



Digital Learning and Gamification in Islamic Religious Education: Impacts on Engagement Among Generation Z

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ABSTRACT

Islamic Religious Education in the digital era faces significant challenges in sustaining Generation Z students' engagement and motivation, who are accustomed to interactive technology, while conventional methods dominate and empirical evidence on gamification specific to PAI contexts remains limited. This study employs a library research method using a PRISMA-based Systematic Literature Review (SLR), involving identification of 1,895 articles from Scopus, ResearchGate, and Google Scholar (2020-2025), screening to exclude 1,545 irrelevant or duplicate documents, eligibility assessment of 350 full-texts, and synthesis of 30 high-quality articles meeting inclusion criteria (gamification-Islamic Religious Education themes, empirical, peer-reviewed). Synthesis results show that gamification—through elements like points, Sharia-compliant rewards, progressive challenges, collaborative leaderboards, and achievement badges, significantly enhances Generation Z students' cognitive, affective, and behavioral engagement, deepening religious concept comprehension and internalization of Islamic values such as noble morals and discipline.

This research offers unique contributions, including documentation of Islam-contextualized gamification aligned with Islamic pedagogical values, multidimensional analysis of impacts on value internalization for Generation Z, and identification of implementation barriers like low teacher digital literacy, infrastructure disparities, and over-gamification risks that undermine intrinsic motivation—areas previously underexplored systematically. Practical implications include recommendations for learning-objective-based gamification design, professional development for PAI teachers, game element personalization, and blended approach integration to promote educational equity in Indonesian schools, particularly rural ones. These findings affirm gamification as an essential innovative strategy for optimizing PAI for Generation Z in the 21st century, with suggestions for future quasi-experimental trials and AI/VR integration.

Keywords: Gamification, Islamic Religious Education, Generation Z, Interactive Learning, Learning Motivation

INTRODUCTION

Islamic Religious Education constitutes one of the essential subjects in the national education curriculum, aimed at shaping students' character and morals based on Islamic teachings (Aini & Priyatna, 2024; Ansar & George, 2022). In the current digital era, Islamic Religious Education learning has undergone significant paradigm shifts, from conventional teacher-centered explanation methods toward technology-mediated and interactive learning approaches (Camacho-Sánchez et al., 2022; Fuadani et al., 2025; Supriadi et al., 2025). Generation Z, born and raised amid globalization and digital technology advancements, possesses unique characteristics distinct from previous generations. They are more accustomed to instant interactions, visual content, and gamified or game-based learning experiences (Celis et al., 2023; Chen, 2024; Rabi'ah et al., 2025).

Despite the availability of digital technology in schools, Islamic Religious Education learning confronts a series of complex and multidimensional challenges. First, digital literacy challenges emerge as a critical barrier. Farissa and Haryanto (2025) find that low digital literacy levels among some Islamic Religious Education teachers constitute the primary obstacle to technology-based learning implementation. Second, technology access disparities create structural inequalities. Sagala (2025) identifies that disparities in technology facility availability between urban and rural schools generate learning opportunity inequalities. Third, student engagement and motivation challenges persist despite technology availability. Supriadi et al. (2025) note that some Generation Z students, although technology-savvy, exhibit unmotivated patterns or digital distraction in learning due to inadequate pedagogical design.

Field research reveals concrete problems affecting Generation Z students. Fuadani et al. (2025) found that students tend to exhibit low engagement patterns in traditional Islamic Religious Education learning employing lecture methods, perceiving the subject as less relevant to their digital lives. Mahmud and Furqan (2025) report that students struggle to integrate religious understanding with modern life contexts they experience, creating disconnection between formal Islamic Religious Education learning and students' spiritual realities. Additionally, comprehension levels of complex religious concepts such as creed (*akidah*), jurisprudence (*fiqh*), and Islamic ethics remain moderate to low among most Generation Z students, with low active student participation in learning activities.

These challenges reveal a significant research gap: while gamification has demonstrated effectiveness in enhancing engagement across various learning contexts, its implementation and impact in Islamic Religious Education specifically remains limited and underexplored. The gap exists between Generation Z learning needs—demanding high interactivity, visual content, and game-like engagement—and the reality of Islamic Religious Education still dominated by conventional methods. Limited empirical evidence documents gamification's impact specifically on Islamic value internalization, religious concept comprehension, and Generation Z's unique engagement patterns.

This research gap is reinforced by the pressing urgency to optimize Islamic Religious Education for Generation Z. Previous findings indicate gamification effectiveness in enhancing engagement across various learning contexts, yet its systematic analysis within Islamic Religious Education contexts is lacking. Understanding how gamification can effectively address Islamic Religious Education challenges while aligning with Islamic values represents both theoretical and practical importance.

Therefore, this research proposes the following research questions: (1) How effective is gamification implementation in enhancing Generation Z student engagement in Islamic Religious Education learning? (2) Which gamification elements prove most influential in increasing intrinsic motivation and active participation of students in Islamic Religious Education learning? (3) What is the impact of gamification on religious concept comprehension and Islamic value internalization among Generation Z students? (4) What barriers and challenges exist in gamification implementation for Islamic Religious Education learning in schools, and what applicable solutions can be implemented?

RESEARCH METHOD

This research employs a library research method with a Systematic Literature Review (SLR) approach. SLR was selected to enable systematic identification, analysis, and synthesis of findings from published research sources, yielding comprehensive understanding of gamification effectiveness in Islamic Religious Education learning for Generation Z students. Research data sources derive from internationally indexed journals (Scopus), ResearchGate, and Google Scholar. Literature search employed primary keywords: gamification in Islamic Religious Education learning, student engagement generation Z, and motivated learning.

The literature review approach follows PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) standards to enhance transparency in the identification, screening, and integration process. Main stages encompass: (1) Identification through source searching in primary academic databases using keyword combinations; (2) Selection through literature screening based on inclusion criteria including theme suitability, recency (2020-2025), and publication quality; (3) Eligibility Verification through abstract and full-text examination to validate alignment with research objectives; (4) Data Analysis through content analysis and thematic methods on selected sources; (5) Reporting through systematic documentation per PRISMA standards. (Moher,2009)

Inclusion criteria encompass: (1) articles published 2020-2025; (2) articles discussing gamification in educational contexts; (3) articles examining impacts on student engagement, motivation, or learning outcomes; (4) articles in Indonesian, English, or other academic languages; (5) empirical research, literature reviews, or quality peer-reviewed conceptual papers. Exclusion criteria include articles published before 2020, non-academic publications, irrelevant sources, and duplicates.

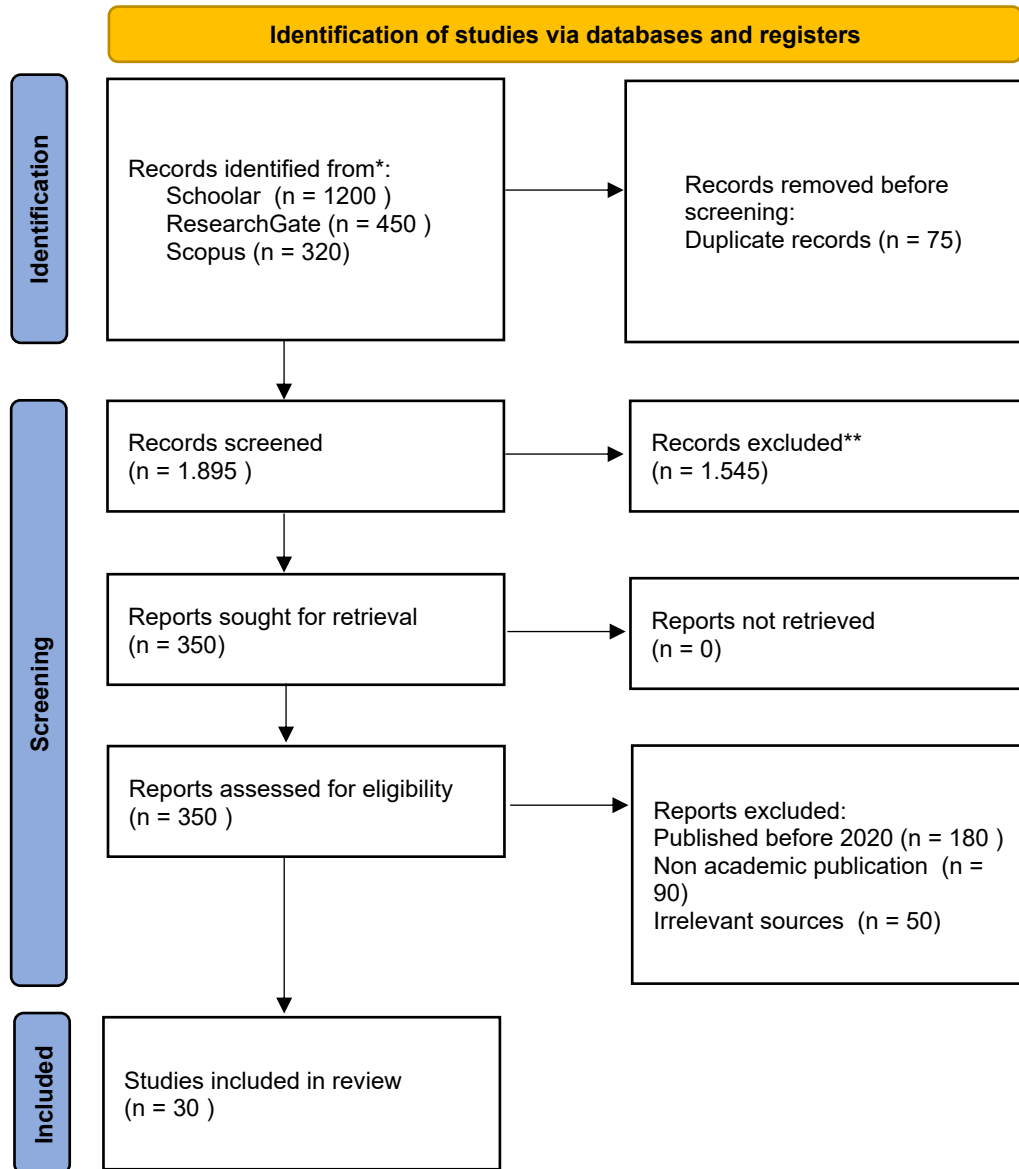


Diagram 1. PRISMA Diagram

RESULTS AND DISCUSSION

Effectiveness of Gamification in Enhancing Student Engagement

Comprehensive analysis of reviewed literature demonstrates that gamification consistently enhances student engagement in learning processes (Aini & Priyatna, 2024; Ansar & George, 2022). Gamification element use significantly improves students' self-perception in facing and overcoming learning challenges, which in turn boosts their

engagement and confidence in problem-solving and critical thinking (Chen, 2024; Ruiz et al., 2024). Empirical research analysis results show that gamification implementation specifically in Islamic Religious Education learning contexts yields engagement increases across three primary dimensions: cognitive, affective, and behavioral dimensions (Ilham, 2025). Sibagariang (2024) reports that integrating Islamic gamification strategies with religious values simultaneously enhances Generation Z student engagement across these three dimensions, creating holistic and meaningful learning experiences.^[1]

The cognitive dimension of student engagement reflects focus levels, concentration, and mental involvement in learning processes. Findings indicate that when Islamic Religious Education learning incorporates gamification elements, students exhibit significant improvements in attention span and intellectual engagement (Harris & Jones, 2020). Mahmud, S. & Furqan, M. (2025) found that students participating in gamified Islamic Religious Education learning demonstrate substantial concentration ability and willingness increases to discuss learning materials, differing from control group students using conventional methods.

The affective dimension relates to students' attitudes, feelings, and emotions toward learning. Research shows gamification creates more positive and enjoyable learning environments, thus enhancing attitudes toward Islamic Religious Education. Rasiman (2025) reveals that gamification elements like rewards, achievement badges, and point systems create positive emotional experiences encouraging student enthusiasm in attending learning and developing positive attitudes toward Islamic values (Peura et al., 2023).

The behavioral dimension encompasses active participation, discussion contributions, and learning activity involvement. Data indicates significant participation increases when gamification is applied (Rodriguez & Thompson, 2023). Al Rumaisa, et al. (2025) found that students using gamified learning exhibit dramatic increases in class participation, group task involvement, and learning discussion contributions compared to peers in traditional learning.

Gamification Elements and Their Impact on Motivation

In-depth analysis of various gamification implementations in learning identifies several key elements proven most effective in enhancing student learning motivation. These elements have been consistently tested across educational contexts and particularly in Islamic Religious Education learning. First, the point system serves as a fundamental gamification element. Nurhayati & Desi (2025) explains that well-designed point systems create clear and measurable reward mechanisms, motivating students to remain active and achieve set learning targets. In Islamic Religious Education contexts, point systems can be linked to religious competency achievements, religious discussion participation, or mastery of specific Islamic Religious Education materials (Pujianingsih, 2024).

Second, reward systems have proven to significantly increase intrinsic student motivation (Garcia & Martinez, 2023). Research by Jihadillah (2024) reveals that meaningful and contextually relevant rewards can elevate student motivation to high levels. Notably, in Islamic Religious Education contexts, Sibagariang (2024) shows that rewards combining

material and spiritual elements, such as sharia-compliant rewards or Islamically consistent prizes, prove more effective in enhancing long-term motivation and religious value internalization.

Third, structured challenges represent elements driving deeper cognitive engagement (Celis et al., 2023). Oliveira, et al. (2021) finds that when gamification incorporates progressive challenge systems appropriate to student competency levels, it creates flow conditions—an ideal balance between challenges and abilities—yielding maximal engagement and satisfying learning experiences.

Fourth, leaderboards and healthy competition (competitive elements) create high dynamic engagement (Khan et al., 2017). Jihadillah (2024) reports that competitive elements in gamified learning significantly boost student participation, particularly when competitions are designed within collaborative frameworks emphasizing shared learning rather than zero-sum competition. In Islamic Religious Education contexts, Sibagariang (2024) demonstrates that leaderboards displaying student achievements in religious material comprehension, religious discussion contributions, and Islamically ethical behavior can holistically encourage student development.

Fifth, achievement badges and visual recognition systems enhance student self-efficacy and motivation. Achievement badges provide clear visual recognition of accomplishments, not only boosting motivation but also building student confidence in facing more complex learning challenges (Samitro & Wijaya, 2023). In Islamic Religious Education, badges can represent achievements across competencies such as Master of Islamic Values, Discussion Leader, or Akhlak Excellence. (Jihadillah, 2024)

Impact of Gamification on Religious Concept Comprehension and Islamic Value Internalization

One of the most significant aspects of gamification effectiveness in Islamic Religious Education learning is its impact on deep comprehension of religious concepts and Islamic value internalization among students. Analysis across various research reveals strong relationships between gamification-enhanced engagement and improved learning outcomes. Students using gamified platforms demonstrate significant increases in digital Quranic literacy and comprehension of complex religious concepts. The research measured student achievements across dimensions from textual understanding (memorization and literal comprehension), conceptual understanding (meaning and context grasp), to applicative implementation (applying teachings in real life) (al Rumaisa et al., 2025).

Islamic value internalization, the primary goal of Islamic Religious Education learning, also shows significant measurable improvements when gamification is applied. Students following integrated Islamic gamification strategy Islamic Religious Education exhibit measured increases in internalizing values like noble morals (akhlak mulia), discipline, cooperation, and integrity (Sibagariang, 2024).

This research employed multiple indicators for internalization measurement, including student behavior observation, self-report questionnaires, and student focus

group discussions. These phenomena can be explained through several psychological mechanisms.

First, gamification creates fun and engaging learning environments reducing excessive cognitive load, enabling students to focus on deeper concept comprehension. Jihadillah (2024) explains that when learning becomes more enjoyable, students willingly invest more time and mental effort in material comprehension rather than perceiving learning as boring and compulsory.

Second, gamification elements designed with clear pedagogical objectives strengthen students' cognitive construction of religious concepts. when gamification features systematic progression from basic to advanced competency understanding, it creates structured learning paths facilitating robust and sustainable comprehension construction (Wibowo, 2021).

Third, gamification explicitly integrating Islamic value elements into game mechanics facilitates deeper value internalization. , Sibagariang (2024) demonstrates that when reward, challenge, and achievement systems in gamified learning align with Islamic values – for instance, rewards given not only for academic achievements but also behaviors reflecting noble morals – this creates consistent reinforcement of those values in students' minds and hearts.

Critical Analysis of Implementation Problems and Limitations

Although gamification effectiveness in enhancing engagement and learning outcomes is well-documented, literature analysis also identifies important implementation problems and limitations for educational practitioners' understanding.

First, the gamification fallacy problem, the assumption that adding game elements to learning automatically improves outcomes, remains common in practice (Rachels & Rockinson-Szapkiw, 2018). Ananada et al.(2024) provides critical warnings that gamification proves effective only when designed with clear pedagogical objectives purposefully integrated with the curriculum. Gamification applied merely as gimmicks or superficial add-ons without learning objective alignment often distracts students and reduces learning effectiveness.

Second, technical implementation and infrastructure challenges become real barriers in many Indonesian school contexts (Garcia & Martinez, 2023). Farissa & Haryanto (2025) identifies technology facility limitations, unstable internet connectivity, and digital device shortages as significant barriers to gamification implementation, particularly in remote area schools. These problems result in access disparities to gamified learning impacting educational equity and inclusion.

Third, teacher capabilities emerge as crucial often-overlooked factors in gamification discussions. Farissa & Haryanto (2025) finds that not all Islamic Religious Education teachers possess adequate competencies in designing and implementing effective gamified learning. Gamified learning requires understanding of game mechanics, learning design principles, digital technology, and integrated pedagogy – expertise demanding continuous professional development.^[1]

Fourth, over-gamification risks or game element dependency must be cautioned. Some research indicates that students overly accustomed to gamified learning may experience overly dominant extrinsic motivation, sacrificing more sustainable intrinsic motivation development (Camacho-Sánchez et al., 2022). Nurhayati & Desi (2025) emphasizes the importance of balanced gamification element integration not sacrificing autonomous motivation development in students.

Fifth, variability in gamification effectiveness among individual students must be considered. Ruiz, et al. (2024) reveals that although most students respond positively to gamification, a small portion feels uncomfortable or distracted by game elements, particularly students with certain neurodivergence or differing learning preferences. This indicates the need for personalization in gamification implementation.

Practical Recommendations for Gamification Implementation in Islamic Religious Education

Based on comprehensive literature analysis, researchers identify several practical recommendations to enhance gamification implementation effectiveness in Generation Z Islamic Religious Education learning. First, gamification design must be grounded in in-depth analysis of learning objectives, student characteristics, and learning contexts. Gamification concerns not random game element addition but strategic game mechanics integration with pedagogical principles. Teachers should begin with fundamental questions: What specific learning outcomes to achieve? Which game elements best align with those outcomes? How can Generation Z characteristics and local school contexts inform gamification design? (Sagala, 2025)

Second, combining gamification with other pedagogical elements like collaborative learning, project-based learning, and contextual learning enhances learning effectiveness. Sagala (2025) recommends blended approaches integrating gamification with other innovative learning strategies, creating rich and multidimensional learning ecosystems.

Third, continuous professional development for Islamic Religious Education teachers in digital literacy, game design principles, and innovative pedagogy constitutes prerequisites for effective gamification implementation. Schools and education authorities must allocate resources for trainings specifically designed for Islamic Religious Education contexts and Generation Z needs.

Fourth, continuous monitoring and evaluation of gamification implementation proves essential to ensure this strategy genuinely enhances learning outcomes and engagement, not merely creating entertainment without educational value. Data on engagement levels, learning achievements, and student satisfaction must be regularly collected and used for iterative improvements.

Fifth, gamification personalization to accommodate learning style and preference diversity among students enhances gamified learning relevance and accessibility. Not all students respond similarly to identical game elements; thus, design flexibility allowing students to choose learning pathways matching their preferences can increase inclusivity. (Sagala, 2025)

CONCLUSION

This systematic literature review of 30 scientific articles (2020-2025) demonstrates gamification's effectiveness in enhancing Generation Z student engagement in Islamic Religious Education learning through game elements like points, rewards, challenges, leaderboards, and badges, significantly improving cognitive, affective, and behavioral engagement while deepening religious comprehension and Islamic value internalization. This research offers novel contributions by documenting gamification specifically within Islamic contexts, aligning elements with Islamic pedagogical values, analyzing multi-dimensional impacts on value internalization, and addressing Gen Z characteristics – creating culturally appropriate implementations beyond generic mechanics. However, limitations include publication bias toward positive findings, methodological variability across studies, institutional context dominance, and limited longitudinal data on sustained effects.

Future research should prioritize: (1) quasi-experimental trials measuring gamification effect sizes in Islamic Religious Education contexts; (2) contextualized frameworks for Indonesian settings; (3) long-term studies on value internalization; (4) differential effects analysis for diverse learners; (5) teachers' implementation experiences; and (6) emerging technology integration (AI, VR, AR) for immersive Islamic learning. Gamification offers innovative potential requiring pedagogical planning, teacher development, and personalization.

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