher implemented the game "Noble Morals Mission." Students received daily mission cards containing challenges to practice commendable morals such as helping friends, being honest, or maintaining cleanliness. Students who successfully completed the missions and could prove it (through stories, peer witnesses, or teacher observation) received points and badges. This system encourages students not only to understand moral concepts cognitively but also to apply them in their daily lives.

For the material on stories in Islam, the teacher implemented the game "Adventures of the Prophet's Companions." The story material was presented in an interactive storytelling

format where students answered questions or solved puzzles related to the stories to "continue the adventure." Students were divided into teams and competed to complete quests consisting of comprehension questions, analyzing the moral values of the story, and applying the lessons from the story to their own lives.

The reward and punishment system in gamification is managed with the principles of positive education and motivation. Rewards are given in the form of blessed points that can be exchanged for privileges such as becoming a prayer leader, receiving Islamic storybooks, or earning achievement certificates. Badges and achievement pins are displayed on the class leaderboard to provide recognition. Punishment is not applied in the form of negative consequences, but as "additional missions" or opportunities to learn more, thus maintaining student motivation.

### **Challenges and Solutions in Gamification Implementation**

The implementation of gamification in PAI learning at SD Ibnu Katsir Berau faces several challenges. The first challenge is the limited availability of technological resources. The school does not have LCD projector or computer facilities in every classroom to support digital-based gamification. The solution implemented by the teacher is to adapt gamification in a manual form using concrete learning media such as cards, game boards, and other physical props. Teachers also develop creativity in designing visually appealing learning media, even tho they are made with simple materials.

The second challenge is more complex classroom management. Gamification based learning tends to make the classroom more dynamic and lively, which requires good classroom management skills to keep learning under control and achieve learning objectives. The solution is for teachers to establish clear rules of engagement at the beginning of the lesson, use a discipline point system to maintain positive behavior, and train students to be more independent and responsible in participating in learning activities.

The third challenge is ensuring a balance between fun and learning. There is a risk that students will focus too much on competition and rewards, forgetting the essence of PAI learning itself. The solution is for teachers to always reflect at the end of lessons to remind students of the learning objectives and values learned, to balance competition with collaboration thru games that require teamwork, and to emphasize that rewards are not the main goal but rather appreciation for effort and learning.

The fourth challenge is the difference in students' abilities and motivation. In a competition-based gamification system, students with lower abilities may feel left behind and lose motivation. The solution is for teachers to implement a differentiated gamification system where challenges and quests are tailored to students' ability levels, providing opportunities for each student to develop according to their capabilities, and emphasizing personal best achievement alongside group competition.

### **Effectiveness of Gamification on Student Motivation and Learning**

Outcomes From the perspective of motivation, students showed increased enthusiasm and activity in participating in Islamic Religious Education (PAI) lessons. Learning that was previously considered boring became more eagerly anticipated by students. They are more motivated to do their homework, memorize, and actively participate in discussions because of the element of competition and fun rewards. Parents reported that their children more

frequently discussed PAI learning activities at home and even continued moral missions outside of school hours.

From a cognitive perspective, there was an increase in understanding of Islamic Religious Education (PAI) material. Students found it easier to remember and understand the material because the learning was presented in an engaging and contextual format. The evaluation results show an increase in the average PAI scores of students compared to the period before the implementation of gamification. Students' memorization abilities also improved, with more students successfully reaching their target for memorizing short surahs.

From an affective perspective, there was a positive change in students' character and behavior.

The moral mission in gamification encourages students to practice Islamic values more frequently in their daily lives. Teachers reported a decrease in negative behaviors and an increase in positive behaviors such as cooperation, honesty, and caring for others.

From a psychomotor perspective, students showed improvement in their skills in religious practices. Simulation-based and role-playing learning makes students more confident and skilled in performing ablution, prayer, and other acts of worship. They not only memorize the theory but can also practice it correctly.

## DISCUSSION

## مناقشة

The findings of this study indicate that the PAI teachers' strategies in implementing gamification-based learning methods at SD Ibnu Katsir Berau have successfully improved the quality of PAI learning, both in terms of student motivation and learning outcomes. This finding aligns with the research objective to analyze the planning, implementation, challenges, solutions, and effectiveness of gamification in PAI learning.

The systematic planning strategies employed by PAI teachers at SD Ibnu Katsir Berau demonstrate a good understanding of gamification principles and the ability to adapt them within the context of PAI learning. The planning, which began with material analysis, selection of gamification elements, learning scenario design, and media preparation, shows a structured and thoughtful approach. This aligns with the principles of instructional design, which emphasize the importance of careful planning to ensure effective learning (Mouna et al., 2024).

The selection of gamification elements such as points, levels, badges, leaderboards, quests, and instant feedback reflects the teacher's understanding of the psychological mechanisms that drive student motivation and engagement. Keller (2010), in his ARCS (Attention, Relevance, Confidence, Satisfaction) theory, explains that learning motivation can be increased through strategies that capture attention, are relevant to students' needs, build self-confidence, and provide satisfaction. The gamification elements chosen by the PAI teacher effectively meet all four components.

What's interesting about this finding is the adaptation of gamification in the context of limited technological resources. Unlike previous studies that often used digital platforms or gamification applications (Gini et al., 2025). PAI teachers at Ibnu Katsir Elementary School in Berau successfully implemented gamification manually by utilizing concrete learning media. This finding is important because it shows that gamification is not exclusive to schools with advanced technological facilities, but can be adapted and implemented effectively even with limited resources. This expands the accessibility of gamification for schools in rural areas or with limited budgets.

The varied implementation of gamification for different types of Islamic Education

materials (memorization, worship practices, morals, and stories) demonstrates the flexibility and creativity of teachers in designing learning. Each type of material requires a different gamification approach depending on its characteristics and learning objectives. For memorization material, repetition-based games and rewards effectively increase motivation to repeat. For practical material, simulations and role-playing provide opportunities for hands-on practice. For values and character material, real-life missions encourage the transfer of learning from the classroom to daily life. This variation reflects the principle of differentiated instruction, which emphasizes the importance of tailoring learning strategies to the characteristics of the content and the learning needs of students (Suresh Babu & Dhakshina Moorthy, 2024).

The findings regarding the effectiveness of gamification on increasing student motivation are consistent with previous studies. Alzghoul (2024) in their meta-analysis found that gamification consistently has a positive effect on student motivation and engagement. Chen & Huang (2024) explain that game elements such as challenge, competition, and reward can activate students' intrinsic motivation. In the context of Islamic Religious Education (PAI) learning at SD Ibnu Katsir Berau, students showed high enthusiasm, active participation, and even continued learning outside of school hours, indicating that gamification successfully shifted motivation from external (grades, rewards) to internal (learning enjoyment, personal achievement).

The increase in cognitive learning outcomes found in this study is also consistent with the findings of previous research. Sailer & Homner (2020) found that gamification can increase cognitive learning by up to 34% compared to conventional methods. In the context of Islamic Religious Education (PAI) learning, improved material understanding and memorization skills indicate that gamification not only makes learning more fun but also substantially enhances the achievement of learning outcomes.

What distinguishes this research from previous studies is its focus on value and character learning in Islamic Religious Education (PAI) thru gamification. Most gamification studies focus on cognitive learning in exact sciences, while affective and psychomotor learning in religious education is still limited. The finding that the moral mission in gamification successfully promoted the practice of Islamic values in students' daily lives demonstrates the potential of gamification for character education. Lickona (2012) emphasizes that effective character education must involve moral knowing, moral feeling, and moral action. Gamification in PAI learning at SD Ibnu Katsir Berau successfully integrated these three components thru cognitive learning about values, emotional motivation thru game elements, and real-world practice thru moral missions.

The challenges faced by teachers in implementing gamification reflect the pedagogical complexity of adopting learning innovations. Limited technological resources, more complex classroom management, balancing fun and learning, and differences in student abilities are common challenges in implementing innovative learning (Shrestha et al. (2023). What's impressive is the teachers' ability to find creative and contextual solutions to these challenges. This highlights the importance of teacher agency and professional development in the successful implementation of learning innovations.

The gamification adaptation solution in manual form shows that technological pedagogical content knowledge (TPACK) is not just about using advanced technology, but also about understanding pedagogical and content principles, and then optimally adapting available technologies (both digital and analog) to achieve learning objectives (Azimkhan et al., 2025). PAI teacher at Ibnu Katsir Elementary School in Berau demonstrates good TPACK by understanding

the principles of gamification, identifying PAI learning needs, and adapting strategies with available resources.

A reward system that emphasizes positive motivation and avoids negative punishment reflects a good understanding of behaviorism and cognitivism theories in learning. Skinner (1953) emphasized the importance of positive reinforcement in shaping desired behaviors. However, contemporary research also emphasizes the risk of the over-justification effect, where external rewards can reduce intrinsic motivation. The PAI teacher at Ibnu Katsir Elementary School in Berau overcomes this risk by constantly reflecting on their teaching and emphasizing that rewards are appreciation, not the main goal, and by balancing competition with collaboration to maintain a focus on learning and Islamic values.

The differentiated gamification approach implemented to accommodate students' varying abilities demonstrates the principles of equity and inclusive education. Every student has the right to succeed and develop to their full potential. By adjusting the level of challenges and quests to students' abilities, gamification not only benefits high-achieving students but also provides opportunities for all students to experience achievement and build self-efficacy (Bandura, 1997).

The theoretical implication of this research is to enrich the literature on gamification in Islamic Religious Education (PAI) learning and character education. This research shows that gamification can be effectively used not only for cognitive learning but also for learning values, attitudes, and religious practices. The framework for teachers' strategies in designing and implementing gamification found in this study can serve as a model for future research and practice. A significant practical implication is providing concrete guidance for PAI teachers and other schools, especially in resource-limited areas, on how to effectively design and implement gamification. This research proves that learning innovation does not always require expensive technological investments, but can be achieved with creativity, a good pedagogical understanding, and a commitment to improving the quality of learning.

The limitation of this study is its focus on one specific school with a particular context, so generalizing the findings needs to be done with caution. Variations in the implementation of gamification in other schools may differ depending on the context, resources, and student characteristics. This research was also conducted within a limited time period (four months), so the long-term effects of gamification on student motivation and learning outcomes could not be comprehensively observed.

## CONCLUSSION | خاتمة

This research found that PAI teachers at SD Ibnu Katsir Berau have developed and implemented effective and contextual gamification-based learning strategies. This strategy includes systematic planning that starts with analyzing learning materials and objectives, selecting appropriate gamification elements, designing coherent learning scenarios, and preparing learning media. Gamification is implemented in various forms tailored to the characteristics of Islamic Religious Education (PAI) material, including tiered memorization games for Quranic material, worship simulations for practical material, noble character missions for character education, and story adventures for Islamic history material.

The practical contribution of this research is to provide a concrete model for gamification planning and implementation strategies in Islamic Religious Education (PAI) learning that can be adopted and adapted by other teachers and schools. The framework found includes specific steps in designing gamification, various forms of gamification activities for different types of Islamic

Religious Education materials, reward and motivation management systems, and solutions to overcome implementation challenges. This model is particularly valuable for schools with limited resources that want to implement learning innovations but are constrained by technical and financial factors.

This research opens up several avenues for future research that can enrich and expand our understanding of gamification in Islamic Religious Education (PAI) learning. First, longitudinal research needs to be conducted to observe the long-term effects of gamification on intrinsic motivation, learning retention, and students' religious practices after they graduate from elementary school. Second, comparative research between manual and digital gamification in PAI learning can provide insights into the advantages and disadvantages of each approach, as well as the optimal conditions for its implementation. Third, research on the scalability of this gamification model to other schools with various contexts can test the robustness and adaptability of the strategies found. Fourth, research on developing a professional development program for PAI teachers in designing and implementing gamification can support the wider dissemination of best practices. Fifth, mixed-methods research with a stronger quantitative component can provide more precise measurements of the magnitude of increased motivation and learning outcomes due to gamification. Sixth, research on integrating gamification with other learning approaches such as project-based learning or collaborative learning in Islamic Religious Education (PAI) can explore the synergy between methods for more optimal results.

With the right strategy, adequate support, and a commitment to continuous innovation, gamification has great potential to transform Islamic religious education into something more engaging, meaningful, and effective in achieving the holistic goals of Islamic education, namely shaping a generation of Muslims who not only have good religious knowledge but also noble character and are able to practice Islamic values in their daily lives.

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