



Interface Design of Quranic Application using Design Science Research Methodology: A Comparison of Gamification and Non-Gamification Design

Asidik Al Jafar¹, Margareta Hardiyanti^{1*}, Rachmadita Andre Swari²

¹ Universitas Gadjah Mada, Yogyakarta, Indonesia

² Humboldt universität zu Berlin, Berlin, Germany



DOI : <https://doi.org/10.46245/ijorer.v6i1.721>

Sections Info

Article history:

Submitted: November 20, 2024

Final Revised: January 7, 2025

Accepted: January 8, 2025

Published: January 31, 2025

Keywords:

Engagement;

Gamification;

Motivation;

Non-Gamification;

Quran Recitation.



ABSTRACT

Objective: To improve student motivation and engagement through an intuitive mobile interface with interactive visuals. **Method:** Using Design Science Research Methodology (DSRM), this study compares gamified and non-gamified interface designs. **Results:** User Experience Questionnaire (UEQ) results indicate that the gamified version outperforms the non-gamified design, particularly in stimulation and attractiveness, positively impacting learner and teacher satisfaction. Additionally, the Intrinsic Motivation Inventory (IMI) confirms that gamification significantly increases students' motivation, while the User Engagement Scale (UES) highlights the gamified version's effectiveness in creating an enjoyable, engaging, and impactful learning experience. **Novelty:** This research uniquely contrasts gamified and non-gamified designs in Quranic education, providing insights for quality improvement in Islamic e-learning platforms.

INTRODUCTION

Indonesia, with its majority Muslim population, has a longstanding tradition of non-formal Quranic education called *mengaji*, introduced by parents to their children as part of religious upbringing (Astiana, 2024). Islamic education has evolved to remain relevant in contemporary society, aligning with modernization efforts to integrate religious teaching with advancements in technology and new perspectives (Elihami et al., 2024). This modernization of Islamic education includes paradigm shifts, emerging movements, and reform initiatives aimed at renewing established religious knowledge, traditions, and institutions (Firmansyah et al., 2023). This shows that Islamic education must remain adaptable to contemporary context, including utilizing technology to increase effectiveness (Karami & Dahlan, 2022).

In response, Akram Afifi Holdings introduced *Mengaji Online*, an innovative Learning Management System (LMS) that offers a more flexible format for Quranic learning. The platform provides interactive, scheduled sessions between students and teachers, allowing for structured, on-demand learning. However, the *Mengaji Online* LMS faces design challenges, particularly in user experience, due to the absence of a mobile-friendly version and limited visual appeal, which hinders student engagement. Consequently, students often access the platform only during scheduled sessions, rarely exploring additional features due to the lack of interactivity. This contributes to low user involvement, impacting the platform's overall success (Steffen et al., 2023).

ORIGINALITY REPORT

16%

SIMILARITY INDEX

11%

INTERNET SOURCES

12%

PUBLICATIONS

2%

STUDENT PAPERS

PRIMARY SOURCES

1

journal.universitasbumigora.ac.id

Internet Source

3%

2

Aqra, Ahmed H.. "A Management Framework for Sharing-Economy Services in a Smart City.", The University of Regina (Canada), 2020

Publication

2%

3

www.researchgate.net

Internet Source

1%

4

www.ceocongress.org

Internet Source

1%

5

Doğan, Özgür. "Investigating the Impact of Gamification on Student Engagement and Vocabulary Achievement in a Blended Eap Course", Middle East Technical University (Turkey), 2024

Publication

1%

6

Suratchanee Yolthasart, Kannikar Intawong, Phimpakan Thongthip, Kittit Puritat. "The Game of Heritage: Enhancing Virtual Museum

<1%