

Evaluating SHIFT: A Game-Based Learning Application for Teaching the Afterlife in Islamic Education

Muhammad Ikram Abu Hassan^{1*}, and Tunku Badariah Tunku Ahmad¹

¹*Department of Curriculum and Instruction,
Kulliyyah of Education,
International Islamic University Malaysia, Kuala Lumpur, Malaysia*

*Corresponding author: ikramhassan@iium.edu.my

Received: 29th January 2026; Accepted: 30th January 2026; Published online: 31st January 2026

Abstract

This is a pilot study that examines the effect of SHIFT (Stairway to Heaven in Islamic Faith), a game-based learning application, on university students' conceptual understanding of the afterlife, a core component of Islamic faith taught in Islamic Education (ISED). Belief in the hereafter is a fundamental concept in Islam but it is often conveyed through conventional instructional approaches that provide limited opportunities for active engagement and deep understanding. SHIFT was developed to address this gap by presenting the stages of life after death—from worldly life (*dunia*) to judgment and the hereafter—through interactive multimedia and formative questions aimed to instill students' understanding of the afterlife. The study employed a pre-experimental one-group pretest–posttest design involving 25 male undergraduate students from Year 1 to Year 4 at the International Islamic University Malaysia (IIUM). Students' conceptual understanding of the afterlife was measured using a 10-item self-developed open-ended test, with scoring reliability established through inter-rater correlation. Data were analyzed using a paired-samples *t*-test. Results revealed a statistically significant improvement in students' conceptual understanding following the intervention, with a large effect size (Cohen's *d* = 0.73). These findings provide preliminary evidence that game-based learning applications such as SHIFT can effectively support the teaching of abstract and profound concepts in Islamic Education at the university level.

Keywords: *Game-based learning, Islamic Education, the afterlife, student engagement, educational innovation*

INTRODUCTION

Students in the present age increasingly prefer technology-driven learning environments that offer interactivity and flexibility, rather than conventional instructional methods (Valtonen et al., 2020). This shift in learning preferences is driven by technological advancement and innovation, which have redefined students' expectations for engaging, interactive, and meaningful learning experiences. The inevitable change poses a significant challenge for the teaching of Islamic Education (ISED), which is often delivered through traditional, lecture-based methods and rigorous routines devoid of meaningful student understanding (Jasmi, 2011; Muhammad Talhah et al., 2024). As a result, students frequently experience boredom and disengagement during ISED lessons, as traditional classroom environments fail to compete with the entertainment and interactivity they encounter outside of school (Hafiz et al., 2020). This lack of engagement also contributes to limited comprehension, particularly of abstract or complex religious concepts such as the afterlife. Hence, there is a clear need for ISED teachers to adopt more innovative and interactive pedagogical approaches that can capture students' attention and promote meaningful learning experiences (Hamzah & Harun, 2024; JAPIM & UPM, 1994).

Research indicates that ISED classrooms frequently rely on monotonous and conservative instructional practices, emphasizing teacher-centered methods such as lectures, rote memorization, recitation of religious texts, teacher-led discussions, and written examinations (Ismail & Shazwan, 2025; Jasmi, 2011; Muhammad Talhah et al., 2024; Safira et al., 2025). Lessons are often textbook-centered, and many educators lack the critical competencies required to present the subject in an engaging or interactive manner (Department of Islamic Education, 1993). While these approaches maintain doctrinal accuracy and discipline, they frequently reduce student engagement, critical reflection, and meaningful understanding, particularly among present-day learners who are accustomed to interactive, technology-enhanced environments (Hafiz et al., 2020).

The consequences are particularly evident in the teaching of profound and abstract concepts, such as belief in the afterlife, life in the *barzakh* (realm of the grave), heaven, hell, and principles like *taqwa* (تقوا), *itqan* (إتقان), and *muraqabah* (مراقبة). Many ISED teachers and scholars may feel that these topics are too sacred to be taught in a playful or gamified manner, believing that the seriousness of the content demands solemnity and rigor. While traditional teacher-centered approaches preserve the sanctity of the subject, they can make lessons repetitive and disengaging, limiting students' ability to connect religious concepts to real-life experiences.

Evidence from education research highlights the potential for game-based learning to address these challenges. In a Maltese higher education survey of 271 university students, 71.6% supported the idea of turning lectures into a fun game, expecting higher involvement and competitiveness in gamified tasks (Pinto et al., 2022). At lower educational levels, 94.25% of school pupils reported enjoying game-based learning, and over 95% wanted more subject-aligned educational games (Rasyid et al., 2025). Across both school and university contexts, students generally find well-designed, course-aligned games more enjoyable, engaging, and motivating than conventional approaches.

At the university level, Islamic faith courses (e.g., Aqidah Islamiyyah) cover critical topics such as the afterlife (الآخرة) and individual accountability in the hereafter for students majoring in Islamic Education. These students will later graduate to teach the subject in schools, making a deep understanding of these topics essential for their effectiveness as ISED educators. Considering the

strong interest of contemporary students in technology and interactive learning (Nadeem et al., 2023), this study introduces SHIFT (Stairway to Heaven in Islamic Faith), a game-based learning application designed to enhance students' comprehension of the afterlife. The application guides learners through the stages of life after death, from worldly life (*dunia*) to the realm of *barzakh* (برزخ), and finally to heaven or hell, aligning with course learning outcomes while maintaining the seriousness of the content. Mastery of this knowledge is fundamental for every Muslim student, not just ISED educators, from primary school through university.

By integrating gamification into ISED, SHIFT aims to transform conventional teaching practices, increasing engagement, comprehension, and motivation. This approach addresses the persistent challenges in ISED pedagogy—lack of creativity, reliance on traditional methods, and limited student interaction—while preserving doctrinal accuracy and ethical rigor. Overall, game-based learning offers a promising solution for modernizing Islamic Education, making it more relevant and impactful for 21st-century learners.

Despite the potential benefits of games, there remains a gap in the widespread adoption and rigorous evaluation of game-based learning applications within Islamic Education. The current problem is not only the entrenched reliance on traditional methods (Hidayah et al., 2022; Prayogi, 2024), but also the lack of systematic efforts to innovate instructional practices and utilize technology-driven solutions. Addressing these challenges is crucial for aligning ISED pedagogy with 21st-century educational standards, fostering critical thinking skills, and ensuring that religious education remains relevant, engaging, and impactful for contemporary students.

RESEARCH OBJECTIVE AND QUESTION

The main objective of this pilot study is to examine the effect of SHIFT, a game-based learning application developed to teach the serious content of the afterlife and its stages, on university students' understanding of the afterlife. In this context, understanding refers to students' comprehension of the concepts presented. By achieving this objective, the study aims to demonstrate that games can be effectively used to educate students on profound topics and concepts in Islamic Education. The research question guiding the study is: "*What is the effect of SHIFT, a game-based learning application, on undergraduate students' understanding of the afterlife?*"

LITERATURE REVIEW

Game-Based Learning in Islamic Education

The integration of technology into educational practices has gained substantial traction in recent years, particularly in the context of enhancing student engagement and learning outcomes. Game-based learning, which employs gaming principles and mechanics in educational settings, has been shown to foster motivation, participation, and deeper understanding across various disciplines (Gee, 2003; Khaldi et al., 2023; Prensky, 2007). In the realm of religious education, however, the adoption of such innovative strategies has lagged behind, with many institutions still relying on traditional, teacher-centered methods that may not fully address the diverse learning needs of modern students (Hakim & Masumah, 2025).

Several studies have highlighted the limitations of conventional teaching approaches in Islamic Education (ISED), noting that methods such as rote memorization and lecture-based instruction often fail to stimulate critical thinking or sustained interest among learners (Hidayah et al., 2022; Ismail et al., 2020). These approaches, while effective in transmitting factual knowledge, may not adequately engage students or facilitate meaningful understanding, especially regarding abstract or complex concepts like the afterlife. As a result, there is a growing call for the incorporation of more interactive and student-centered pedagogies in ISED to improve both comprehension and retention.

Gamification and digital learning tools have demonstrated significant potential in addressing these challenges. According to Hamari et al. (2016), gamified learning environments can increase students' intrinsic motivation and promote active participation, leading to more effective knowledge acquisition. In the context of Islamic Education, research by Ab Halim et al. (2018) found that digital games could enhance students' understanding of religious concepts by providing immersive and contextually relevant learning experiences. These findings support the notion that game-based applications, like SHIFT, may serve as valuable supplements or alternatives to traditional teaching methods, particularly when aiming to convey complex and profound theological topics such as the afterlife.

Moreover, the application of Bloom's revised taxonomy in the development of educational games ensures that learning objectives encompass a range of cognitive skills, from basic recall to higher-order thinking (Anderson & Krathwohl, 2001). This alignment is crucial in religious education, where students are expected not only to remember doctrinal facts but also to analyze, evaluate, and apply spiritual teachings in real-life contexts. The use of validated assessment tools and expert-reviewed content, as described in the present study, further strengthens the credibility and effectiveness of such interventions.

In summary, the literature underscores the urgent need for innovation in Islamic Education pedagogy, particularly through the adoption of game-based learning tools. While research in this area remains limited, existing studies suggest that such approaches can enhance engagement, deepen understanding, and make learning more meaningful for contemporary students. The development and implementation of SHIFT, therefore, represent a timely response to these pedagogical challenges, offering new pathways for improving the teaching and learning of the afterlife in Islamic faith.

Theoretical Underpinning of SHIFT

SHIFT is a digital game-based learning application designed as part of a broader strategy to address the limitations of traditional teaching methods in Islamic Education. By integrating chunked texts, animations, conversational delivery style and formative assessments, SHIFT transforms abstract and complex concepts—such as the stages of the afterlife—into engaging, manageable learning experiences. This approach enhances student motivation, supports active learning, and fosters deeper understanding, overcoming the monotony and low engagement often associated with lecture-based, teacher-centered instruction.

The design of SHIFT can be explained through the combined lens of Cognitive Load Theory, Multimedia Learning Theory, and Experiential Learning Theory. SHIFT incorporates features that align with these theories, such as presenting information in short, chunked segments

accompanied by animations and images. According to Cognitive Load Theory (Sweller, 1988), chunking reduces cognitive overload and enables learners to process complex, abstract concepts—such as the stages of the afterlife—more effectively, allowing content to be learned in manageable doses.

By integrating text, visuals, and animations, SHIFT also reflects Multimedia Learning Theory (Mayer, 2001), which posits that learners understand information better when it is presented through both verbal and visual channels. For example, the landing page features graphic organizers with clickable blocks that guide students to the chunked content on each stage of the afterlife.

Experiential Learning Theory (Kolb, 1984) further explains how SHIFT promotes deep understanding by enabling students to actively engage with content, reflect on formative assessment questions, and conceptually experience the stages of the afterlife, completing the cycle of experience, reflection, and application. Together, these theories demonstrate how SHIFT works to reduce cognitive overload, enhance dual-channel processing, and promote active experiential engagement, making it particularly suitable for teaching abstract theological concepts leading to conceptual understanding of the afterlife.

Effects of Digital Game-Based Learning on Students' Cognitive Outcomes

The effects of game-based learning applications can be better understood by looking at the results of meta-analyses. Overall, the positive impact of game-based learning applications are well supported by meta-analytic evidence across diverse educational contexts. Non-digital game-based learning has been shown to produce very large effects on academic achievement (Hedges $g \approx 1.70$) compared with traditional instruction across subjects and grade levels (Karakoç et al., 2020). In science education, 41 studies reported substantial benefits ($g = 0.71$) of game-based learning over conventional methods (Lei et al., 2022).

Digital game-based learning (DGBL) also demonstrates robust positive impacts. A school-focused meta-analysis of studies from 2015 to 2020 found a medium overall learning effect ($g = 0.54$) and medium-to-large cognitive gains ($g = 0.67$) compared with traditional instruction (Barz et al., 2023). In STEM, a meta-analysis of 33 studies ($N = 3,894$) reported a moderate positive effect on achievement ($ES = 0.67$), with DGBL outperforming both conventional teaching and other multimedia approaches (Wang et al., 2022). DGBL has also been shown to enhance problem-solving ability ($g = 0.65$), particularly when paired with explicit instructional strategies (Chai et al., 2025). Longitudinal studies with first graders and early childhood learners indicate that digital games improve number-line estimation, reading competence, and mathematics outcomes, supporting stronger retention, critical thinking, and rapid decision-making (Vanbecelaere et al., 2020).

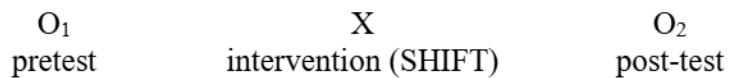
In the context of Islamic Education, digital games have demonstrated significant positive effects on learning outcomes. For example, the gamified AI application, *Marbel Shalat*, in primary Islamic Religious Education increased mastery from 41.67% to 91.61%, yielding a large and statistically significant gain ($t = 9.83$) (Margareta et al., 2025). Similarly, mobile digital games for Arabic, including Qur'anic and general language learning, improved vocabulary acquisition and overall language achievement at both school and university levels (Ghani et al., 2022; Roseandree

et al., 2024). Collectively, these findings support the use of SHIFT as an effective game-based learning intervention in the present study.

METHODOLOGY

Research Design

This study employs a pre-experimental design using a one-group pretest–posttest approach. The intervention is **SHIFT**, a game-based application developed to teach the concept of the afterlife, in which Muslims are believed to journey toward heaven or hell through five stages: resurrection (*kebangkitan*), *mahsyar* (the gathering place on the Day of Judgment), *syafaat* (intercession), *hisab* (judgment) and *suhuf* (the record books of deeds). Within the application, students interact with the content by clicking on buttons to read explanations of each stage and by responding to formative questions related to the material. The subjects consisted of a class of 30 male undergraduate students majoring in multiple fields. A pretest was administered prior to the SHIFT intervention to assess students' initial understanding of the concept of the afterlife. Following the intervention, the same instrument was administered as a posttest to measure changes in students' understanding as a result of SHIFT. The schematic diagram of the study's research design is presented in the figure below.



As a pilot study, a one-group pretest–posttest design was deemed appropriate to establish preliminary effectiveness before conducting larger-scale experimental research.

Subjects of the Study

The study involved 25 male students from Year 1 to Year 4 at the International Islamic University Malaysia (IIUM), representing a diverse range of faculties. Their prior knowledge of Islamic Education ranged from intermediate to advanced, and their ages were between 20 and 24 years. The subjects were carefully selected to ensure a broad cross-section of academic backgrounds, including but not limited to faculties such as Islamic Revealed Knowledge and Human Sciences, Engineering, Economics and Management Sciences, and Information and Communication Technology. By involving students from various disciplines, the research aimed to capture a wide spectrum of perspectives and learning experiences related to Islamic Education and the understanding of the afterlife. This diversity also enables the study to assess the effectiveness of the SHIFT application across different educational contexts, highlighting its potential adaptability and impact in enhancing engagement and comprehension among university students with varied academic interests.

Intervention

The intervention is a game-based learning application called *Stairway to Heaven in Islamic Faith* (SHIFT), designed to teach the five stages that Muslims will undergo in the afterlife before reaching their final destination, either heaven or hell. The application was developed using Genially for Education and integrates explanatory texts with animations that correspond to each

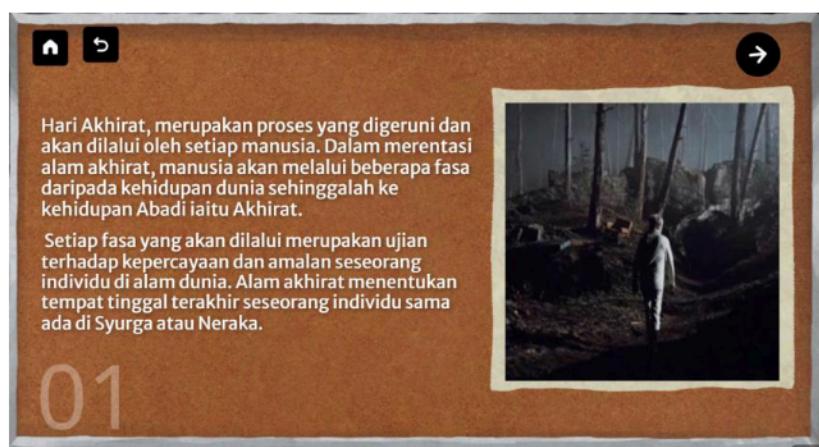
stage of the afterlife. In terms of design, SHIFT combines short text segments (chunked information), animations, images, and a conversational content delivery style, allowing students to process information in manageable chunks while actively interacting with the content. In addition, SHIFT incorporates embedded formative assessments to reinforce students' understanding of the content and support learning progression. The landing page of SHIFT is shown in Figure 1.

Figure 1
Landing Page of SHIFT



By clicking the forward arrow, students are guided through the five stages of the afterlife in the following sequence: resurrection (*kebangkitan*), *mahsyar* (the gathering place on the Day of Judgment), *syafaat* (intercession), *hisab* (judgment), and *suhuf* (the record books of deeds). Figure 2 illustrates the explanation of the afterlife stages in SHIFT, accompanied by corresponding animations.

Figure 2
Introduction to the Afterlife



The content of SHIFT also includes explanations grounded in selected verses of the Qur'an (Figure 3), along with embedded formative assessment questions designed to reinforce students' understanding (Figure 4).

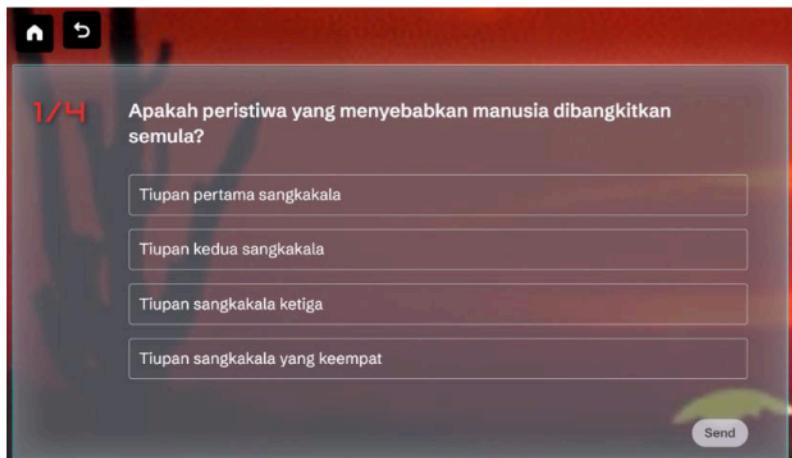
Figure 3

Qur'anic Explanations of the Afterlife



Figure 4

Formative Questions Embedded into SHIFT



As students progress through the application, they are introduced to increasingly detailed events of the afterlife, such as the sounding of the trumpet (*tiupan sangkakala*), the condition of human beings during resurrection, the first human to be resurrected, and the grand assembly or gathering (*perhimpunan*) (Figure 5). Students continue advancing through the stages until they have engaged with all the content related to the afterlife.

Figure 5
Further Details About the Afterlife Included in SHIFT



Research Instruments

Two instruments were used to measure students' grasp of the afterlife (i.e., their understanding of the concept): a self-developed subjective test and a scoring rubric. The subjective test, administered before and after the intervention, consisted of 10 open-ended questions with a total score of 50 marks. The test items were derived from the content of SHIFT and included questions such as, *"What happens after the second blow of the trumpet?"* and *"Why is hisab important in Islamic belief?"* The questions assessed both lower- and higher-order cognitive skills based on Bloom's revised taxonomy.

The test items were content-validated by an expert in Islamic Education, ensuring strong content validity, that is, alignment between the content of SHIFT and the assessment items. A scoring rubric (Figure 6) was also developed to evaluate students' responses and was validated by the same expert. The reliability of the test scoring was established through inter-rater coding, with agreement measured using the Pearson correlation coefficient.

Figure 6
Scoring Rubric

SCORING RUBRIC	
Belief in the Day of Judgment	
Subjective Questions (Total: 50 Marks)	
<p>1) The Second Blow of the Trumpet On the Day of Judgment, Israfil will blow the trumpet twice, marking two significant events for all creatures.</p> <p>a) What happens after the second blow of the trumpet? (2 marks) b) Why is this event considered significant in Islamic teachings? (3 marks)</p>	
<p>Model Answers:</p> <p>a) After the second blow, all creatures will be resurrected (1/2 mark) from their graves (1/2 mark) and brought back to life (1/2 mark) on the Plain of Mahsyar (1/2 mark) (Total = 2 marks)</p> <p>b) This event is significant because it signifies the beginning (1/2 mark) of the actual Judgment (1/2 mark), where people will be held accountable (1/2 mark) for their deeds (1/2 mark) and is a reminder of Allah's power (1/2 mark) over life and death (1/2 mark) (Total = 3 marks)</p>	

DATA COLLECTION

Data collection in this study comprises explanations regarding the experimental procedures (which explain how the experiment was carried out), measures taken to address the threat to internal validity, and the data gathering process that includes research approval, informed consent and access to the subjects.

Experimental Procedures

The experiment was conducted in three sequential stages over a single session. The steps are summarized in Figure 7.

Stage 1: Pretest (30 minutes)

The session began with the administration of a pretest consisting of a 10-question subjective test. The purpose of the pretest was to assess students' initial understanding and prior knowledge of the afterlife before exposure to the intervention. The results served as a baseline for comparison with post-intervention performance.

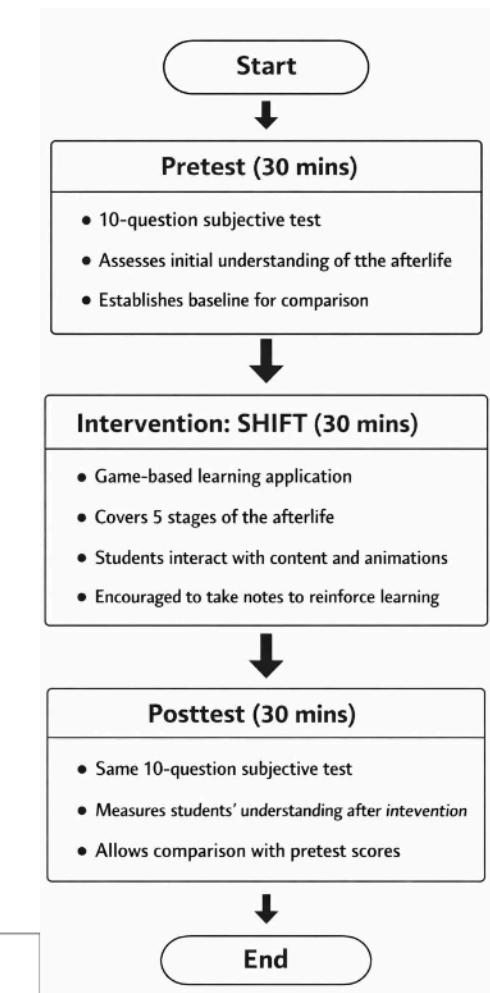
Stage 2: Intervention using SHIFT (30 minutes)

Following the pretest, students were introduced to SHIFT, the game-based learning application used as the treatment in this study. Students interacted with the application, which included two games designed to teach the stages of life after death. At the time of the study, only the first game—covering the initial five stages of the afterlife—was fully developed and implemented, while the second game was still under development and therefore not included in the intervention. During this stage, students were encouraged to take notes to support comprehension and reinforce learning and they could repeat the game as many times as the time allowed.

Stage 3: Posttest (30 minutes)

After completing the intervention, students sat for the posttest, which consisted of the same 10 subjective questions administered in the pretest. The posttest was used to measure changes in students' understanding of the afterlife following the use of SHIFT, allowing for a direct comparison of pre- and post-intervention scores.

Figure 7
Experimental Procedures



Threats to Internal Validity

To minimize threats to internal validity (i.e., the extent to which changes in students' understanding of the afterlife can be confidently attributed to SHIFT as the intervention, rather than to other extraneous or confounding factors), the pretest, SHIFT intervention, and posttest were conducted in quick succession within a single session, preventing students from accessing other learning sources and reducing history effects. The short, one-day design also limited maturation effects, meaning that students' understanding was unlikely to change naturally in such a brief period. Using the same validated test and scoring rubric for both pre- and posttests, along with inter-rater reliability, addressed testing and instrumentation concerns. Finally, the single-session format eliminated attrition, ensuring that all participants completed every stage of the study. These measures strengthen the likelihood that observed changes in students' understanding resulted from the SHIFT intervention.

Data Gathering Process

All subjects were recruited from various kulliyyahs at the International Islamic University Malaysia. Approval to conduct the pilot study was obtained from FS Human Development Sdn Bhd, a company that organizes training courses and provides services to university students, such as accommodation and transportation, as the participating students were recipients of the company's scholarships. The experiment was conducted at a learning space in the FS Human Development building, Taman Melawati, Kuala Lumpur. Written informed consent was obtained from all subjects prior to the exercise. The subjects were instructed not to discuss the content or their responses during the test-taking process in order to minimize threats to internal validity. Data collection took approximately one and a half hours, from the initial gathering and briefing of the subjects to the completion of the posttest.

DATA ANALYSIS

The pretest and posttest scripts were first graded according to the validated scoring rubric, and the resulting scores were entered into IBM SPSS Statistics Version 29 for analysis. Descriptive statistics, including means and standard deviations, were calculated for both pretest and posttest scores to summarize students' understanding before and after the intervention. Prior to conducting the paired-samples t-test, the assumptions of the test were examined. The difference scores (posttest minus pretest) were assessed for normality using the Shapiro–Wilk test and visual inspection of Q–Q plots, and no significant deviations from normality or extreme outliers were observed. Therefore, a paired-samples t-test was conducted to determine whether statistically significant differences existed between pretest and posttest scores, evaluating the effect of the SHIFT application on students' understanding of the afterlife. For any significant differences, Cohen's d was calculated to assess the magnitude of the effect, and the results were interpreted using Hattie's (2009) effect size barometer, in which a d value of 0.40 or higher is considered desirable. Hattie's barometer is contextual to educational interventions and was used in this study as a guideline for educational impact, not a strict statistical rule.

RESULTS

This section reports on the effect of SHIFT on students' grasp of the afterlife. The paired-samples t-test conducted on the pretest and posttest data revealed a statistically significant improvement in students' understanding of the afterlife, $t(24) = 2.588, p = .008$. The mean scores increased notably from the pretest ($M = 5.42, SD = 5.42$) to the posttest ($M = 14.68, SD = 7.15$). The calculated effect size, Cohen's $d = .73$, indicates a desirable practical significance, suggesting that the SHIFT application had a meaningful impact on students' learning outcomes. Figure 8 shows a line graph illustrating students' learning gain from the SHIFT intervention.

Figure 8
Subjects' Score Improvement Before and After SHIFT



The line graph illustrates the change in mean scores on the subjects' understanding of the afterlife before and after using the SHIFT application, which increased by 3.96 points and was statistically significant and practically important (Cohen's $d = .73$). The line graph in Figure 8 clearly demonstrates the effectiveness of the SHIFT application in improving students' grasp of the afterlife.

Reliability of the Test Scores

Copies of the subjects' posttest answers to the 10 questions were prepared, and a second set was submitted to an independent rater. The posttest responses were graded independently by two experts in Islamic Education to establish an inter-rater correlation index, which assessed the level of agreement between the raters. This procedure ensured consistency in grading and minimized subjective bias. Both raters followed the established scoring rubric, producing two sets of posttest scores. To evaluate the reliability of the scoring, the scores from both raters were entered into SPSS for correlation analysis. The analysis yielded a correlation coefficient of $r = .87$, indicating strong agreement between the raters and confirming the reliability of the scoring rubric.

DISCUSSION

The substantial increase in posttest mean scores following the use of the SHIFT application, with a large effect size (Cohen's $d = 0.73$), indicates a significant enhancement in students' comprehension of the targeted content. The magnitude of this impact aligns with findings from previous studies in general educational contexts (Barz et al., 2023; Chai et al., 2025; Wang et al., 2022) and corroborates results from studies more closely related to Islamic Education (Ghani et al., 2022; Margareta et al., 2025; Roseandree et al., 2024). Collectively, these results provide

sufficient evidence for the effectiveness of SHIFT as a game-based learning intervention for the teaching of Islamic Education content.

Beyond boosting student understanding, the SHIFT application addresses several longstanding challenges faced by Islamic Education teachers. Traditionally, educators encounter difficulties in engaging diverse learners, maintaining sustained attention, and conveying complex religious concepts in an accessible manner. SHIFT, with its interactive and game-based features, provides a dynamic platform that transforms abstract topics, such as the afterlife, into engaging learning experiences. This approach not only captures students' interest but also helps to concretize the learning of abstract concepts for Muslim students, supporting differentiated instruction, enabling teachers to meet varied learning needs within the classroom.

Moreover, SHIFT streamlines the assessment process by incorporating digital tools that facilitate objective and consistent evaluation, reducing the subjective bias often associated with manual grading. The platform's immediate feedback mechanisms also empower teachers to identify learning gaps promptly and tailor their instructional strategies accordingly. As a result, teachers can shift from traditional lecture-based methods to more student-centered, interactive pedagogies that emphasize active participation and critical thinking. These findings are consistent with previous research, such as Prayogi (2024), which highlights the effectiveness of video games in promoting engagement and learning in Islamic history, and Smith and Brown (2021), who advocate for innovative teaching strategies in higher education.

The comprehensive methodological approach—including robust statistical analyses and inter-rater reliability checks—adds credibility to these findings. Collectively, the evidence suggests that integrating game-based learning tools like SHIFT not only enhances student outcomes in Islamic Education but also equips teachers with innovative solutions to overcome instructional challenges, paving the way for more impactful and modern teaching practices.

LIMITATIONS AND FUTURE RESEARCH

As a pilot study, this research was designed to explore the feasibility and preliminary effectiveness of the SHIFT application—as well as the efficacy of the experimental procedures and reliability of the measures—rather than to produce generalizable findings. Accordingly, several limitations are acknowledged. The use of a one-group pretest–posttest design does not allow for strong causal claims and was intentionally selected to obtain initial evidence prior to larger-scale implementation. The small, homogeneous sample consisting solely of male undergraduate students from a single institution further reflects the exploratory nature of the study. The results from this male-only sample are not intended for generalizations to a broader and more diverse sample of university students. Future pilot studies should employ a quasi-experimental control-group design with more homogenous samples for more defensible results.

In addition, the short intervention duration was sufficient for assessing immediate learning gains but did not permit examination of long-term retention or transfer of learning. Finally, although the use of open-ended test items enabled assessment of higher-order conceptual understanding, such measures involve an element of subjectivity. This, however, was mitigated through the use of validated scoring rubric and high inter-rater reliability. Future research should employ more objective test formats such as MCQ.

Building on these preliminary findings, future research should extend this work through larger and more diverse samples, inclusion of female participants, longer intervention periods, and the use of experimental or quasi-experimental designs. Such studies would allow for stronger causal inferences and broader conclusions regarding the effectiveness of game-based learning applications like SHIFT in Islamic Education.

RECOMMENDATIONS FOR CLASSROOM INSTRUCTION

Islamic Studies educators should more comprehensively integrate emerging technologies into their pedagogical practice. A balanced instructional model is warranted, in which traditional, teacher-centered approaches are retained for practical, psychomotor domains—such as *tayammum* and *salat*—that require direct demonstration and guided, hands-on practice. At the same time, disruptive technologies, including artificial intelligence, virtual reality, and interactive digital games, can be leveraged to teach abstract or conceptually complex topics—such as the Isra' and Mi'raj and eschatological themes—by enhancing visualization, inquiry, and reflective engagement. The use of Google Earth, for example, can enhance the teaching of the Prophet's (SAW) *seerah*. This blended approach combining traditional teaching and technology integration seeks to optimize learning outcomes across cognitive, psychomotor, and affective domains while preserving theological integrity and pedagogical rigor in Islamic Education. It is also a means of making the subject relevant and interesting for the 21st century classroom.

CONCLUSION

In conclusion, the SHIFT application marks a noteworthy advancement in Islamic Studies Education (ISED) by introducing a dynamic and interactive method for teaching complex concepts such as the afterlife. The results of this study demonstrate that integrating game-based learning tools like SHIFT not only increases student engagement but also significantly improves their comprehension and retention of the material. These outcomes highlight the potential for such innovative approaches to transform traditional educational practices and align with the evolving demands of 21st-century pedagogy. By leveraging technology and interactive strategies, educators can foster deeper understanding and sustained interest among students, paving the way for more effective and meaningful learning experiences in Islamic Education.

ACKNOWLEDGEMENTS

The author would like to express gratitude to the Department of Curriculum and Instruction, Kulliyyah of Education, International Islamic University Malaysia, for the enabling environment to conceptualise and write this article.

FUNDING

This research was funded by the Hasan Langgulung Grant, administered by the Kulliyyah of Education, International Islamic University Malaysia (IIUM), under grant number HRG23-028-0028.

REFERENCES

Ajmain@Jima'ain, M.T., Mohamed, A.M., Hehsan, A., Saidalvi, A., Mohd Nasir, B., Faisal, M.S., & Awae, F. (2024). Embedding higher order thinking skills in Islamic history education in Malaysia. *International Journal of Evaluation and Research in Education (IJERE)*, 13(2), 952-959. [DOI: 10.11591/ijere.v13i2.26431](https://doi.org/10.11591/ijere.v13i2.26431)

Barz, N., Benick, M., Dörrenbächer-Ulrich, L., & Perels, F. (2023). The effect of digital game-based learning interventions on cognitive, metacognitive, and affective-motivational learning outcomes in school: A meta-analysis. *Review of Educational Research*, 94, 193 - 227. <https://doi.org/10.3102/00346543231167795>.

Cai, Z., Zhang, X., Liu, C., & Zhan, J. (2025). Effects of digital game-based learning on student's problem-solving ability: A three-level meta-analysis. *Journal of Computer Assisted Learning*, 41 (2). <https://doi.org/10.1111/jcal.70002>.

Department of Islamic Education (1993). *Islamic Education Curriculum Guide*. Kuala Lumpur: Ministry of Education Malaysia.

Ghani, M., Hamzah, M., Daud, W., & Romli, T. (2022). The impact of mobile digital game in learning Arabic language at tertiary level. *Contemporary Educational Technology*, 14(1), 1-18. <https://doi.org/10.30935/cedtech/11480>.

Hafiz, S., Ahmad, N., & Zainal, A. (2020). Student engagement in religious studies: Challenges and opportunities. *International Journal of Islamic Studies*, 18(3), 102-117.

Hakim, A., & Masumah, N. (2025). Implementasi pembelajaran agama Islam berbasis teknologi digital untuk menghadapi tantangan masyarakat 5.0. *Al-Liqo: Jurnal Pendidikan Islam*, 10 (1), 151-169. <https://doi.org/10.46963/alliqo.v10i1.2636>.

Hamzah, I. M., & Harun, N. B. (2024). Challenges in implementing 21st century PDPC methods for Islamic education subjects in schools. *International Journal of Academic Research in Business and Social Sciences*, 14(12), 3071-3079.

Hamzah, M., & Harun, N. (2024). Innovative pedagogies in Islamic education: A review. *Journal of Islamic Pedagogy*, 12(1), 45-60.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hidayah, N., Samsiadi, S., Siscawati, M., Yazid, S., & Haris, A. (2022). Islamic education problems and their solutions (quality of PAI teachers). *Research and Development Journal of Education*, 8(2), 598–606. <https://doi.org/10.30998/rdje.v8i2.13441>

Ilham S, M., Rasyid, M. R., Amaliah, R., & Indriani, P. (2025). Preferensi siswa terhadap gamifikasi dalam pembelajaran di sekolah dasar: students' preferences toward gamification in elementary school learning. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 8(2), 491–503.

Ismail, H., & Shazwan, N. (2025). Contemporary pedagogical approach in teaching islamic education: Navigating challenges and considerations. *Proceedings of the International Conference on Teaching, Education and Learning*, 3, 81-93
<https://doi.org/10.32789/edcon.2024.3108>.

JAPIM & UPM. (1994). *Report on teaching methods in Islamic education*. Universiti Putra Malaysia.

Jasmi, K. A. (2011). Traditional teaching methods in Islamic education and their limitations. *Islamic Education Journal*, 7(2), 23-34.

Karakoç, B., Eryilmaz, K., Özpolat, E., & Yildirim, I. (2020). The effect of game-based learning on student achievement: A meta-analysis study. *Technology, Knowledge and Learning*, 27, 207 - 222. <https://doi.org/10.1007/s10758-020-09471-5>.

Khaldi, A., Bouzidi, R., & Nader, F. (2023). Gamification of e-learning in higher education: a systematic literature review. *Smart Learning Environments*, 10 (10), 1-31
<https://doi.org/10.1186/s40561-023-00227-z>

Lei, H., Chiu, M., Wang, D., Wang, C., & Xie, T. (2022). Effects of game-based learning on students' achievement in science: a meta-analysis. *Journal of Educational Computing Research*, 60, 1373 - 1398. <https://doi.org/10.1177/07356331211064543>.

Margareta, S., Sesmiarni, Z., & Zakir, S. (2025). Gamified AI analysis as learning media for Islamic education on students' learning outcomes. *Sistemasi: Jurnal Sistem Informasi*, 14 (1), 293-306. <https://doi.org/10.32520/stmsi.v14i1.4865>.

Muhammad Talhah, N., et al. (2024). Rethinking pedagogy in Islamic education: A contemporary perspective. *Malaysian Journal of Education*, 29(2), 77-89.

Nadeem, M., Oroszlányová, M., & Farag, W. (2023). Effect of digital game-based learning on student engagement and motivation. *Computers*, 12 (99), 177.
<https://doi.org/10.3390/computers12090177>.

Pinto, F., Jaftha, N., Borg, S., Micallef, M., & Chircop, T. (2022). Students' learning and gaming preferences and their expectations of gamification. *MCAST Journal of Applied Research & Practice*, 6(1), 60-78. <https://doi.org/10.5604/01.3001.0015.8191>.

Prayogi, A. (2024). Application of video games as part of learning Islamic history. *EDUTREND: Journal of Emerging Issues and Trends in Education*, 1(1), 20-27.

Prayogi, S. (2024). Textbook-centered teaching in Islamic schools: Impacts and alternatives. *Journal of Muslim Education*, 11(4), 211-226.

Roseandree, B., Jenuri, J., & Nurjaman, A. (2024). Implementing digital game-based learning for qur'anic arabic learning using serious game development method to increase Arabic vocabulary. *TIN: Terapan Informatika Nusantara*, 4(11), 719-726
<https://doi.org/10.47065/tin.v4i11.5059>.

Safira, A., Nursanti, D., Fadhilah, A., & Azis, A. (2025). Problems and Challenges of Islamic Education Today and Their Solutions in the Global Era. *Synergy: Journal of Collaborative Sciences*. <https://doi.org/10.69836/synergy.v1i2.62>.

Smith, A., & Brown, L. (2021). Investigating teaching strategies in higher education: A mixed-methods approach. *Journal of Educational Research*, 114(3), 215–230. <https://doi.org/10.1080/00220671.2020.1835792>

Valtonen, T., Leppänen, U., Hyypiä, M., Kokko, A., Manninen, J., Vartiainen, H., Sointu, E., & Hirsto, L. (2020). Learning environments preferred by university students: a shift toward informal and flexible learning environments. *Learning Environments Research*, 24(3), 371 - 388. <https://doi.org/10.1007/s10984-020-09339-6>.

Vanbecelaere, S., Van Den Berghe, K., Cornillie, F., Sasanguie, D., Reynvoet, B., & Depaepe, F. (2020). The effects of two digital educational games on cognitive and non-cognitive math and reading outcomes. *Computers and Education*, 143. Article 103680. <https://doi.org/10.1016/j.compedu.2019.103680>.

Wang, L., Chen, B., Hwang, G., Guan, J., & Wang, Y. (2022). Effects of digital game-based STEM education on students' learning achievement: a meta-analysis. *International Journal of STEM Education*, 9(26), 1-13. <https://doi.org/10.1186/s40594-022-00344-0>.