

Canva AI Interactive Quizzes to Improve Participation in Formative Assessment of Islamic Jurisprudence: A Classroom Action Research

Mutiah Farhaty^{1✉}, Luthfiyah², Nasaruddin³

^{1,2,3}Universitas Muhammadiyah Bima, Indonesia

Email: tiamutiah87@gmail.com

DOI: 10.31958/jies.v6i1.16728

Article info

Abstract

Article History

Received:

10/03/2026

Revised:

01/04/2026

Accepted:

27/04/2026



Corresponding author

Low student participation in formative assessment often occurs when assessment practices rely on conventional methods that are less engaging for digital-native learners. Integrating artificial intelligence-based learning media can create more interactive and motivating assessment environments. This study aims to examine the effectiveness of Canva AI interactive quizzes in improving student participation and cognitive learning outcomes in Islamic Jurisprudence (Fikih). This research employed a Classroom Action Research (CAR) design conducted in two cycles involving 78 students. Data were collected through classroom observation, learning outcome tests, and documentation of assessment activities. The results indicate a substantial increase in students' participation and learning outcomes after the implementation of Canva AI quizzes. Quantitatively, the average score improved from 52.56% in the pre-test of Cycle I to 88.21% in the post-test of Cycle I, achieving 100% classical mastery. In Cycle II, the average score increased further to 89.36, with more students achieving perfect scores. Qualitative observations also show that the intervention successfully transformed previously passive learners into active participants during formative assessment activities. These findings suggest that Canva AI interactive quizzes serve as an effective strategy to enhance participation and engagement in Fikih learning assessments. Therefore, the integration of AI-based tools in classroom assessment is recommended to support more interactive and student-centered learning in the digital era.

Keywords: *Canva AI, Formative Assessment, Student Participation, Islamic Jurisprudence*

Abstrak

Partisipasi siswa dalam asesmen formatif seringkali rendah ketika proses penilaian masih menggunakan metode konvensional yang kurang menarik bagi peserta didik di era digital. Pemanfaatan media pembelajaran berbasis kecerdasan buatan dapat menciptakan proses asesmen yang lebih interaktif dan memotivasi. Penelitian ini bertujuan untuk menganalisis efektivitas kuis interaktif Canva AI dalam meningkatkan partisipasi siswa dan hasil belajar kognitif pada mata pelajaran Fikih. Penelitian ini menggunakan desain Penelitian Tindakan Kelas (PTK) yang dilaksanakan dalam dua siklus dengan melibatkan 78 siswa sebagai partisipan penelitian. Data dikumpulkan melalui observasi kegiatan pembelajaran, tes hasil belajar, serta dokumentasi pelaksanaan asesmen. Hasil penelitian menunjukkan adanya peningkatan signifikan pada partisipasi dan hasil belajar siswa setelah penerapan kuis Canva AI. Secara kuantitatif, skor rata-rata meningkat dari 52,56% pada pre-test Siklus I menjadi 88,21% pada post-test Siklus I dan mencapai ketuntasan klasikal 100%. Pada Siklus II, skor rata-rata meningkat menjadi 89,36 dengan bertambahnya jumlah siswa yang memperoleh

nilai sempurna. Secara kualitatif, hasil observasi menunjukkan bahwa penggunaan kuis Canva AI mampu mendorong siswa menjadi lebih aktif dan terlibat dalam kegiatan asesmen pembelajaran. Oleh karena itu, pemanfaatan Canva AI dapat menjadi strategi yang efektif untuk meningkatkan partisipasi dan kualitas asesmen formatif dalam pembelajaran Fikih di era digital.

Kata Kunci: Canva AI, Asesmen Formatif, Partisipasi Siswa, Pembelajaran Fikih

INTRODUCTION

Islamic Jurisprudence (Fikih) learning in Madrasah Aliyah faces a critical issue: the low participation of students in formative assessments. Generation Z students' preference for digital environments makes them passive toward conventional evaluation methods, as observed at MAN 2 Kota Bima (Dimitriadou & Lanitis, 2023). This phenomenon is inseparable from the pedagogical paradigm shift in the Education 5.0 era, where technology integration is no longer merely a complement, but a fundamental necessity. Fiqh learning, traditionally often regarded as a dogmatic and theoretical subject, faces significant challenges in maintaining visual and interactive relevance for students. This low participation is rooted in the mismatch between students' cognitive styles (visual-spatial) and evaluation instruments dominated by static text. As emphasized in recent studies, the effectiveness of formative assessment depends heavily on the instrument's ability to trigger instantaneous affective responses from students, which conventional paper-based methods often fail to achieve within the Madrasah Aliyah environment.

The urgency of this research is underscored by several recent studies exploring the intersection of Artificial Intelligence (AI) and Islamic education pedagogy. Emphasized that AI implementation strategies are critical for strengthening Islamic education among Generation Z, as digital-native students require learning models that are adaptive, interactive, and inclusive. This is further supported, who developed an AI-based e-learning model, highlighting that AI's primary role in religious education is to adjust to diverse student learning styles while providing accurate data processing and rapid automated feedback (Atmojo et al. 2023). While these studies establish the broader potential of AI, they often remain at the level of theoretical frameworks or general e-learning implementation without specifically addressing the granular requirements of Fiqh formative assessments.

In the context of instructional media, the use of Canva has been a subject of significant interest. Conducted a quantitative study revealing that Canva-based learning media contributes approximately 40.7% to the improvement of student motivation in Islamic Religious Education (PAI) subjects. Similarly, recent Classroom Action Research (CAR) demonstrated that utilizing Canva for animated media can increase student learning activity in religious education from a baseline of 35% to 86% across two cycles. Despite these positive trends, most research focusing on Canva in the Madrasah environment such as tends to treat the platform as a tool for general

presentation or visual aid rather than leveraging its generative AI capabilities for dynamic assessment (Labs 2023).

The integration of specific AI tools like chatbots or generative algorithms for religious learning has also seen progress. Identified that while AI-driven media facilitates better monitoring and increases access to materials, there remains a significant "pedagogical gap" due to the lack of specific guidelines for integrating AI into the normative and ritualistic subjects of Fiqh (Baskara and Sutarni 2024). Other researchers, highlight that AI innovation is essential to increase student interaction, yet current implementations often struggle to bridge the gap between complex legal texts and the visual perceptions of modern learners (Hussein et al. 2022).

This research fills a critical gap in the literature by specifically examining how Canva AI, rather than just the basic Canva platform, can be operationalized for formative assessments in Fiqh. Unlike generic quiz platforms that often lack Sharia-accurate visualizations, this study demonstrates that generative algorithms can produce aesthetically superior and contextually relevant instruments that trigger instantaneous affective and cognitive responses from students. Thus, this study moves beyond general engagement to provide a concrete, AI-driven action framework for relevant and adaptive religious evaluations in the Industry 4.0 era. The use of available digital media has not been optimised to create high interactivity and aesthetics (Fredricks, Blumenfeld, and Paris 2004). This research gap centres on the lack of exploration of interactive quizzes specifically designed using Canva AI for formative assessment in Fikih.

Previous research has shown various efforts to overcome the challenges of Fiqh learning in the digital era; however, these remain limited to aspects of learning interest or student mindset without emphasizing active participation through AI-based formative assessment. Identified a Generation Z moral crisis resulting from social connectivity, where PAI (Islamic Religious Education) teachers in Bima responded with digital ethics integration, though it had not yet addressed interactive assessments for Islamic learning (Ainun et al. 2025). Explored descriptive feedback to build a growth mindset in Hudud material at MAN 2 Bima, which successfully reduced cognitive anxiety but relied on manual observation without digital gamification elements (Mutiah Farhaty 2025). Meanwhile, developed interactive Canva media through the ADDIE model for grade X, achieving high validity (4.4-4.5) and an N-gain of 0.644 in learning interest, although the focus was on general development without the specific context of Fiqh formative assessment (Wati et al. 2025).

Thus, this research gap is crucial because while platforms such as Kahoot or Quizizz have become widely known, the design flexibility offered by Canva AI provides a comparative advantage in terms of local Madrasah content personalization. Most generic quiz platforms have limitations in visualizing technical Fiqh terms, such as 'ijma', 'qiyas', or 'jinayah' procedures. Canva AI, with its generative algorithms, enables teachers to create illustrations that are Sharia-accurate yet remain artistically

modern. This research gap also encompasses the aspect of teacher time efficiency, where AI is capable of reducing the time required to create high-quality quiz media a significant finding for enhancing educator productivity in the digital era.

The literature gap concerning the use of generative Artificial Intelligence (AI) in the context of Islamic religious education represents the primary urgency of this research. Although numerous digital quiz platforms are available, most remain generic and lack the aesthetic design flexibility capable of enhancing students' 'sense of belonging' toward Fiqh materials. Canva AI offers a breakthrough through its Magic Media features and AI-driven templates, which allow for profound personalization of quiz content. This innovation goes beyond the use of simple visual media; it integrates intelligent algorithms to transform visualizations of abstract Islamic legal concepts into more concrete and aesthetically appealing forms an aspect that has long been neglected in the development of instructional media within the Madrasah environment. Therefore, this research is crucial to examine the effectiveness of implementing Canva AI quizzes in boosting active student participation (Dukut 2024). This in-depth study will provide an analytical framework for realising relevant and adaptive religious evaluations in the digital age.

The need for this adaptive evaluation aligns with Digital Pedagogy theory, which emphasizes that technology should not merely serve as a substitute for physical media but must reconstruct the learning experience itself. In the context of Islamic education, the challenge lies in maintaining the sacredness of Fiqh values while packaging them in a dynamic framework. This research goes further by dissecting the psychological cognitive aspects of students as they interact with AI. The integration of Canva AI into formative assessments is expected to reduce test anxiety, which frequently hinders active participation. By leveraging gamification features and visual intelligence, these quizzes function as mediation instruments that bridge the gap between the complexity of Islamic legal texts and the visual perception of Generation Z. This is crucial because the success of Fiqh learning at the Madrasah Aliyah level is measured not only by textual memorization but by the extent to which students feel emotionally and intellectually engaged in the process of legal discovery (*istinbat*) presented interactively. The central problem at hand is the low level of student participation in formative assessments in Fiqh. This issue manifests through monotonous learning methods, a lack of interactive media, and is evidenced by the fact that only about ten students are actively involved in conventional evaluations at MAN 2 Kota Bima.

The lack of student participation in Fiqh formative assessments at MAN 2 Kota Bima has become a crucial issue in the digital era, where Generation Z, as digital natives, demands learning approaches that are interactive and relevant to their socio-technological reality. Fiqh learning, which still relies on conventional methods such as rote memorization and manual evaluation, results in structural monotony. This is supported by field facts showing that only 10 out of 78 students are active in a single

class, as observed. This phenomenon not only hinders the achievement of cognitive competencies but also weakens the internalization of normative Fiqh values, thereby potentially worsening the gap between Islamic theory and students' daily life practices amidst digital disruption.

The urgency of this intervention is increasingly pressing, given that recent studies consistently underscore similar challenges in Fiqh learning. Research has found that traditional methods fail to meet student preferences for interactive digital content, leading to a decline in learning interest and engagement (Berutu 2025). Other studies highlight the dominance of a rote-centered approach that lacks context, making it difficult for students to apply Fiqh law to contemporary issues such as digital transactions (Mayzura 2025). Furthermore, studies reveal limitations in teachers' digital literacy, which exacerbates low participation due to a lack of media innovations like blended learning or gamification platforms (Wijaya 2023). Research also emphasizes that without technological adaptation, Fiqh learning risks losing relevance among Generation Z, who are more responsive to instant accessibility and visualization. This research, utilizing a specific Canva AI strategy to target absolute participation through interactive quizzes, offers an empirical solution for transforming formative assessment within Indonesian Islamic education.

Student apathy in conventional evaluations is frequently a manifestation of cognitive disengagement. At MAN 2 Kota Bima, one-way evaluation patterns create a gap between the teacher as the source of authority and the student as a passive recipient. This issue is exacerbated by the perception that Fiqh subjects are static and lack relevance to modern social dynamics. This lack of active engagement has long-term impacts on students' religious literacy. If the initial evaluation process fails to garner interest, the internalization of Sharia values will be hindered. Therefore, a pedagogical disruption is required to transform the classroom atmosphere from teacher-centered to technology-enhanced student-centered learning. Canva AI emerges as a catalyst in this transformation, where each quiz is designed to trigger curiosity and healthy competition-core characteristics of the learning profiles of today's Millennial and Gen Z students. Theoretically, previous studies have only examined the effectiveness of simple Canva PowerPoint (PPT) for cognitive learning outcomes in Fikih (Imran and Almusharraf 2023). However, these studies have not elaborated on the use of interactive quizzes based on Canva AI specifically for class XI MA. This situation hinders student interest and engagement (Anantrasirichai and Bull 2022). Therefore, this study focuses on analysing the use of Canva AI Interactive Quizzes to enhance student participation through behavioural, affective, and cognitive dimensions (Bond and Bergdahl 2023) in class XI-IPAS 4 and XI-IPAS 5 students.

In response to the complexity of student participation issues, this research proposes the implementation of interactive quizzes designed using Canva AI media as a tool for formative assessment (Kwid, Sarty, and Yang 2024). The concrete solution is to formulate a systematic implementation procedure for Canva AI quizzes in the context of

Fikih (Janković and Lambić 2022) Practically, this study will disseminate innovative references to Islamic education teachers at MAN 2 Kota Bima, encouraging reflection and the promotion of sustainable digital transformation. This research contribution is not only epistemological but also pragmatic, emphasising the improvement of Islamic education quality with a focus on active student participation (Tavares 2022). The findings will serve as an action framework for madrasahs to adopt AI technology, ensuring that formative Fikih assessments are more relevant and effective.

METHODS

This study is a Classroom Action Research (CAR) using a mixed-methods approach, combining quantitative and qualitative methods with a Descriptive-Associative approach to test the effectiveness of Canva AI interactive quizzes on student participation and hypothesis testing (Creswell & Guetterman, 2024). This Classroom Action Research (CAR) design adopts the Kemmis & McTaggart cycle model, consisting of the stages of planning, acting, observing, and reflecting. A mixed-methods approach is utilized in an explanatory sequential manner to provide a comprehensive overview: quantitative data from quiz scores provide numerical evidence of effectiveness, while qualitative data from behavioral observations offer interpretive depth regarding why student participation increased.

Data validity is ensured through source and technique triangulation, ensuring that every change in students' participatory behavior is accurately documented through an observation rubric validated by both subject matter and media experts. The research population consists of 13 classes (5 IPAS, 5 IPA, 1 Religion, 2 IPS). The sampling technique used is Non-Random Sampling, selecting 79 units of analysis (students). Sample selection was based on inclusion criteria (classes with the most students and few absentees) and exclusion criteria (classes with the fewest students and many absentees) (Cohen, Manion, and Morrison 2023). The selection of a mixed-methods design within this CAR framework allows the researcher to perform simultaneous data triangulation. Quantitatively, the researcher measures effectiveness through the N-Gain test to observe the score improvement between the pre-test and post-test in each cycle. Qualitatively, the researcher conducts thematic analysis of field notes and interview transcripts with students regarding their perceptions of AI use.

The diverse population from various specializations (IPAS, IPA, Religious Studies, IPS) provides a robust database for limited generalization within the Madrasah environment. However, a sharp focus on class XI-IPAS was chosen because this class showed the most striking participation disparity during initial observations, allowing the effectiveness of the Canva AI intervention to be tested under the most challenging conditions. Action procedures are carried out collaboratively between the researcher and peer teachers to ensure objectivity in observation during the quiz process. The data used include primary and secondary data.

Data were collected through interviews, observations, documentation, as well as pre-tests and post-tests. Data analysis was conducted using Descriptive-Associative techniques, based on the average formula (Mean), or more specifically, the Simple Arithmetic Mean formula, as well as the Percentage formula or the Classical Mastery formula (in the context of Classroom Action Research). The descriptive statistical data analysis in this research aims to measure the central tendency of student achievement in each cycle. A simple average formula is used to compare performance growth between cycles linearly.

$$\bar{x} = \frac{\sum xi}{n}$$

Furthermore, the researcher applies simple correlation analysis to examine the relationship between the level of media interactivity (as the independent variable) and the duration of students' active engagement in the formative assessment process. The use of this technique is crucial to prove that the surge in scores is not merely a coincidence, but rather the result of a systematic and measurable technological intervention.

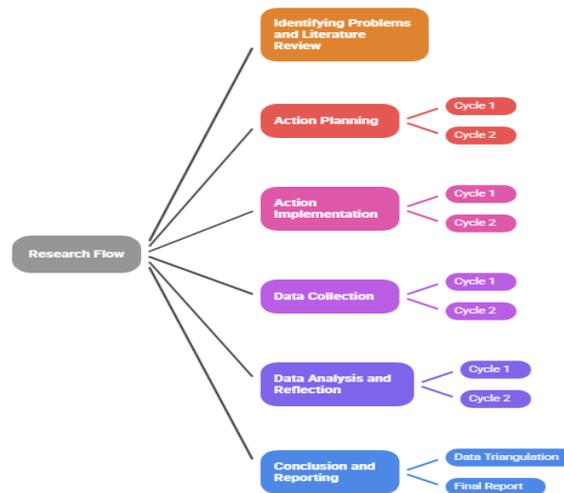


Figure 1.

Research Flow

The success criteria are established as follows:
Quantitative: At least 75% of students reach the active/very active category by the end of Cycle 2, and there is a minimum increase of 20% in the average activity score.
Qualitative: At least 80% of students state that the quizzes are more interesting, and group discussions have become more substantive.

RESULTS AND DISCUSSIN

Results

Initial observations before the intervention revealed a critical issue with student participation in formative Fikih assessments. Specifically, in two classes with a total of 78 students (39 students per class), only around 13 students per class showed active involvement using conventional methods such as question-and-answer in formative assessments (Montenegro-Rueda et al. 2023). This phenomenon reflects the low interest and passive tendency of students, particularly Generation Z, towards evaluations they consider monotonous or lacking interactivity (McCarty, Redmond, and Peel 2021).

In-depth analysis of the pre-intervention data reveals a very wide 'participation gap,' where only 16.6% of students were truly active. The majority of students were in a state of 'passive compliance,' where they were physically present but not cognitively engaged. This was confirmed through initial interviews, in which students stated that traditional oral question-and-answer methods created a 'fear of failure.' According to Bandura's social learning theory, a classroom environment that does not support self-efficacy will decrease participation. Consequently, Canva AI is designed to be a 'safe space' where students can interact with the material through a healthy competitive digital quiz interface.

The implementation of Canva AI-based interactive quizzes as an intervention resulted in significant qualitative changes in students' learning behaviour (Greipl et al. 2021). Data show a substantial increase in participation: all 78 students (including those in the observed classes) actively participated in formative Fikih assessments. This behavioral change can be explained through Flow Theory, as proposed by Csikszentmihalyi, where students achieve a state of full engagement when task challenges (Fiqh quizzes) are balanced with the attractiveness of the media utilized.

The participation surge to 100% is an extraordinary achievement rarely found in conventional methods. This success is inseparable from the 'discovery learning' elements embedded within the quiz design. When students click on answer options, Canva AI provides an instant visual response that offers positive reinforcement. Based on field observations, there was a shift in the classroom atmosphere from initially silent and tense to dynamic and full of discussion among students. This phenomenon proves that AI technology, when managed with the right pedagogy, can serve as a social bridge that strengthens collaboration in the classroom, rather than isolating students in front of screens.

Canva AI facilitates a 'gamified experience' that transforms test tension into explorative joy. Qualitatively, students who previously tended to be passive and avoided verbal interaction began to show initiative in answering quiz questions and became actively involved in post-quiz group discussions. This transformation proves that digital aesthetics and artificial intelligence play a strong psychological role in dismantling students' emotional barriers toward religious material perceived as rigid.

Qualitative data indicate that students feel a sense of 'ownership' over the assessment process. The use of gamification elements such as point acquisition and time limits stimulates adrenaline and focus. It is important to note that the increase in verbal

initiative occurred after the quiz ended, where students enthusiastically asked about the reasoning behind incorrect answers. This demonstrates that the Canva AI quiz successfully triggered curiosity, which is the primary foundation of HOTS (Higher Order Thinking Skills) learning.

This improvement indicates that the use of interactive, aesthetically valuable digital media can bridge the gap between traditional learning environments and the preferences of digital-native students (Cacicio and Riggs 2023). The intervention successfully transformed formative assessments into an engaging and motivating experience, turning the classroom atmosphere from passive to one filled with active participation in Fikih learning (Escalante, Pack, and Barrett 2023).

Table I.

The pre-test and post-test data of Cycle 1 show the following distribution of scores:

| | Correct Answers | Number of Students (n) | Percentage of Students (%) | Score |
|---------------------------|-----------------|------------------------|----------------------------|-------|
| Score Total Average Score | 7 Correct | 2 | 2.56% | 70 |
| | 6 Correct | 33 | 42.31% | 60 |
| | 5 Correct | 26 | 33.33% | 50 |
| | 4 Correct | 17 | 21.79% | 40 |
| | 78 | 100.00% | | Total |
| | | | | 52.56 |
| | Correct Answers | Number of Students (n) | Percentage of Students (%) | |
| Total Average Score | 10 Correct | 14 | 17.95% | 100 |
| | 9 Correct | 36 | 46.15% | 90 |
| | 8 Correct | 28 | 35.90% | 80 |
| | 78 | 100.00% | | Total |
| | | | | |
| | Correct Answers | Number of Students (n) | Percentage of Students (%) | |

The pre-test for Cycle I indicated low initial cognitive mastery with an average of 52.56. This was exacerbated by the concentration of the majority of students (75.64%) in the 50 to 60 score range, highlighting the fundamental gap before the intervention.

The improvement at the beginning of Cycle II indicates long-term memory retention resulting from the Cycle I intervention. In educational psychology, this phenomenon is known as the spacing effect, where the periodic provision of engaging stimuli enhances memory. Although classical mastery had not yet been achieved at this pre-test stage, the score distribution's rightward shift (toward higher values) proves that the students' cognitive foundations have strengthened. Students are becoming accustomed to the analytical thinking patterns presented in the Canva AI quizzes.

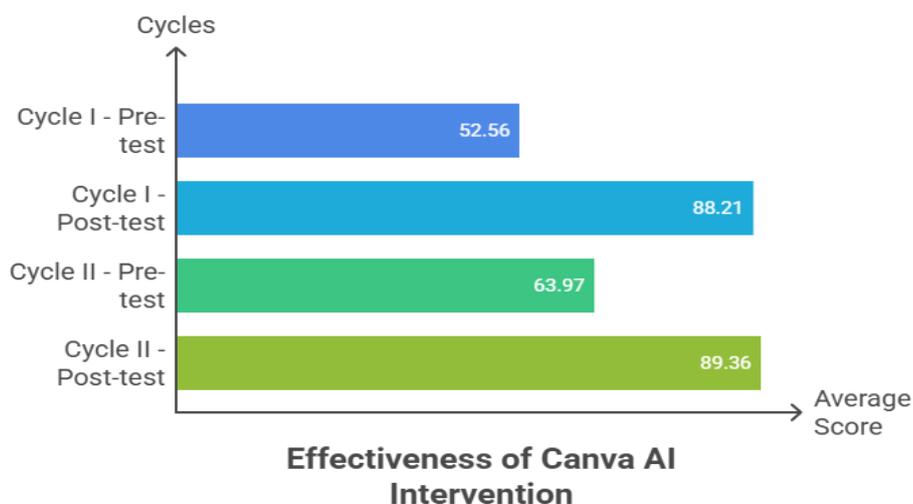


Figure 2: Average Score Line Diagram

The continued implementation of the intervention optimised results, with the average post-test score rising to 89.36. This increase of 25.39 points maintained absolute mastery (100% of students ≥ 80) and further improved the highest mastery quality, as evidenced by the increase in students achieving a perfect score of 100.

Discussion

This research demonstrates the absolute efficacy of the Canva AI intervention. Cycle I served as the phase for fundamental mastery, where the average score rose from 52.56 to 88.21, achieving 100% classical mastery and transforming students from passive to active participants. The absolute effectiveness in Cycle I reflects a 'novelty effect' that is pedagogically managed. The average surge of 35.65 points demonstrates that AI integration is capable of overcoming learning loss in the basic concepts of Fiqh Ibadah. This success is also supported by the instant feedback feature in Canva quizzes, which allows students to perform real-time self-correction. From a social constructivism perspective, AI technology here acts as scaffolding that helps students transcend their zone of proximal development, so that the 100% classical mastery is not merely a figure, but a representation of the equalization of understanding across the entire spectrum of student abilities.

Cycle II consolidated and optimised the quality, with the average score rising to 89.36. This achievement maintained absolute mastery and improved understanding quality, as evidenced by the increase in the number of students achieving a perfect score of 100. In Cycle II, the research focus shifted from mere participation to high-level cognitive deepening (Higher-Order Thinking Skills or HOTS). While the increase in the average score was not as drastic as in Cycle I, the rise in the number of students achieving perfect scores (100) signifies a strengthening of long-term memory retention. This was facilitated by the AI quiz design in Cycle II, which prioritized contemporary case analysis in Fiqh, demanding critical thinking from the students. This consolidation of results demonstrates that Canva AI serves not merely as an engagement tool but as a cognitive instrument capable of sustaining students' intrinsic motivation over time, effectively preventing the decline of interest once the novelty effect dissipates.

This research has theoretical implications that enrich the framework of technology-based learning in Fiqh education. The findings confirm that the integration of Canva AI in formative assessments is capable of revitalizing Generation Z students' participation through an interactive approach aligned with constructivist learning theory (Piaget, 1970) and digital native learning (Prensky, 2001). The increase in the average score from 52.56% to 89.36%, along with the transformation to 100% student participation, demonstrates the effectiveness of AI tools in mediating deeper cognitive processes, particularly in normative subjects like Fiqh, which tend to be abstract and rote-centered.

Practically, the Canva AI strategy is recommended as a formative assessment innovation in Islamic educational institutions, especially in areas with limited digital access. Fiqh teachers can adopt these interactive quizzes to reduce the monotony of conventional methods, increase knowledge retention, and achieve absolute classical mastery. Broader implications include national curriculum policy, where the Ministry of Education and Culture can incorporate Canva AI training into Madrasah teacher professional development programs to bridge the digital gap in the Industry 4.0 era.

Further research is recommended to test the scalability of this strategy on multidimensional samples, such as inter-generational student comparisons or integration with other AI platforms (e.g., Google Forms AI or Kahoot!), as well as a long-term impact analysis on Fiqh understanding.

CONCLUSION

Based on the results of this study, it is proven that the Canva AI Interactive Quiz intervention effectively reconstructed participation and Fiqh learning outcomes. Cycle I served as the phase for fundamental mastery, marked by an increase in the average score from 52.56 to 88.21, achieving 100% classical mastery and transforming students from passive to participative. Cycle II consolidated and optimised academic quality, as evidenced by the average score increasing to 89.36. This achievement maintained absolute mastery and improved understanding quality, as shown by the significant increase in the number of students achieving a perfect score of 100.

Theoretically, the findings of this research provide a significant contribution to the development of digital pedagogical models in Islamic Religious Education (PAI), particularly in the subject of Fiqh. The integration of artificial intelligence through the Canva AI platform is proven to align with the principles of social constructivism, where technology functions not merely as a presentation tool but as a cognitive mediator that facilitates the process of independent knowledge discovery by students. In this context, AI acts as a scaffolding that bridges the complexity of Islamic legal texts—often regarded as abstract and dogmatic—with the visual-spatial preferences of Generation Z students. The transformation from rote-centered learning to an interactive-explorative approach demonstrates that media with high aesthetic value and visual intelligence can reduce students' cognitive load, allowing them to focus more on the substance of the jurisprudence being studied. This is further reinforced by the application of Flow Theory, where total student engagement is achieved because the challenges within the

interactive quizzes are balanced by the attractiveness of the media design generated by generative AI algorithms.

Practically, the strategy of utilizing Canva AI interactive quizzes is highly recommended for educators in Madrasah Aliyah to reconstruct classroom atmospheres that tend to be monotonous. The success of this intervention, demonstrated by the achievement of 100% classical mastery and an increase in active participation from a mere 13 students to the total involvement of all 78 students, indicates that digital aesthetics and instant feedback are key to triggering intrinsic motivation. Educators can leverage features such as Magic Media and Magic Design to create illustrations of Fiqh procedures (such as worship or transaction procedures) that are Sharia-accurate yet remain artistically modern. This not only enhances long-term memory retention through the spacing effect of enjoyable repetition but also builds a sense of ownership among students toward the evaluation process itself. As a policy follow-up, educational policymakers at the ministerial and institutional levels are advised to integrate AI literacy into sustainable teacher professional development curricula. This effort is crucial for narrowing the digital gap and ensuring that digital transformation in the madrasah environment goes beyond administrative aspects to touch the heart of pedagogy. Integrating training in AI prompt engineering for PAI teachers will enhance productivity in developing high-quality assessment media in a short amount of time. Consequently, the sustainability of digital transformation in religious education within the Industry 4.0 and Society 5.0 eras can be guaranteed, ensuring that Fiqh learning remains relevant, adaptive, and capable of responding to the needs of future generations living in a constantly evolving technological ecosystem.

REFERENCES

- A. Ruslan Ruslan, Kaharuddin Kaharuddin, Ikhsan Maulana, Hermansyah Hermansyah, And Agus Setiawan. 2025. "Addressing The Moral Crisis Among Generation Z: Islamic Religious Education Teachers' Responses In The Era Of Social Connectivity." *Al-Ishlah: Jurnal Pendidikan* 17(4).
- Anantrasirichai, N., And D. Bull. 2022. "Artificial Intelligence In The Creative Industries: A Review." *Artificial Intelligence Review* 55(1):589–656. Doi: 10.1007/S10462-021-10039-7.
- Atmojo, Idam Ragil Widiyanto, M. Pd Chumdari, M. Pd Matsuri, Fadhil Purnama Adi, Roy Ardiansyah, And Dwi Yuniasih Saputri. 2023. *Assessment Kognitif Pada Kelas Digital Dalam Pembelajaran Abad 21*. Cv Pajang Putra Wijaya.
- Baskara, Agus, And Nani Sutarni. 2024. "Kompetensi Pedagogik Guru Sma Di Indonesia : Sebuah Systematic Literature Review." 13(3):3481–96.
- Berutu, Rindu. 2025. "Penggunaan Media Digital Dalam Pembelajaran Pendidikan Agama Islam: Inovasi Bagi Guru Pai Di Abad 21." *Edukatif* 3(1):211–17.
- Bond, Melissa, And Nina Bergdahl. 2023. "Student Engagement In Open, Distance,

And Digital Education Bt - Handbook Of Open, Distance And Digital Education.” Springer Nature.

- Cacicio, S., And R. Riggs. 2023. “Bridging Resource Gaps In Adult Education: The Role Of Generative Ai.” *Adult Literacy Education: The International Journal Of Literacy, Language, And Numeracy* 5(3):80–86. Doi: 10.35847/Scacicio.Riggs.5.3.80.
- Cohen, Louis, Lawrence Manion, And Keith Morrison. 2023. *Research Methods In Education*. 9th Ed. Routledge.
- Creswell, John W., And Timothy C. Guetterman. 2024. *Educational Research: Planning, Conducting, And Evaluating Quantitative And Qualitative Research*. 7th Ed. Pearson.
- Dimitriadou, E., And A. Lanitis. 2023. “A Critical Evaluation, Challenges, And Future Perspectives Of Using Artificial Intelligence And Emerging Technologies In Smart Classrooms.” *Smart Learning Environments* 10(1). Doi: 10.1186/S40561-023-00231-3.
- Dukut, E. M. 2024. “Preserving Indonesian Cultural Heritage With Canva: An Ai Education 6.0 Graphic Arts Project.” Pp. 507–20 In.
- Escalante, J., A. Pack, And A. Barrett. 2023. “Ai-Generated Feedback On Writing: Insights Into Efficacy And Eni, Student Preference.” *International Journal Of Educational Technology In Higher Education* 20(1). Doi: 10.1186/S41239-023-00425-2.
- Fredricks, J. A., P. C. Blumenfeld, And A. H. Paris. 2004. “School Engagement: Potential Of The Concept, State Of The Evidence.” *Review Of Educational Research* 74(1):59–109. Doi: 10.3102/00346543074001059.
- Greipl, S., E. Klein, A. Lindstedt, K. Kiili, K. Moeller, H. O. Karnath, J. Bahnmueller, J. Bloechle, And M. Ninaus. 2021. “When The Brain Comes Into Play: Neurofunctional Correlates Of Emotions And Reward In Game-Based Learning.” *Computers In Human Behaviour* 125:106946. Doi: 10.1016/J.Chb.2021.106946.
- Hussein, Husam Abdulhameed, Abdul Munem Hasan Ahmed, Shihab A. Shawkat, And Raed Ashraf Kamil. 2022. “The Effect Of Using Smart Board Technology On The Educational Process In The Colleges Of Education In Terms Of Features And Challenges.” P. 50013 In *Aip Conference Proceedings*. Vol. 2394. Aip Publishing Llc.
- Imran, M., And N. Almusharraf. 2023. “Analyzing The Role Of Chatgpt As A Writing Assistant At Higher Education Level: A Systematic Review Of The Literature.” *Contemporary Educational Technology* 15(4). Doi: 10.30935/Cedtech/13605.
- Janković, A., And D. Lambić. 2022. “The Effect Of Game-Based Learning Via Kahoot And Quizizz On The Academic Achievement Of Third Grade Primary School Students.” *Journal Of Baltic Science Education* 21(2):224–31. Doi:

10.33225/Jbse/22.21.224.

- Kwid, G., N. Sarty, And D. Yang. 2024. "A Review Of Ai Tools: Definitions, Functions, And Applications For K-12 Education." *Computer Science And Robotics Technology* 3. Doi: 10.5772/Acrt.20240048.
- Labs, Smart. 2023. "A Methodology For Training Toolkits Implementation In Smart Labs." 1–29.
- Mayzura, M. 2025. "Inovasi Pembelajaran Pendidikan Agama Islam Penggunaan Media Digital Di Sma Pab 4 Sampali." *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial* 2(10).
- Mccarty, C., P. Redmond, And K. Peel. 2021. "Teacher Decision-Making In The Classroom: The Influence Of Cognitive Load And Teacher Affect." *Journal Of Education For Teaching* 47(4):548–61. Doi: 10.1080/02607476.2021.1902748.
- Montenegro-Rueda, M., J. Fernández-Cerero, A. F. Mena-Guacas, And M. M. Reyes-Rebollo. 2023. "Impact Of Gamified Teaching On University Student Learning." *Education Sciences*.
- Mutiah Farhaty, Masita. 2025. "Membangun Growth Mindset Melalui Umpan Balik Deskriptif: Studi Kualitatif Pada Pembelajaran Fikih." 10.
- Tavares, N. 2022. "The Use And Impact Of Game-Based Learning On The Learning Experience And Knowledge Retention Of Nursing Undergraduate Students: A Systematic Literature Review." *Nurse Education Today* 117:105484. Doi: 10.1016/J.Nedt.2022.105484.
- Wati, Brigita, Br Ginting, Nurhasanah Siregar, And Universitas Negeri Medan. 2025. "Pengembangan Media Pembelajaran Interaktif." 4:391–404.
- Wijaya, Asep. 2023. "Tiktok: Inovasi Media Digital Sebagai Alternatif Pembelajaran Pendidikan Agama Islam Di Era Milenial." *Fajar Jurnal Pendidikan Islam* 3(2):127–40.