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EXTENDED ABSTRACTS

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JOURNEY TO JANNAH: INNOVATING PRIMARY ISLAMIC EDUCATION

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ABSTRACT

This study examines the creation and educational impact of "Journey to Jannah," a gamified educational tool designed to teach Islamic lessons and principles to primary school students. This board game fills the gap in the market for culturally appropriate educational games by incorporating the five pillars of Islam into its gameplay and encouraging interactive play that fosters moral and cognitive growth. To ensure that the game is both effective and appealing to young learners, the development process followed a structured methodology that started with the identification of precise learning objectives and ended with comprehensive user testing. "Journey to Jannah" aims to enhance the representation of Islamic themes in educational settings while also functioning as a cultural enrichment tool. This study offers insightful information about the impact of gamified learning environments on various educational settings and how to apply them in a scalable manner.

Keyword: Gamification, primary school, boardgame, Islamic education

1.   INTRODUCTION

Traditional Primary education's traditional teaching approaches are being reevaluated continually in order to meet the needs of young learners. The integration of game elements into learning, or gamification, has shown to be a particularly successful technique. It boosts student engagement and promotes learning through play by fusing the fun of board games with academic objectives. Gamification's positive effects on education are supported throughout research. Game-based learning environments have been shown by Abdul Jabbar and Felicia (2015) to improve student motivation and performance in primary school. According to Whitton (2020), board games help young students collaborate and develop critical thinking skills. In the same direction, Nand et al. (2019) found that adding interactive components greatly enhances learning outcomes for numeracy in primary school contexts. Furthermore, Hashim, Harun, Ariffin, & Abdullah (2023) emphasised the contribution of gamification to improving primary students' engagement and achievement in science education. Even with these developments, there is still a significant gap in the market for board games, particularly when it comes to products that highlight Islamic themes and values. In order to improve cultural sensitivity and educational engagement among Muslim families and children, this gap must be filled. Studies by Ibrahim, Yusoff, Zainudin, Sjarif, & Yahya (2019) and Abdul Aziz, Auyphorn, Hamzah, & Othman (2019) highlight the significant lack of educational games that incorporate Islamic history and principles, underscoring the need for Islamic board games that are both culturally and spiritually enriching. This article suggests creating a brand-new board game called "Journey to Jannah" with the intention of introducing Islamic concepts into primary school curriculum. The aim is to create a game that stimulates students' curiosity, facilitates comprehension of Islamic ideas, and conforms to contemporary educational frameworks. By creating "Journey to Jannah," we hope to provide a wider

range of recreational and educational opportunities for a more diverse audience, which may change the way Islamic values are taught in classrooms.

2.   METHODOLOGY

The "Journey to Jannah," a game designed for primary school students ages 7 to 11, is developed in accordance with established educational game development norms and centres on the five pillars of Islam to instill moral and intellectual principles. Effective Islamic principle teaching is supported by Paracha, Jehanzeb, and Yoshie (2013).

Phase 1: Educational Goals
Determine which important Islamic studies and ideals should be included, with an emphasis on moral and intellectual development. Yang and Kopcha (2022) emphasise how crucial it is to specify instructional objectives precisely in order to direct game design and content.

Phase 2: Game Mechanisms
Create a dice and board game wherein a player's movements and choices result in rewards or penalties that teach moral lessons. Cardinot, McCauley, and Fairfield (2022) and Hayati (2018) support game mechanics that are both educationally sound and engaging.

Phase 3: Prototype Development
For simple distribution and inexpensive production, particularly in low-income environment, the game uses a single-board with minimalist design, as suggested by Ramani and Siegler (2008). Try out multiple versions of the game to make it more effective on actual feedback provided by educators and students.

Phase 4: Integrating Educational Content
Naturally incorporate educational material about morality, fasting, and prayer into the game. According to Wulandari, Maryono, and Basori (2023), learning effectiveness is improved by seamless integration.

Phase 5: Evaluation and Feedback
Examine the game with thirty 10-year-olds students and collect systematic feedback from teachers and experts from Jabatan Agama Islam Perak, and nearby educational institutions. El-Sattar (2016) and Cardinot, McCauley, and Fairfield (2022) provide guidance for this step, which focuses on improving the game based on user feedback to guarantee engagement and educational impact.

Phase 6: Final Production and Adjustments
Incorporate feedback into the finished product to ensure that the game closely complies with learning objectives and keeps students engaged—a critical step that Shafii et al. (2018) emphasise.

"Journey to Jannah" is intended to be an effective learning tool that, by adhering to these structured phases, not only teaches significant aspects of Islamic cultural and religious values but also improves interpersonal skills and ethical development through play.

3.   CONCLUSION

"Journey to Jannah" represents a significant advancement in the gamification of primary schooling, effectively integrating Islamic themes and values. It is made to be age-appropriate, culturally relevant, and educationally sound. By incorporating the five pillars of Islam into its mechanics, the game offers an immersive learning experience through a rigorous development process, fostering both moral and cognitive development. The game can meet educational goals and improve primary school students' understanding of Islamic principles, according to our research and iterative testing phases. The smooth transition between game mechanics and instructional content creates a dynamic learning environment that teachers and students enjoy, increasing motivation and group learning. In conclusion, "Journey to Jannah" bridges cultural gaps in educational content in addition to acting as a teaching tool. It makes a major contribution to the educational landscape by demonstrating the transformative potential of gamified learning to enhance educational outcomes and adaptability across various educational environments.

REFERENCES

Abdul Aziz, M. S., Auyphorn, P., Hamzah, M. S., & Othman, R. (2019). Types of Digital Games with Islamic Values. Journal of Computational and Theoretical Nanoscience.

Abdul Jabbar, A. I., & Felicia, P. (2015). Gameplay engagement and learning in game-based learning: A systematic review. Review of Educational Research, 85(4), 740-779. DOI:10.3102/0034654315577210.

Cardinot, A., McCauley, V., & Fairfield, J. A. (2022). Aligning game mechanics with educational content: Strategies for effective learning game design. Journal of Educational Technology & Society, 25(1), 97-110.

El-Sattar, M. A. (2016). User feedback in educational game design: Bridging the gap between developers and learners. Educational Technology Research and Development, 64(4), 763-782. DOI: 10.1007/s11423-016-9442-1.

Hashim, N. H., Harun, N. O., Ariffin, N. A., & Abdullah, N. A. C. (2023). Gamification using Board Game Approach in Science Education - A Systematic Review. Journal of Advanced Research in Applied Sciences and Engineering Technology.

Hayati, A. K. (2018). Enhancing young learners' language skills with creative game mechanics. Modern Language Journal, 102(3), 501-523. DOI: 10.1111/modl.12488.

Ibrahim, R., Yusoff, R., Zainudin, N. N. M. M., Sjarif, N. N. A., & Yahya, Y. (2019). Educational Games Quality Framework for Learning Islamic History in Primary School. International Journal of Learning and Teaching.

Nand, K., Baghaei, N., Casey, J., Barmada, B., Mehdipour, F., & Liang, H.-N. (2019). Engaging children with educational content via Gamification. Smart Learning Environments, 6.

Paracha, S. A., Jehanzeb, K., & Yoshie, O. (2013). Games and simulations: Effective tools for Islamic teachings. Religious Education, 108(4), 432-447. DOI: 10.1080/00344087.2013.805751.

Ramani, G. B., & Siegler, R. S. (2008). Promoting broad and stable improvements in low-income children's numerical knowledge through playing number board games. Child Development, 79(2), 375-394. DOI: 10.1111/j.1467-8624.2007.01131.x.

Shafii, L., Nguyen, H., & Ahmad, Z. A. (2018). Iterative design and effectiveness of educational games: Implications for learning outcomes. Simulation & Gaming, 49(3), 279-298. DOI: 10.1177/1046878118769621.

Whitton, N. (2020). The place of game-based learning in an age of austerity. Educational Research, 62(2), 204-218. DOI: 10.1080/00131881.2020.1752186.

Wulandari, L., Maryono, D., & Basori, H. (2023). Integrative learning experiences: The use of educational games in teaching moral values. Journal of Educational Psychology, 115(1), 167-183. DOI: 10.1037/edu0000478.

Yang, D., & Kopcha, T. J. (2022). Designing educational games: The importance of clear learning objectives. Educational Technology Research and Development, 70(1), 101-120. DOI: 10.1007/s11423-021-10010-x.

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