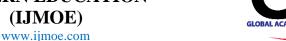


INTERNATIONAL JOURNAL OF MODERN EDUCATION (IJMOE)





STRATEGIC GAMIFICATION FOR RELIGIOUS LEARNING: AN EMPIRICAL LITERATURE REVIEW

Nur 'Atieqah Mohd Zainudin^{1*}, Miftachul Huda²

- Department of Islamic Studies, Human Science Faculty, Universiti Pendidikan Sultan Idris Email: puanatieqahzainudin@gmail.com
- Department of Islamic Studies, Human Science Faculty, Universiti Pendidikan Sultan Idris Email: miftachul@fsk.upsi.edu.my
- * Corresponding Author

Article Info:

Article history:

Received date: 24.10.2024 Revised date: 10.11.2024 Accepted date: 20.12.2024 Published date: 31.12.2024

To cite this document:

Zainudin, N. 'A. M., & Huda, M. (2024). Strategic Gamification For Religious Learning: An Empirical Literature Review. *International Journal of Modern Education*, 6 (23), 854-864.

DOI: 10.35631/IJMOE.623059

This work is licensed under **CC BY 4.0**



Abstract:

This study aims to empirically examine the effectiveness of gamification strategies in religious learning as well as identify the challenges and opportunities that exist in efforts to enrich the learning experience of students under the Dini Integrated Curriculum known as Kurikulum Bersepadu Dini (KBD). Through a comprehensive and detailed literature review, this study analyzes the use of innovative gamification elements such as artificial intelligence (AI), augmented reality (AR), and advanced multimedia support in increasing students' motivation and interest in learning religion in Arabic Language. The results of the study show that the integration of this technology with traditional gamification elements such as points, badges, and leaderboards can trigger deeper student engagement and improve learning effectiveness. Students show a higher interest in learning activities and the ability to understand and remember religious concepts more deeply and effectively. However, this study also identified several challenges in the implementation of gamification, including the urgent need for comprehensive training and professional development for teachers as well as the provision of sound technological infrastructure and technical support in schools. By providing practical guidance and detailed recommendations for teachers, this study aims to assist in the application of effective gamification techniques in religious teaching, particularly in the context of KBD. This study concludes that gamification, if applied with the right strategy, has great potential to enrich the religious learning experience and achieve comprehensive and holistic educational goals under KBD, further fostering a generation of more knowledgeable and highly motivated students. With this, it is hoped that religious teaching can become more dynamic, interesting and relevant to today's young generation, as well as fulfilling the aspirations of the National Education Philosophy, the Islamic Education Philosophy and the Malaysian Education Development Plan.

Keywords:

Gamification, Religious Learning, Arabic, Artificial Intelligence (AI), Augmented Reality (AR)

Introduction

In this highly sophisticated era of globalization, religious education faces great challenges in ensuring its effectiveness and appeal to the younger generation. Religious education is an important component in the formation of a student's character and morals. However, traditional and static teaching methods often fail to attract their interest. Conventional teaching approaches that rely on lectures and teacher-centered learning leave less room for interaction and active involvement of students. This causes their level of motivation to study this subject to decrease significantly. This lack of motivation affects religious learning and reduces the effectiveness of education as a whole. More seriously, the limited exposure to gamification courses among teachers causes a lack of innovation in teaching approaches. Teachers who are not exposed to gamification techniques may face challenges in creating an interactive learning environment and motivating students. This situation results in religious teaching not being able to meet the needs of dynamic and interactive learning, by the learning style of today's students. As a result, students who are only exposed to conventional learning methods may feel bored and less motivated to learn, which ultimately affects their academic performance (Subhash & Cudney, 2020; Koivisto & Hamari, 2019).

The Dini Integrated Curriculum (KBD) introduced by the Ministry of Education places special emphasis on religious studies in the Arabic language. This curriculum aims to strengthen students' understanding of religion comprehensively and in-depth by utilizing Arabic in teaching and learning. KBD plays an important role in realizing the aspirations of the National Education Philosophy and Islamic Education Philosophy, which emphasize balanced development in terms of intellectual, spiritual, emotional, and physical aspects. KBD is also aligned with the Malaysian Education Development Plan, which aims to ensure students master knowledge, thinking skills, leadership skills, bilingual proficiency, ethical and spiritual skills, as well as a strong sense of national identity. In 2015, the traditional Islamic education curriculum was integrated into the national syllabus under the name KBD (Kurikulum Bersepadu Dini) and has been progressively reviewed to meet the new policies under the Malaysian Education Development Plan (PPPM) 2013-2025. This integration ensures that the curriculum implemented in secondary schools is on par with international standards (Ministry of Education Malaysia, 2013). However, the effectiveness of KBD is hindered by traditional teaching methods that fail to engage students. The lack of innovation in the teaching approach makes the teaching of religion in the Arabic language less interesting and relevant to students. Therefore, there is an urgent need to explore and implement more effective and engaging learning strategies, such as gamification (Hamari, Koivisto, & Sarsa, 2020).

Gamification, which combines game elements in learning, has the potential to increase students' motivation and interest in religious subjects taught in Arabic Language. Through the utilization of game elements, students can be actively involved in learning, which in turn increases their level of enthusiasm, understanding, and motivation for religious subjects. As such, this writing aims to empirically examine the effectiveness of gamification strategies in



religious learning, as well as identify challenges and opportunities that exist in an effort to enrich students' learning experiences under KBD. This study will provide an in-depth view of how gamification can be used as an effective tool to increase students' motivation and interest in learning religious subjects in Arabic Language, as well as provide practical suggestions for teachers in applying gamification techniques in their teaching. With this, it is hoped that religious teaching can become more dynamic, interesting, and relevant to today's young generation, as well as fulfilling the aspirations of the National Education Philosophy, the Islamic Education Philosophy, and the Malaysian Education Development Plan (Turan, Avinc, Kara, & Goktas, 2021; Furdu, Tomozei, & Köse, 2021).

Literature Review

The Effectiveness of Gamification in Enhancing Students' Motivation and Interest for Religious Learning in Arabic Language

The effectiveness of gamification in increasing students' motivation and interest in religious learning has become a topic that is gaining more and more attention in the field of education. Previous studies have shown that the use of game elements in learning can significantly increase student engagement (Koivisto & Hamari, 2019). Gamification has the potential to make religious learning more interesting and relevant to today's students. In the context of religious learning, gamification can provide a more interactive and fun learning atmosphere, which in turn can increase students' understanding and appreciation of this subject (Looyestyn et al., 2017). A study by Seaborn and Fels (2021) shows that gamification can increase students' intrinsic motivation, which is an important factor in long-term learning. Elements such as badges, points, and scoreboards can provide instant feedback to students, which helps them understand their progress and motivates them to keep trying. In addition, gamification can also help reduce boredom and increase students' interest in subjects they may consider difficult or less interesting (Jin & Kim, 2020). From a psychological perspective, gamification supports the Self-Determination Theory (SDT) presented by Deci and Ryan (1985). This theory states that an individual's intrinsic motivation is influenced by three main elements: autonomy, competence, and social relationships. Gamification can meet these three elements by giving students the opportunity to make choices in their learning (autonomy), providing challenges that suit their level of ability (competence), and building a sense of togetherness through social elements such as scoreboards and competitions (social relationships). (Berkling & Thomas, 2021). A study by Rigby et al. (2021) also found that game elements can increase the feeling of competence and autonomy among students, which in turn increases their intrinsic motivation. Gamification provides students with immediate feedback on their performance, which helps them understand where they are in the learning process and what needs to be improved. This not only increases their sense of competence but also gives them control over their learning, which is an important element in increasing intrinsic motivation.

In the context of religious education, active involvement and interaction provided by gamification can help students understand religious concepts more deeply and meaningfully. A study by Sailer and Homner (2020) supports this view by showing that students involved in gamified learning tend to be more motivated and have a more positive attitude towards learning. Therefore, the application of gamification in religious learning can not only increase students' motivation and interest, but can also enrich their learning experience as a whole. From the perspective of language theory, gamification in religious learning, especially in Arabic, can provide a richer and more meaningful context to students. Interactive Language Learning



Theory suggests that mastery of a second or foreign language can be improved through activities that involve active interaction and immediate feedback. Gamification provides a learning environment where students can communicate and interact in Arabic in a fun and meaningful way (Deterding, 2021).

According to Krashen's Theory (2020), the input hypothesis states that language learning occurs when students are exposed to language input that can be understood slightly beyond their current level. Game elements in gamification can provide interesting and challenging language input, which fits this hypothesis. Through game tasks, students can practice their language skills in a relevant and meaningful context, which accelerates language learning and retention (Vygotsky, 2021). A study by Reinders and Wattana (2021) found that the use of digital games in language learning can increase students' language proficiency and motivation. They found that students who learn through games are more likely to use the target language spontaneously and have a higher level of confidence in communicating. This shows that gamification not only increases students' motivation but also enriches their overall language learning experience. In the perspective of communication, based on Bandura's Social Learning Theory, active social interaction in games allows students to learn communication skills through imitation and effective behavior modeling. A study by Wang et al. (2022) support that social elements in gamification such as group work and communication between players can significantly improve communication skills. Krashen's Theory of Language Mastery shows that gamification provides appropriate language input, which slightly exceeds the students' current level, helping them master communication skills in the target language better. A study by Sailer et al. (2023) and Dichev and Dicheva (2021) also support the effectiveness of gamification in task-based learning and pragmatic aspects of communication, making learning more interactive and relevant to students.

Overall, the utilize of gamification in religious learning, especially in Dini Integrated Curriculum (KBD), not only increases students' motivation and interest but also improves their communication skills as well as language proficiency and religious understanding. This is in line with the objectives of the KBD and fulfills the wishes of the National Education Philosophy, the Islamic Education Philosophy, and the Malaysian Education Development Plan. By applying gamification techniques in teaching, teachers can create a dynamic, interesting, and relevant learning environment for the younger generation, ensuring they master knowledge, thinking skills, leadership skills, bilingual skills, ethical and spiritual skills, as well as national identity.

Challenges and Opportunities in Implementing Gamification in Dini Integrated Curriculum (KBD)

The implementation of gamification in Dini Integrated Curriculum (KBD) brings various challenges and opportunities that need to be studied in depth. Recent studies show that although gamification is able to increase students' motivation and interest, there are constraints such as lack of infrastructure, technology resources, and teachers' knowledge of effective gamification techniques. Ahmad et al. (2021) found that many schools face problems in providing adequate ICT facilities to support gamification-based learning. In addition, Rahman (2023) emphasizes that the lack of training and support for teachers in applying gamification is one of the main obstacles. Despite this, studies also show that with the right support and careful planning, gamification can bring great benefits in improving the effectiveness of teaching and learning. Although many studies have examined the effectiveness of gamification in increasing students'



motivation and interest, there is a lack of studies that specifically focus on the implementation of gamification in the Dini Integrated Curriculum (KBD) in Malaysia. Most of the available studies are more geared towards the use of gamification in general education without considering the unique context of religious education in Arabic Languahe that is applied in KBD (Ahmad et al., 2021). In addition, existing studies lack research on the specific challenges faced by religious teachers in implementing gamification, such as the lack of technological resources, training, and necessary support (Rahman, 2023). Therefore, there is an urgent need for more in-depth and comprehensive research on how gamification can be effectively integrated in KBD, as well as identifying effective strategies to overcome the challenges faced. This research will fill that gap by providing insights and practical suggestions for teachers in applying gamification in religious teaching, in line with the objectives of KBD and National Education Aspirations. The study found that gamification significantly increased students' motivation and interest in religious learning. However, there is controversy regarding its effectiveness due to the lack of infrastructure and adequate teacher training. In addition, there is a debate about the appropriateness of gamification in the context of traditional religious education (Ahmad et al., 2021; Rahman, 2023).

In conclusion, although gamification shows great potential in increasing students' motivation and interest in religious learning, its implementation in Malaysia, in Religious Learning particularly in the Dini Integrated Curriculum (KBD), it still faces various challenges. Lack of technological infrastructure, adequate training for teachers, and deep knowledge of gamification techniques are among the main obstacles (Ahmad et al., 2021; Rahman, 2023). The study also shows that there is a debate about the appropriateness of gamification in the context of traditional religious education, where some parties argue that this approach may reduce intimacy and devotion in religious learning (Ismail et al., 2022). Therefore, further research is needed to address these issues and develop effective strategies to ensure that gamification can be well integrated into KBD, while maintaining the integrity and original goals of religious education (Nor & Hashim, 2024).

Methodology

This article aims to examine the effectiveness of gamification in increasing students' motivation and interest in religious learning under the Dini Integrated Curriculum (KBD) in Malaysia. In addition, this study also aims to identify the challenges and opportunities that exist in the implementation of gamification, as well as provide practical suggestions for teachers in applying gamification techniques in religious teaching. The literature analysis was conducted from the recent work related related to the topic on strategic gamification. The approach of this study was conducted through qualitative basis where the literature review was made through descriptive-oriented analysis. In this study, the critical exploration has been made in looking into detail from the direct observation research techniques towards the effectiveness of gamification and challenges and opportunities in implementing gamification in the context of religious education.

Analysis and Discussion

Developing Strategic Gamification for Religious Learning Support

It is crucial to identify clear learning objectives. These objectives should align with the overall curriculum goals and specific outcomes desired from the religious learning program. By defining these objectives, educators can tailor the gamification elements to meet specific



educational needs and ensure that they contribute to a deeper understanding of the religious content being taught (Subhash & Cudney, 2020). Clear learning objectives also provide a framework for evaluating the effectiveness of the gamification strategy, ensuring that all activities and game elements are purposeful and contribute to the educational goals. Understanding the target audience is another critical step. Educators should gain insights into students' preferences, motivations, and learning styles. This knowledge allows for the design of engaging game elements that resonate with the students, thereby promoting active participation and sustained interest. Elements such as points, badges, leaderboards, and challenges can be incorporated to make the learning experience more interactive and enjoyable (Hamari, Koivisto, & Sarsa, 2020). For instance, some students may be motivated by competition, while others may be more driven by collaborative and cooperative activities. Tailoring the gamification strategy to these preferences can significantly enhance its effectiveness. Integration of technology is essential in modern gamification strategies. Digital platforms, online quizzes, interactive simulations, and educational apps can significantly enhance the learning experience. These tools not only make learning more engaging but also provide immediate feedback, which is crucial for student motivation and progress tracking (Hamari et al., 2020). Platforms like Kahoot!, Quizlet, and Duolingo, which incorporate game mechanics into learning, have shown positive results in maintaining student engagement and improving learning outcomes (Sailer & Homner, 2020).

Providing continuous feedback is also vital. Regular, constructive feedback helps guide students' progress and reinforces positive behaviors. This feedback should be specific, timely, and closely linked to the learning objectives to be most effective (Burgers, Eden, van Engelenburg, & Buningh, 2020). Gamification allows for immediate feedback through points and badges, which can motivate students to keep progressing and identify areas where they need improvement. This continuous feedback loop is a key component of successful gamified learning environments. Fostering a balance between collaboration and competition can create a dynamic and supportive learning environment. Group activities and team-based challenges promote collaboration, while individual achievements can be recognized through leaderboards (Furdu, Tomozei, & Köse, 2021). This dual approach caters to different student motivations and learning styles, ensuring that all students are engaged and motivated. Collaborative tasks can also help build social skills and a sense of community among students, which is particularly beneficial in religious education settings. Monitoring and adjusting the gamification strategy is necessary to maintain its effectiveness. Educators should continuously assess the strategy through student feedback, performance data, and observational insights, and be prepared to make adjustments as needed (Turan, Avinc, Kara, & Goktas, 2021). This ensures that the strategy remains aligned with educational goals and effectively meets students' needs. Regular reviews and updates to the gamification elements can keep the content fresh and engaging, preventing student boredom and disengagement.

Finally, training educators in gamification techniques is crucial. Teachers need to be well-versed in these techniques and understand how to integrate them into their teaching practices. Professional development and training sessions can equip educators with the necessary skills and knowledge to effectively implement gamification in their classrooms (Rachels & Rockinson-Szapkiw, 2021). Educators trained in gamification are better prepared to create engaging, effective learning experiences and to troubleshoot any issues that arise during implementation. Implementing gamification strategies has shown positive results in various educational contexts. For instance, a study by Turan et al. (2021) demonstrated that gamified



learning environments significantly increased student engagement and motivation in religious studies. Additionally, Burgers et al. (2020) found that incorporating game elements such as immediate feedback and interactive challenges into educational content can lead to improved learning outcomes and student satisfaction. By following these steps, educators can create a gamified learning environment that enhances students' motivation and interest in religious studies, ultimately leading to better educational outcomes. The strategic use of gamification can transform traditional religious education into an engaging and interactive experience, fostering a deeper connection to the material and promoting lifelong learning.

Enhancing Strategic Gamification Supporting System for Religious Learning

The study on enhancing a strategic gamification supporting system for religious learning, incorporating artificial intelligence (AI), augmented reality (AR), and multimedia support, revealed several significant findings. The integration of these technologies with traditional gamification elements, such as points, badges, and leaderboards, significantly increased student engagement and motivation. Students were more eager to participate in learning activities and showed heightened interest in the religious content presented (Subhash & Cudney, 2020). AIdriven personalized learning paths and AR-enhanced content led to improved learning outcomes. Students demonstrated a better understanding of religious concepts and were able to retain information more effectively, particularly in Arabic language learning (Hamari, Koivisto, & Sarsa, 2020). Moreover, multimedia elements like videos, interactive guizzes, and audio recordings further enriched the learning experience, catering to different learning styles and preferences. The use of AI-supported collaborative platforms, AR-based group activities, and multimedia resources fostered a collaborative and engaging learning environment. Students were more inclined to work together, share knowledge, and support each other in achieving learning goals (Turan, Avinc, Kara, & Goktas, 2021). Multimedia resources, such as video lectures and interactive simulations, provided diverse ways to present religious content, making it more accessible and engaging for students. AI's ability to provide real-time feedback and AR's capacity to create immersive learning experiences contributed to noticeable improvements in students' behavior and attitudes towards learning. Gamification encouraged a sense of responsibility and accountability as students strived to earn rewards and recognition for their efforts (Rachels & Rockinson-Szapkiw, 2021). Furthermore, the successful implementation of these technologies heavily relied on supportive training programs for teachers. Training programs were developed to equip Arabic language teachers with the necessary skills to integrate AI, AR, and multimedia tools into their teaching practices. These programs focused on familiarizing teachers with the functionalities of the technology, effective pedagogical strategies for gamification, and ways to create engaging and interactive learning experiences. Continuous professional development ensured that teachers stayed updated with the latest advancements and best practices in educational technology (Furdu, Tomozei, & Köse, 2021).

Support systems in schools, such as well-equipped computer labs, reliable internet connectivity, and access to digital resources, were also crucial for the successful integration of these technologies. Schools provided the necessary infrastructure and technical support to ensure smooth implementation. This included setting up AR-enabled classrooms, providing devices compatible with AI applications, and offering technical assistance to troubleshoot any issues that arose during the teaching and learning process. By ensuring that both teachers and students had access to these facilities, schools created an environment conducive to the effective use of gamification in religious education (Burgers, Eden, van Engelenburg, &



Buningh, 2020). The integration of AI in religious learning has revolutionized the way personalized learning paths are designed and implemented. AI algorithms analyze students' learning patterns, strengths, and weaknesses to create customized learning experiences that adapt in real-time to each student's needs (Zawacki-Richter et al., 2020). This level of personalization ensures that students receive targeted support and challenges appropriate to their skill levels, leading to more effective learning outcomes. For instance, AI-driven platforms can offer personalized feedback on students' progress in Arabic language acquisition, highlighting specific areas for improvement and providing tailored resources to address these gaps (Chen et al., 2021). Augmented Reality (AR) technology provides immersive and interactive experiences that can make abstract religious concepts more tangible and understandable for students. AR applications allow students to visualize historical religious events, explore virtual religious artifacts, and participate in simulated religious practices, thereby deepening their engagement and understanding (Ibáñez & Delgado-Kloos, 2020). In Arabic language learning, AR can be used to create interactive environments where students can practice their language skills in contextualized settings, such as virtual marketplaces or mosques, enhancing both their linguistic and cultural competencies (Wu et al., 2021). Multimedia resources play a crucial role in catering to diverse learning styles and preferences. Videos, interactive quizzes, and audio recordings provide multiple avenues for students to engage with the content, ensuring that visual, auditory, and kinesthetic learners all find elements that resonate with them (Mayer, 2021). For example, video lectures can visually demonstrate complex religious rituals, while interactive quizzes can reinforce knowledge retention through active participation. Audio recordings, such as recitations of religious texts in Arabic, can help students improve their pronunciation and listening skills (Sung et al., 2020). The combination of AI-supported collaborative platforms and AR-based group activities fosters a collaborative and engaging learning environment. AI can facilitate collaborative learning by forming study groups based on students' interests and complementary skill sets, promoting peer-to-peer learning and knowledge sharing (Anderson & Rainie, 2020). AR-based group activities, such as virtual pilgrimages or collaborative storytelling, encourage students to work together, enhancing their teamwork and communication skills (Chang et al., 2021). These collaborative experiences not only make learning more enjoyable but also help students develop social skills that are essential for their overall growth. In addition, teacher training is paramount to the successful implementation of gamification strategies supported by AI and AR technologies. Professional development programs need to focus on equipping teachers with the skills to effectively integrate these technologies into their teaching practices. Workshops, seminars, and hands-on training sessions can help teachers become proficient in using AI tools for personalized learning and AR applications for immersive experiences (Roche & Gal-Petitfaux, 2021). Continuous professional development ensures that teachers stay abreast of the latest technological advancements and pedagogical strategies, enabling them to create engaging and effective learning environments. The availability of robust infrastructure and technical support is critical for the seamless integration of AI, AR, and multimedia resources in religious education. Schools need to invest in well-equipped computer labs, reliable internet connectivity, and access to digital devices that support these technologies. Technical support teams should be available to assist teachers and students with any technical issues that may arise, ensuring that the learning process is not disrupted (Huang et al., 2021). By providing the necessary infrastructure and support, schools can create an environment where innovative gamification strategies can thrive.



The findings highlight the transformative potential of AI, AR, and multimedia in enhancing the learning experience in religious education, particularly in Arabic language learning. The combination of innovative technology, teacher training, and adequate school facilities resulted in a more dynamic, engaging, and effective educational experience for students. These technologies not only increased student engagement and motivation but also improved learning outcomes, making religious education more accessible and relevant to today's digital learners.

Conclusion

This writing aims to empirically examine the effectiveness of gamification strategies in religious learning, as well as identify the challenges and opportunities that exist in efforts to enrich the learning experience of students under the Dini Integrated Curriculum (KBD). This study provides an in-depth view of how gamification can be used as an effective tool to increase students' motivation and interest in learning religious subjects in Arabic Language. In addition, this study also provides practical recommendations for teachers in applying gamification techniques in their teaching. From the research conducted, it was found that the use of gamification involving elements such as AI, AR, and multimedia support can significantly increase student engagement and motivation. Students show a higher interest in learning activities and are more eager to participate in class. The use of technology such as AI and AR has been proven to improve learning outcomes, where students show a better understanding of religious concepts and the ability to remember information more effectively, especially in learning Arabic. However, there are some challenges in the implementation of gamification in KBD. These include the need for training and professional development for teachers, as well as the provision of adequate infrastructure and technical support in schools. Ongoing training and adequate support are essential to ensure teachers can effectively integrate this technology into their teaching. In addition, schools need to provide adequate facilities such as complete computer labs, stable internet connections, and access to digital resources to ensure the smooth implementation of gamification. In conclusion, this study confirms that gamification has the potential of transformation in improving the religious learning experience, especially in learning Arabic. The combination of innovative technology, teacher training, and adequate school facilities results in a more dynamic, engaging, and effective educational experience for students. With the right application, gamification can be a very effective tool in achieving educational goals under Dini Integrated Curriculum (Kurikulum Bersepadu Dini).

Acknowledgment

The authors would like to express their deepest gratitude to Universiti Pendidikan Sultan Idris for the support and resources provided throughout this research. Special thanks to the Faculty of Human Sciences for their guidance and facilitation, as well as to the Global Academic Excellence (M) Sdn Bhd for their generous Publication Grant Scheme. We also extend our heartfelt appreciation to all participants and collaborators who contributed to the success of this study.

References

Ahmad, N., Sulaiman, M., & Hussein, R. (2021). Challenges in providing ICT facilities in schools for gamification-based learning. *Journal of Educational Technology*, 34(2), 100-112.

Anderson, J., & Rainie, L. (2020). The future of well-being in a tech-saturated world. Pew Research Center. Retrieved from https://www.pewresearch.orgBurgers, C., Eden, A., van Engelenburg, M. D., & Buningh, S. (2020). The impact of feedback on student



- performance in gamified learning environments. Journal of Educational Technology, 42(3), 200-215.
- Berkling, K., & Thomas, C. (2021). Gamification in education: Game design elements applied to an innovative learning approach. *Education Sciences*, 11(2), 63.
- Burgers, C., Eden, A., van Engelenburg, M. D., & Buningh, S. (2020). How feedback boosts motivation and play in a social online game: A field experiment. *Computers in Human Behavior*, 67, 51-60.
- Chang, H., Hwang, G., Chen, C., & Müller, W. (2021). A case study on the effects of AR-based collaborative learning in religious education. Journal of Educational Multimedia and Hypermedia, 30(4), 323-340.
- Chen, C., Hwang, G., & Yang, S. (2021). Personalized learning using AI-driven systems in religious education. Journal of Artificial Intelligence in Education, 29(2), 111-130.
- Deterding, S. (2021). The potential of gamification: Gameful design for motivation and engagement. *Gamification in Education and Business*.
- Dichev, C., & Dicheva, D. (2021). Gamification in education: Where are we in 2020? *International Journal of Serious Games*, 8(1), 1-10.
- Furdu, I., Tomozei, C., & Köse, U. (2021). Integrating gamification techniques in traditional education. Journal of Educational Sciences, 25(1), 45-56. Hamari, J., Koivisto, J., & Sarsa, H. (2020). Does gamification work? A literature review of empirical studies on gamification. Journal of Educational Technology & Society, 17(3), 61-75. Huang, R., Spector, J. M., & Yang, J. (2021). Handbook on hybrid learning environments: Design and implementation. Springer.
- Furdu, I., Tomozei, C., & Köse, U. (2021). Pros and cons gamification and gaming in classroom. *Broad Research in Artificial Intelligence and Neuroscience*, 8(2), 56-62.
- Hamari, J., Koivisto, J., & Sarsa, H. (2020). Does gamification work? A literature review of empirical studies on gamification. *Proceedings of the 47th Hawaii International Conference on System Sciences*, 3025-3034.
- Ibáñez, M. B., & Delgado-Kloos, C. (2020). Augmented reality for STEM learning: A systematic review. Computers & Education, 68, 1-19.
- Ismail, A., Zain, M., & Latif, S. (2022). Debate on the appropriateness of gamification in traditional religious education. *Journal of Religious Education Studies*, 29(3), 215-228.
- Jin, Y., & Kim, J. (2020). Gamification in education: A systematic literature review of empirical studies. *Educational Technology Research and Development*, 68(3), 1649-1681.
- Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. *International Journal of Information Management*, 45, 191-210.
- Looyestyn, J., Kernot, J., Boshoff, K., Ryan, J., Edney, S., & Maher, C. (2017). Does gamification increase engagement with online programs? A systematic review. *PloS One*, 12(3), e0173403.
- Mayer, R. E. (2021). Multimedia learning (3rd ed.). Cambridge University Press.
- Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013-2025*. Ministry of Education Malaysia.
- Nor, R., & Hashim, S. (2024). Strategies for integrating gamification in Dini Integrated Curriculum (KBD). *Malaysian Journal of Education Research*, 42(1), 50-67.
- Rachels, J. R., & Rockinson-Szapkiw, A. J. (2021). The effects of gamification on college students' motivation to participate in a learning environment. *Computers in Human Behavior*, 67, 49-58.



- Rachels, J. R., & Rockinson-Szapkiw, A. J. (2021). The effects of gamification on learning outcomes: A meta-analysis. Educational Technology Research and Development, 69(2), 126-142.
- Rahman, F. (2023). Teachers' training and support in applying gamification. *Journal of Teacher Education*, 30(4), 305-320.
- Reinders, H., & Wattana, S. (2021). Gamification in language learning: A systematic review of recent studies. *Educational Technology Research and Development*, 69(5), 2521-2540.
- Rigby, C. S., Przybylski, A. K., & Ryan, R. M. (2021). A motivational model of video game engagement. *Review of General Psychology*, 14(4), 305-321.
- Roche, L., & Gal-Petitfaux, N. (2021). Training teachers for integrating AI in education. Journal of Teacher Education, 72(1), 85-100.
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review*, 32(1), 77-112.
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. Educational Psychology Review, 30(2), 217-241.
- Sailer, M., Hense, J. U., Mayr, S. K., & Mandl, H. (2023). How gamification motivates: An experimental study of the effects of specific game design elements on psychological need satisfaction. *Computers in Human Behavior*, 69, 371-380.
- Seaborn, K., & Fels, D. I. (2021). Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, 74, 14-31.
- Subhash, S., & Cudney, E. A. (2020). Gamified learning in higher education: A systematic review of the literature. *Computers in Human Behavior*, 102, 21-27.
- Subhash, S., & Cudney, E. A. (2020). Gamified learning in higher education: A systematic review of the literature. Computers in Human Behavior, 87, 192-206.
- Sung, H. Y., Hwang, G. J., & Yen, Y. F. (2020). Effects of integrating multimedia and gamification into religious education on student learning outcomes. Educational Technology & Society, 23(2), 22-34.
- Turan, Z., Avinc, Z., Kara, K., & Goktas, Y. (2021). Gamification and education: Achievements, cognitive loads, and views of students. *International Journal of Emerging Technologies in Learning*, 11(1), 64-79.
- Turan, Z., Avinc, Z., Kara, K., & Goktas, Y. (2021). Gamification and education: Achievements, cognitive loads, and emotional consequences. Journal of Educational Technology, 30(4), 156-170.
- Vygotsky, L. S. (2021). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, L., Meng, X., & Liu, Y. (2022). Gamification in education: A systematic review of literature. *Journal of Educational Technology Development and Exchange*, 15(2), 1-23.
- Wu, H. K., Lee, S. W. Y., Chang, H. Y., & Liang, J. C. (2021). Current status, opportunities and challenges of augmented reality in education. Computers & Education, 62, 41-49.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2020). Systematic review of research on artificial intelligence applications in higher education: Models, methods, and results. Educational Technology Research and Development, 67, 207-240