

Toward AI-Assisted Islamic Reproductive Health Education: ChatGPT-Supported Fiqh Tahārah Learning for Adolescent Health Literacy

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Article Info

Keywords:

Artificial Intelligence; ChatGPT; AI-assisted learning; Fiqh education; reproductive health literacy; Islamic education;

ABSTRACT

Integrating Artificial Intelligence into Islamic education requires a pedagogical model that preserves teachers' epistemic authority while addressing adolescents' health needs. This study examines the implementation, pedagogical affordances, and limitations of ChatGPT-assisted Fiqh al-Tahārah learning and develops a model for strengthening Islamic value-based reproductive health literacy. Employing a qualitative single-case study design, the research was conducted at MA Al Ishlah Banjarejo Blora. Data were collected through observations, semi-structured interviews, documentation, and analysis of students' interactions with ChatGPT, and were analyzed using the interactive model of Miles, Huberman, and Saldaña. The findings revealed three stages of implementation: preparation, inquiry-based interaction, and reflection and verification. ChatGPT provided a psychologically safer space for sensitive questions, flexible access to explanations, contextualized Fiqh learning, increased engagement, and critical AI literacy. However, its use was constrained by potential inaccuracies, oversimplification of differences among Islamic legal schools, prompt quality, unequal access, and privacy and ethical concerns. The resulting AI-Assisted Taharah Learning Model integrates AI-assisted inquiry, teacher facilitation, source verification, and Islamic value internalization while maintaining teachers' pedagogical, epistemic, and moral authority.

Informasi Artikel

Kata Kunci:

Kecerdasan Buatan; ChatGPT; pembelajaran berbantuan AI; pendidikan Fiqh; literasi kesehatan reproduksi; pendidikan Islam.

ABSTRAK

Integrasi kecerdasan buatan dalam pendidikan Islam memerlukan model pedagogis yang menjaga otoritas keilmuan guru sekaligus merespons kebutuhan kesehatan remaja. Penelitian ini bertujuan menganalisis implementasi, potensi, keterbatasan, dan merumuskan model pembelajaran Fiqh Tahārah berbantuan ChatGPT untuk memperkuat literasi kesehatan reproduksi berbasis nilai Islam. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus tunggal di MA Al Ishlah Banjarejo Blora. Data dikumpulkan melalui observasi, wawancara semi-terstruktur, dokumentasi, dan analisis interaksi peserta didik dengan ChatGPT, kemudian dianalisis menggunakan model interaktif Miles, Huberman, dan Saldaña. Temuan menunjukkan bahwa pembelajaran berlangsung melalui persiapan, interaksi berbasis penyelidikan, serta refleksi dan verifikasi. ChatGPT menyediakan ruang bertanya yang lebih aman, akses penjelasan yang fleksibel, kontekstualisasi Fiqh, peningkatan keterlibatan, dan penguatan literasi AI kritis. Namun, manfaat tersebut dibatasi oleh risiko ketidakakuratan, penyederhanaan perbedaan mazhab, kualitas prompt, ketimpangan akses, serta persoalan privasi dan etika. Penelitian ini menghasilkan Model AI-Assisted Taharah Learning yang mengintegrasikan penyelidikan berbantuan AI, fasilitasi guru, verifikasi sumber, dan internalisasi nilai Islam, dengan tetap menempatkan guru sebagai pemegang otoritas pedagogis, epistemik, dan moral.

Article History

Received : 15/08/2026

Revised : 10/09/2026

Accepted : 21/10/2026

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1. Introduction

The rapid advancement of artificial intelligence (AI) has become a major catalyst for the transformation of twenty-first-century education, introducing learning paradigms that are increasingly adaptive, personalized, and data-informed. AI-driven innovations enable students to access learning experiences beyond conventional spatial and temporal constraints while allowing instructional content, learning pace, and feedback to be tailored to individual learner characteristics [1]. The emergence of generative artificial intelligence (GenAI), particularly ChatGPT, has further expanded the role of AI from a tool for automation into an interactive learning assistant capable of facilitating dialogue, explaining concepts within relevant contexts, generating instructional materials, and supporting students' critical thinking and problem-solving abilities [2]. The educational use of ChatGPT has also been associated with greater student engagement, self-directed learning, digital literacy, and academic efficiency, prompting its growing adoption across different levels of education as part of the broader shift toward digital pedagogy [3]. Nevertheless, the integration of AI presents substantial challenges, including technological dependence, informational bias, data privacy concerns, threats to academic integrity, and the need to strengthen both digital literacy and ethical awareness among users [4]. Accordingly, advances in AI should be understood not merely as technological innovation but as a catalyst for pedagogical change that requires educators to integrate AI critically, ethically, and purposefully in order to create more meaningful and learner-centered educational experiences.

Improving adolescent reproductive health literacy has become a strategic priority in global education and health development, particularly as young people face increasingly complex challenges in the digital era. The World Health Organization (WHO) has emphasized that many adolescents across countries still lack the knowledge, skills, and decision-making capacity required to manage their reproductive health, leaving them vulnerable to risks such as adolescent pregnancy, sexually transmitted infections, gender-based violence, and unsafe health practices [5]. Although digital technologies have broadened adolescents' access to health information, they have also created new challenges through the proliferation of unverified content, misinformation, and disinformation across social media and other digital platforms. Consequently, health literacy has become essential for distinguishing credible information from misleading claims [6]. This situation is particularly concerning because misconceptions about puberty, menstruation, reproductive hygiene, wet dreams, and sexual health remain prevalent among adolescents and may contribute to unhealthy behaviors when they are not addressed through education grounded in scientific evidence and moral values.

With the continuing development of generative artificial intelligence (GenAI), ChatGPT has attracted growing attention as an educational tool capable of supporting the transformation of fiqh teaching through rapid, interactive, and adaptive access to information. In instructional settings, ChatGPT can function as a learning assistant by explaining Islamic concepts, generating contextual illustrations and learning exercises, and facilitating question-driven discussion through inquiry-based learning, thereby supporting more personalized and reflective learning experiences [4]. Nevertheless, its use in fiqh education raises important concerns regarding ethics and epistemic

authority. As an AI-based language model, ChatGPT may generate inaccurate or fabricated information, commonly described as AI hallucinations, present interpretations that fail to reflect the diversity of scholarly opinions, and lack the scholarly and methodological capacity required to undertake *ijtihad* within the Islamic intellectual tradition [7]. Accordingly, existing research emphasizes that ChatGPT should be positioned as a tool for AI-assisted learning rather than as a substitute for teachers or an authoritative source of religious knowledge. Verification against the Qur'an, hadith, classical Islamic scholarly texts (*turāth*), and the views of credible scholars must therefore remain a fundamental principle in the teaching and learning of fiqh [8].

Research on the use of artificial intelligence (AI) in fiqh education has expanded in recent years, particularly following the emergence of generative AI applications such as ChatGPT. Studies of digital transformation and AI integration in education indicate that these technologies can support instructional effectiveness by providing adaptive learning materials, personalizing learning experiences, and strengthening students' digital literacy [9], [10], [11]. Other findings suggest that the educational value of AI may extend beyond digital competence to the cultivation of students' spiritual character, although its implementation continues to present ethical and pedagogical challenges [11], [12]. At the conceptual level, literature on AI in Islamic education has addressed a range of applications, including intelligent tutoring systems, personalized fiqh instruction, AI-assisted Qur'anic learning, and the use of natural language processing for Arabic language education [13]. Nevertheless, most existing studies remain concerned with general technological benefits, implementation barriers, teacher readiness, ethical considerations, and the authenticity of AI-generated Islamic content. Limited empirical attention has been devoted to how AI can be pedagogically integrated into specific areas of fiqh that are directly connected to students' everyday experiences.

This gap is evident in Muhammad's systematic review, which categorized AI applications in Islamic education into three principal clusters: Qur'anic learning, fiqh education, and Arabic language instruction. The review also called for further empirical research situated within madrasah learning contexts [13]. Meanwhile, other studies have begun to investigate ChatGPT as a supplementary tool for teaching specific subjects in madrasahs. One such study reported that the interactive and responsive presentation of learning materials through ChatGPT strengthened student interaction, motivation, and understanding in *Aqidah Akhlaq*, Islamic creed and ethics at the Islamic senior secondary school level [14]. By contrast, research on fiqh education in the digital era has largely examined pedagogical innovation and AI-supported personalization as means of improving students' understanding of Islamic legal concepts, without explicitly connecting such instruction to adolescent reproductive health issues [6]. Taken together, these studies indicate that digital transformation has progressed beyond the mere digitization of instructional media toward the use of AI as a learning assistant that supports personalized learning, digital literacy, and student competence. Nevertheless, this development has predominantly been examined within Islamic education in general rather than through the empirical integration of AI into specific, contextually relevant areas of fiqh.

Despite their important contributions to the use of artificial

intelligence in education, these studies leave several conceptual gaps that warrant closer examination. First, most research continues to position generative AI, particularly ChatGPT, as a means of improving instructional effectiveness, digital literacy, and student learning outcomes, without connecting its use to the development of life skills relevant to adolescence. Second, AI implementation in Islamic senior secondary schools has generally focused on Islamic education broadly or on selected subjects, while its application to fiqh particularly the study of ṭahārah remains limited. Yet, ṭahārah encompasses more than the rules of ritual purification required for valid worship; it also addresses puberty, menstruation, postpartum bleeding (*nifās*), irregular non-menstrual bleeding (*istiḥādah*), wet dreams, ritual bathing, and reproductive hygiene, all of which are closely related to adolescent reproductive health literacy. Third, research on reproductive health literacy remains dominated by public health and health education perspectives, with limited integration of Islamic values through contextually grounded fiqh instruction. Consequently, previous studies have not fully captured the potential of ṭahārah as a pedagogical domain in which digital literacy, adolescent reproductive health literacy, and the internalization of Islamic values can be integrated within a coherent learning process.

Against this background, ChatGPT needs to be understood not merely as a digital instructional medium but as a form of AI-assisted learning that can support the teaching of ṭahārah within the fiqh curriculum. A significant research gap remains because existing scholarship has yet to provide an integrated account of how ChatGPT-assisted ṭahārah instruction can foster adolescent reproductive health literacy grounded in Islamic values at the Islamic senior secondary school level. Addressing this gap, the present study advances the AI-Assisted Taharah Learning approach, which integrates artificial intelligence into the teaching of ṭahārah to strengthen students' understanding of fiqh while simultaneously developing Islamic value-based reproductive health literacy. This approach positions ChatGPT not only as a supplementary learning tool but also as a dialogic medium through which students can contextualize fiqh concepts, critically evaluate digital information, and internalize Islamic values concerning reproductive health, personal responsibility, and dignity.

Building on this foundation, the study addresses three interrelated research questions. (1) How is ChatGPT implemented as an AI-assisted learning tool in the teaching of Fiqh al-Ṭahārah at the Islamic senior secondary school level? (2) What pedagogical affordances and limitations emerge from the use of ChatGPT-assisted Fiqh al-Ṭahārah instruction, particularly in relation to adolescent reproductive health literacy and Islamic value formation? (3) How can the implementation of ChatGPT-assisted Fiqh al-Ṭahārah learning be conceptualized into an AI-Assisted Taharah Learning Model for developing adolescent reproductive health literacy grounded in Islamic values? These questions correspond respectively to the three analytical dimensions examined in the Results and Discussion: the implementation of ChatGPT as an AI-assisted learning tool, its pedagogical affordances and limitations, and the development of the AI-Assisted Taharah Learning Model. Theoretically, the study contributes to the development of Fiqh pedagogy by bringing artificial intelligence, ṭahārah instruction, and reproductive health literacy together within an adaptive and contextually grounded learning framework. Practically, its findings provide a reference for Fiqh teachers in Islamic senior

secondary schools seeking to design AI-assisted instructional strategies that strengthen not only students' digital literacy but also their knowledge, attitudes, and responsible practices concerning reproductive health in accordance with Islamic teachings.

Taken together, the study makes three interrelated contributions to the literature on artificial intelligence in Islamic education. First, it extends research on AI-assisted Islamic education by examining ChatGPT not at the level of general technological adoption, but within the specific pedagogical domain of Fiqh, particularly the topic of ṭahārah, where issues of puberty, menstruation, ritual purification, and reproductive hygiene intersect with adolescents' everyday health experiences. Second, it connects AI-assisted Fiqh learning with adolescent reproductive health literacy by showing how ChatGPT can function as a dialogic learning medium through which students explore sensitive questions, contextualize fiqh concepts, and critically evaluate AI-generated information under teacher guidance and verification against authoritative sources. Third, the study contributes an AI-Assisted Taharah Learning Model that integrates AI-assisted inquiry, teacher facilitation, source verification, and Islamic value internalization as interconnected components of the learning process. Thus, the contribution of this study lies not simply in introducing ChatGPT into Fiqh instruction, but in conceptualizing a teacher-mediated approach in which artificial intelligence, ṭahārah knowledge, reproductive health literacy, and Islamic epistemic and ethical principles are brought together within a contextually grounded madrasah learning environment. Compared with prior research, which has predominantly examined artificial intelligence in Islamic education at a general level or focused on ChatGPT as a supplementary instructional technology, the originality of this study lies in integrating these dimensions specifically within ṭahārah learning and adolescent reproductive health literacy in a madrasah context. This integration is synthesized into the AI-Assisted Taharah Learning Model, which constitutes the principal original contribution of the study to the emerging literature on AI-assisted Islamic education.

2. Methods

This study adopted a qualitative interpretive approach and a single-case study design to examine ChatGPT-assisted Fiqh al-Ṭahārah learning in its natural educational and Islamic context at MA Al Ishlah. The qualitative approach was appropriate for understanding the meanings, interactions, and pedagogical processes involved, while the single-case design enabled an integrated examination of ChatGPT implementation, its pedagogical affordances and limitations, and the development of a contextually grounded learning model within one bounded setting. Following the case-study perspective of a case as a bounded phenomenon situated in a real-life context [15], the ChatGPT-assisted Fiqh al-Ṭahārah learning process at MA Al Ishlah constituted the primary unit of analysis. The principal, Fiqh teachers, Islamic boarding school leader, and students were treated as sources of evidence for understanding this unit of analysis, while classroom observations, interviews, documents, and ChatGPT interaction logs provided complementary forms of evidence. This design enabled the researchers to examine AI-assisted Fiqh learning as an integrated pedagogical phenomenon, including the interactions among teachers, students, AI-generated information, instructional content, and

the surrounding Islamic educational context, rather than as a collection of individual participant experiences.

The study was conducted at MA Al Ishlah in Bacem Village, Banjarejo District, Blora Regency, Central Java, Indonesia. The site was purposively selected for three reasons. First, the madrasah operates within an Islamic boarding school environment, providing a strong Islamic educational culture for fiqh instruction. Second, it had begun incorporating AI, particularly ChatGPT, as a supplementary learning tool. Third, the madrasah had implemented the Adolescent Reproductive Health Teaching Module issued by the Ministry of Religious Affairs of the Republic of Indonesia and integrated it into relevant areas of instruction, including *ṭahārah*. These characteristics made the site an information-rich context for examining the relationship among fiqh education, adolescent reproductive health literacy, and AI-assisted learning.

Participants were selected purposively based on their direct involvement in the implementation of ChatGPT-assisted Fiqh al-Ṭahārah learning at MA Al Ishlah. The study involved 15 participants, comprising one principal, three Fiqh teachers, one Islamic boarding-school leader, and ten students representing Grades X–XII. Participants were included if they were directly involved in or experienced the implementation of the learning activities under investigation, while individuals not directly involved in the implementation were excluded. Data were collected through classroom observations, semi-structured interviews, document analysis, and examination of ChatGPT interactions. These sources provided complementary evidence concerning the implementation of AI-assisted Fiqh learning, teacher–student interactions, pedagogical affordances and limitations, and students’ engagement with *ṭahārah* and reproductive health content. The researcher served as the primary instrument and was directly involved in data collection, interpretation, and analysis [16]. This involvement enabled the phenomenon to be understood within its social, cultural, and pedagogical context. Interview protocols, observation sheets, field notes, photographic records, and interview transcripts were used as supporting instruments to ensure systematic and consistent data collection.

Prior to data collection, the semi-structured interview protocol and classroom observation sheet were reviewed through academic discussion with colleagues and academic supervisors with relevant expertise in qualitative educational research and Islamic education. The review assessed the clarity, relevance, contextual appropriateness, and alignment of the interview questions and observation indicators with the research objectives. The reviewers’ suggestions were used to refine the wording, sequence, and scope of the instruments before fieldwork. No formal pilot test, psychometric reliability coefficient, or inter-rater agreement was obtained, as the instruments were designed as qualitative supporting instruments and the researcher served as the primary research instrument. Data credibility was instead strengthened through methodological and source triangulation, iterative verification, and comparison of interview, observation, documentary, and ChatGPT interaction data.

The data were analyzed using the interactive model developed by Miles, Huberman, and Saldaña, which comprises three interrelated processes: data condensation, data display, and conclusion drawing and verification [17]. Analysis proceeded iteratively and concurrently from the beginning of data collection through the completion of the study, allowing the

researchers to continually explore, interpret, and verify emerging findings. To strengthen the credibility of the findings, the study employed methodological and source triangulation. Methodological triangulation involved comparing evidence obtained from observations, interviews, documents, and ChatGPT interaction logs, while source triangulation entailed examining the convergence of information provided by the madrasah principal, fiqh teachers, the Islamic boarding school leader who also served as chair of the foundation and students. Together, these strategies strengthened the consistency, credibility, and trustworthiness of the research findings.

3. Result and Discussion

3.1. Implementing ChatGPT as an AI-Assisted Learning Tool in the Teaching of Fiqh al-Ṭahārah

The findings indicated that the integration of artificial intelligence (AI) into fiqh instruction at MA Al Ishlah formed part of an institutional policy designed to support educational transformation in the digital era while preserving Islamic values. The madrasah principal regarded ChatGPT as an AI-assisted learning tool that enabled students to access information, develop critical thinking skills, and broaden their learning resources. However, the teacher retained primary epistemic authority for verifying the accuracy and religious validity of the material. As the madrasah principal explained:

“We do not view AI as a replacement for teachers, but as a means of helping students learn more independently. Nevertheless, all information obtained from ChatGPT must be checked against the Qur’an, hadith, authoritative fiqh texts, and teachers’ explanations to prevent misunderstandings.”

This institutional policy was supported by the governing foundation and the affiliated Islamic boarding school, both of which encouraged the selective use of technology while maintaining the Islamic scholarly tradition. The integration of AI was also consistent with the Merdeka Curriculum, which emphasizes twenty-first-century competencies, and with the Ministry of Religious Affairs’ Adolescent Reproductive Health Teaching Module, which had been incorporated into the teaching of *ṭahārah* [18]. Consequently, students learned not only the fiqh rulings concerning menstruation, postpartum bleeding (*nifās*), irregular non-menstrual bleeding (*istihādah*), wet dreams, and ritual bathing, but also the scientific dimensions of reproductive health within an Islamic framework. These findings indicate that the adoption of ChatGPT at MA Al Ishlah did not emerge solely from an individual teacher’s initiative; rather, it was institutionally supported through the integration of digital transformation, curriculum development, and a pesantren-based educational ethos.

Table 1 Implementation Framework for ChatGPT as an AI-Assisted Learning Tool in the Teaching of Fiqh al-Ṭahārah

Learning Stage	Teacher and Student Activities	Role of ChatGPT
Pre-Learning	Teacher activities: • Formulating the learning objectives • Preparing the teaching module on <i>ṭahārah</i> • Designing prompts	Providing preliminary information, relevant case examples, and supplementary

Learning Process	- Establishing ethical guidelines for AI use - Connecting the lesson content with the Ministry of Religious Affairs' Adolescent Reproductive Health Module	references related to the topic under study
	Student activities: - Preparing the required learning devices - Understanding the learning objectives - Becoming familiar with the use of ChatGPT	
	Teacher activities: - Facilitating classroom discussion - Guiding students in formulating prompts - Verifying ChatGPT-generated responses against the Qur'an, hadith, fiqh texts, and scientific sources - Connecting tahārah with the context of adolescent reproductive health	Generating interactive responses, conceptual explanations, case illustrations, and alternative perspectives for classroom discussion
Reflection	Student activities: - Submitting questions to ChatGPT - Discussing the generated responses - Comparing the responses with relevant sources - Expressing their interpretations and opinions - Seeking clarification from the teacher	
	Teacher activities: - Leading the learning reflection - Correcting misconceptions - Reinforcing key fiqh concepts - Evaluating the use of AI throughout the learning process	Assisting students in producing summaries, addressing follow-up questions, and providing feedback in response to reflective prompts
	Student activities: - Reflecting on their learning experiences - Synthesizing the lesson content - Evaluating the accuracy of AI-generated information - Relating the material to everyday life	

As shown in Table 1, ChatGPT was implemented as an AI-assisted learning tool in the teaching of tahārah at MA Al Ishlah

through three interconnected stages: pre-learning, the learning process, and reflection. The findings indicate that ChatGPT did not operate as an autonomous instructional medium; instead, it was embedded throughout the learning cycle, with the teacher retaining primary responsibility for directing and regulating the process. This arrangement enabled students not only to obtain information rapidly through AI but also to develop critical engagement through clarification, discussion, and reflection on the material under study. Thus, the integration of AI at MA Al Ishlah was not intended to substitute for the teacher but to strengthen fiqh instruction through structured collaboration among AI, teachers, and students.

An interview with one of the fiqh teachers corroborated this finding. The teacher explained:

"We use ChatGPT as a learning companion for students, not as a replacement for the teacher. Students are free to ask questions about tahārah, but they must subsequently discuss the responses with the teacher and compare them with the Qur'an, hadith, fiqh texts, and the textbooks used at the madrasah. In this way, they do not simply accept AI-generated answers without verification."

This finding indicates that the effectiveness of AI-assisted learning depends not solely on ChatGPT's capacity to generate information but also on an instructional design that integrates AI functions into a structured pedagogical process. During the pre-learning stage, the teacher established students' readiness to learn while cultivating ethical awareness concerning the use of AI. During the learning process, ChatGPT served as a dialogic partner that supported the exploration of fiqh concepts, while the teacher validated the generated information against authoritative Islamic sources.

This finding was further supported by students' experiences during ChatGPT-assisted learning of fiqh al-tahārah. One student explained that ChatGPT provided a more comfortable space for asking questions about puberty and reproductive health issues that the student had previously considered too sensitive to discuss openly. The student stated:

"I sometimes feel embarrassed asking questions directly in class, particularly when the lesson concerns menstruation and reproductive health. With ChatGPT, I can ask my questions first and read the explanation at my own pace. After discussing the response with the teacher, I developed a clearer understanding that tahārah is not only about whether an act of worship is valid, but also about maintaining personal hygiene and health."

A different experience was reported by another student, who emphasized the importance of verifying the information generated by ChatGPT. The student explained:

"At first, I thought that wet dreams were discussed only in relation to the obligation to perform ghusl [ritual bathing]. After asking ChatGPT and discussing its response with the teacher, I understood that the topic also relates to bodily changes, personal hygiene, and responsibility for caring for oneself. However, I did not immediately assume that ChatGPT's answer was correct. I still compared it with the fiqh textbook and consulted the teacher because AI-generated explanations can sometimes be too general."

These two accounts reveal complementary functions within the learning process. First, ChatGPT provided a more personal space for initial exploration, giving students greater confidence to ask questions about puberty and reproductive health. Second, teacher-guided discussion and verification transformed the

preliminary information generated by AI into knowledge that was more accurate, contextually appropriate, and consistent with authoritative fiqh sources. Adolescent reproductive health literacy was therefore developed not merely through increased access to information, but through students’ ability to understand, evaluate, and apply that information responsibly within an Islamic value framework.

The reflection stage subsequently enabled students to reassess the information they had obtained, relate it to their everyday experiences, and internalize the Islamic values embedded in the study of ṭahārah. These findings confirm that ChatGPT functioned as a learning partner, while the teacher retained pedagogical and epistemic authority by directing the learning process, verifying the validity of the knowledge presented, and facilitating the internalization of Islamic values within fiqh instruction.

These findings further demonstrate that the successful implementation of AI-assisted learning is determined not by the presence of technology alone, but by institutional policy support, teacher preparedness, and a pedagogical framework that guides its responsible use. This interpretation is consistent with recent studies indicating that ChatGPT offers its greatest educational value when positioned as a learning companion under teacher guidance rather than as a substitute for educators [19], [20]. Existing scholarship likewise emphasizes that effective AI integration requires clear institutional policies, strengthened AI literacy, and systematic procedures for academic verification to reduce the risks associated with inaccurate or biased information [21], [22].

At MA Al Ishlah, this implementation acquired a distinctive character because it was developed within a pesantren-based educational culture, in which AI-generated information had to be verified against the Qur’an, hadith, fiqh texts, and teacher explanations. The findings therefore show that integrating ChatGPT into fiqh instruction represents more than technological innovation; it constitutes a contextually grounded approach to AI use that brings digital transformation into dialogue with Islamic epistemic authority and the pedagogical values of the madrasah.

3.2. Pedagogical Affordances and Limitations of

ChatGPT-Assisted Fiqh al-Ṭahārah Instruction

The findings revealed two interrelated dimensions of ChatGPT-assisted fiqh al-ṭahārah instruction at MA Al Ishlah Banjarejo Blora: its pedagogical affordances and its implementation limitations. Evidence from interviews with the madrasah principal, teachers, and students, classroom observations, and analyses of student–ChatGPT interactions indicated that the technology created opportunities for learning that was more interactive, exploratory, and responsive to sensitive questions concerning ṭahārah and adolescent reproductive health. At the same time, ChatGPT-generated responses did not consistently provide sufficient accuracy, depth, or clarity regarding their fiqh-based legal foundations. Accordingly, ChatGPT was positioned neither as a substitute for the teacher nor as an authoritative source for determining Islamic legal rulings, but as a supplementary tool for facilitating students’ initial exploration. Its pedagogical value was therefore contingent on teacher guidance, students’ ability to formulate appropriate questions, and the verification of AI-generated responses against credible fiqh sources.

Through data condensation, coding, and cross-source comparison, the findings concerning ChatGPT use were organized into two principal analytical categories. The first comprised pedagogical affordances, including a relatively safer space for students to ask questions, convenient access to preliminary explanations, greater engagement and learning autonomy, connections between ṭahārah and adolescent reproductive health, and the development of students’ capacity to evaluate digital information critically. The second category encompassed several limitations: responses that were sometimes overly general or insufficiently attuned to the context of a question, the risk of inaccurate information, inadequate representation of diverse positions within fiqh, and the dependence of response quality on students’ ability to formulate effective prompts. ChatGPT use also required teacher oversight, verification against credible sources, and adequate access to digital devices and the internet. These categories indicate that ChatGPT’s affordances and limitations did not operate independently but interacted in shaping the pedagogical quality of its use. Table 2 summarizes each category, its empirical manifestations, and its pedagogical implications.

Table 2 Pedagogical Affordances and Limitations of ChatGPT-Assisted Fiqh al-Ṭahārah Instruction

Findings Dimension	Key Empirical Finding	Pedagogical Significance	Conditions or Limitations
A relatively safer space for asking questions	Students were more willing to ask ChatGPT about menstruation, wet dreams, and reproductive hygiene.	Reduced psychological barriers to discussing sensitive topics.	Private interaction with AI still required teacher guidance and supervision.
Access to preliminary explanations	ChatGPT provided rapid responses in language that students found relatively easy to understand.	Helped students develop an initial understanding before participating in classroom discussion.	Responses could be overly general, incomplete, or insufficiently aligned with the fiqh context.
Learning engagement and autonomy	Students could formulate follow-up questions according to their learning needs.	Encouraged active and exploratory learning.	The quality of learning depended partly on students’ ability to formulate appropriate questions.
Integration of fiqh and reproductive health	The concepts of menstruation, janābah, istiḥāḍah, personal hygiene, and ghusl were connected to adolescents’ biological development.	Made the study of ṭahārah more contextually relevant.	Oversimplifying the relationship between fiqh and health could produce misconceptions.

Critical literacy	digital	Students compared responses with teacher explanations and ChatGPT-generated answers and fiqh sources.	Developed information-evaluation and source-verification skills.	Without teacher facilitation, students could treat AI-generated responses as authoritative conclusions.
Epistemic authority and diversity in fiqh	and within	ChatGPT sometimes generated answers without adequately identifying their legal foundations or differences among Islamic legal schools.	Created opportunities to discuss the authority and validation of Islamic knowledge.	ChatGPT could not replace teachers, fiqh texts, or authoritative sources of Islamic law.
Access to technology	to	Digital devices enabled learning activities to extend beyond the classroom.	Broadened opportunities for flexible and independent learning.	Implementation depended on access to appropriate devices, reliable internet connectivity, and adequate digital competence.

The most salient finding was that ChatGPT created an initial sense of psychological safety that enabled students to raise sensitive questions concerning menstruation, istiḥāḍah, wet dreams, janābah, and reproductive hygiene. In face-to-face classroom settings, students did not always feel comfortable discussing these issues openly because they experienced embarrassment, feared being ridiculed, or anticipated negative judgment from their peers. Initial interaction with ChatGPT allowed them to formulate their questions more privately before bringing them into a teacher-facilitated learning process. As one student explained:

"I wanted to ask about menstruation and reproductive hygiene, but I felt embarrassed about raising these questions directly in front of my classmates. ChatGPT allowed me to ask them privately first, and the teacher's subsequent explanation helped me understand that ṭahārah is not limited to ritual purification for worship; it also involves maintaining personal hygiene and health."

A further pedagogical affordance lay in ChatGPT's capacity to provide rapid responses and explanations responsive to students' initial levels of understanding. When a response appeared overly complex, students could ask follow-up questions, request simpler terminology, or seek examples more closely connected to everyday experience. This interaction helped accommodate differences in students' comprehension and enabled them to revisit concepts in fiqh al-ṭahārah beyond the time constraints of classroom instruction. Personalization in this context, however, should be understood proportionately as the system's responsiveness to the content and structure of a prompt, rather than as comprehensive pedagogical personalization capable of recognizing each student's background, psychological development, health needs, and religious circumstances. ChatGPT-generated responses therefore functioned primarily as preliminary explanations that helped students identify areas of uncertainty, while the interpretation and determination of fiqh rulings continued to require teacher guidance and verification against authoritative Islamic sources.

The limitations of ChatGPT-assisted fiqh al-ṭahārah instruction were identified across three interrelated areas: informational accuracy, epistemic authority, and users' competence in formulating prompts. Although ChatGPT-generated responses were often expressed in persuasive language, they were not necessarily accurate, contextually appropriate, or supported by verifiable references. When addressing sensitive issues, the system could also conflate medical, cultural, and fiqh-based legal dimensions without drawing clear conceptual distinctions among them. This concern was reflected in the following student's account:

"ChatGPT's answers were sometimes too general, so I

needed to consult the teacher and compare them with the fiqh textbook to ensure that I had not misunderstood the material."

Verification was particularly important because fiqh is grounded in textual evidence, methods of istinbāt (legal derivation), the contexts in which rulings are applied, and diverse positions across Islamic legal schools—dimensions that AI does not always explain adequately. Reducing khilāfiyyah issues, on which jurists legitimately differ, to a single answer may obscure the Islamic scholarly tradition of reasoned argumentation. ChatGPT therefore cannot be accorded religious authority equivalent to that of teachers, qualified scholars, or accountable fiqh sources. Response quality was also strongly shaped by the precision of the questions posed; students who had not yet mastered fiqh terminology could formulate ambiguous prompts and consequently receive irrelevant or misleading answers. Teachers must therefore act as epistemic mediators by modeling effective prompts, establishing boundaries for AI use, clarifying differences of scholarly opinion, and guiding verification procedures so that AI-generated responses are not accepted as authoritative conclusions.

Additional limitations concerned user competence and the technical and ethical conditions surrounding ChatGPT use. The quality of AI-generated responses depended heavily on prompt clarity, while students' limited command of fiqh terminology could lead to ambiguous questions and less relevant answers. Prompt formulation, appropriate boundaries of use, and information-verification procedures therefore need to be taught as components of AI literacy. Implementation was also constrained by unequal access to digital devices and reliable internet connectivity, the risk of dependence on instant responses, and reduced engagement with primary and authoritative sources. Because the lessons addressed reproductive health, students also required protection against disclosing personal data, encountering age-inappropriate language, and being exposed to information that could compromise their psychological well-being. These findings underscore the need for madrasah-level guidelines that ensure safe and ethical AI use, equitable access, student protection, and alignment with Islamic values.

The findings concerning a relatively safe space for questioning, rapid access to information, interactivity, and responsive explanations can be interpreted through the concept of pedagogical affordances the possibilities for learning-related action that a technology offers within a particular pedagogical context. Recent scholarship indicates that ChatGPT can support dialogue, information access, feedback, and more personalized learning, although these affordances are accompanied by limitations that require deliberate pedagogical management [23]. Generative AI does not automatically produce meaningful learning; the realization of its educational potential depends on

the alignment among technological features, learning objectives, student needs, user competence, and teacher-designed activities [24]. In this study, ChatGPT's capacity to accommodate sensitive questions, sustain follow-up dialogue, and provide preliminary explanations acquired pedagogical value only when embedded in structured fiqh al-tahārah instruction, verified against credible sources, and mediated by the teacher. The teacher's role thus remains indispensable in establishing learning objectives, assessing the accuracy of information, and adapting AI use to students' needs and contexts [25].

The findings concerning follow-up questioning, case exploration, discussion, information comparison, and response verification indicate that ChatGPT can support constructivist and inquiry-based learning when students are positioned as active constructors of knowledge rather than passive recipients of information. Within this process, students developed their understanding of fiqh al-tahārah by formulating questions, testing responses, identifying uncertainties, revising their interpretations, and reflecting on their dialogue with AI. This interaction positioned ChatGPT as a co-inquirer or dialogic partner that provided cognitive support throughout the inquiry process [26]. However, AI-assisted knowledge construction does not necessarily produce accurate understanding, as unguided acceptance of generated responses may lead to misconceptions and technological dependence. Teacher involvement therefore remains essential for providing instructional scaffolding, directing the dialogue, and validating students' conclusions [27].

This practice of verification also exemplifies AI literacy, which encompasses the ability to understand AI's functions and limitations, use it appropriately, evaluate the quality of its outputs, and consider the ethical implications of its use [28]. ChatGPT therefore did more than broaden students' access to information; it also offered a means of cultivating critical AI literacy when students were consistently required to identify potential bias and error, compare generated responses with credible fiqh and health sources, and justify the evidentiary basis of the knowledge they used [29].

From an Islamic educational perspective, the use of ChatGPT in fiqh al-tahārah instruction must be situated within an integrated framework of religious knowledge, health education, and the cultivation of adab (ethical conduct). Technology should therefore serve not merely to accelerate access to information but also to develop students' responsibility for maintaining cleanliness, health, personal dignity, and bodily well-being as an amānah (divinely entrusted responsibility). This orientation is consistent with an Islamic ethical approach that frames AI use through the principles of trust, moral accountability, and human well-being [30]. Within this framework, the teacher retains the interconnected roles of mu'allim (educator), murabbī (formative moral mentor), knowledge validator, and ethical guide, whereas ChatGPT remains a supporting tool without the authority to determine religious truth. This distinction is particularly important because AI use in religious education carries risks of oversimplifying scholarly traditions, diminishing spiritual values, and generating outputs whose theological foundations remain unclear [31].

The findings corroborate previous research showing that

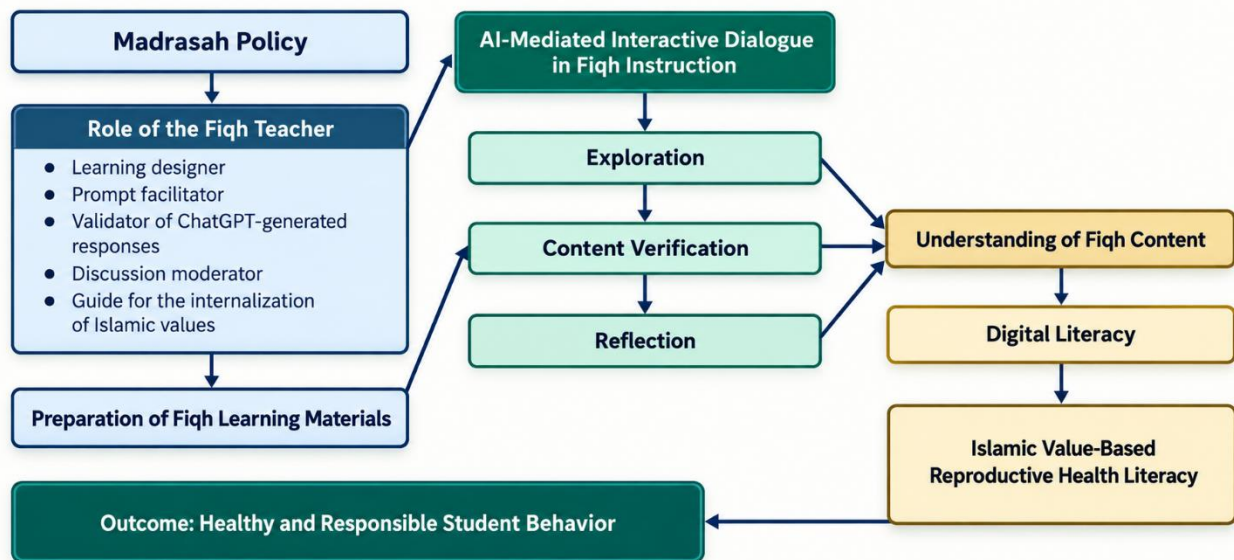
ChatGPT can broaden access to information, facilitate interaction, and provide learning support, while simultaneously introducing risks related to inaccuracy, bias, dependence, and ethical misconduct [23]. They extend research on chatbot use in Islamic education by demonstrating the pedagogical value of a more personal questioning space for sensitive topics in fiqh and reproductive health. At the same time, the findings qualify broader claims about the benefits of AI by showing that its outputs must remain subject to scholarly verification, the adab of seeking knowledge, teacher guidance, and the principles of maqāsid al-sharī'ah [32]. The distinctive contribution of this study therefore lies in conceptualizing the relationship among AI accessibility, the sensitivity of reproductive health education, and Islamic epistemic authority within fiqh al-tahārah instruction.

Overall, ChatGPT offered a space for preliminary exploration, a medium for dialogue, and a bridge between fiqh al-tahārah and adolescent reproductive health literacy. These affordances were conditional, however, because they were constrained by response accuracy, the depth of fiqh explanations, the representation of diverse Islamic legal schools, prompt quality, technological access, and ethical risks. Its pedagogical value therefore depended on instructional design, source verification, teacher facilitation, and the internalization of Islamic values. The synthesis of these implementation processes, affordances, and limitations provided the foundation for formulating the AI-Assisted Taharah Learning Model.

3.3. The AI-Assisted Taharah Learning Model for Developing Reproductive Health Literacy Grounded in Islamic Values

The findings showed that using ChatGPT in the teaching of fiqh al-tahārah not only expanded students' access to Islamic knowledge but also shaped a more contextual, dialogic, and reflective learning experience. Rather than relying primarily on conventional content delivery, AI integration enabled students to explore fiqh-related reproductive health issues including menstruation, postpartum bleeding (*nifās*), irregular non-menstrual bleeding (*istihādah*), wet dreams, ghusl, and reproductive hygiene through questioning, discussion, verification, and reflection on the responses they received. Throughout this process, the teacher retained a central role as facilitator, knowledge validator, and guide for the internalization of Islamic values. These findings establish fiqh al-tahārah as a relevant pedagogical domain for developing adolescent reproductive health literacy because it brings Islamic legal understanding into dialogue with scientifically grounded and contextually relevant health knowledge.

The synthesis of these findings resulted in the AI-Assisted Taharah Learning Model, which illustrates the interrelationships among AI-assisted inquiry, teacher facilitation, fiqh al-tahārah instruction, reproductive health literacy, and the internalization of Islamic values. The conceptual model is presented in Figure 1.



Gambar 2 Conceptual Framework of the AI-Assisted Taharah Learning Model for Developing Islamic Value-Based Reproductive Health Literacy

The AI-Assisted Taharah Learning Model for Developing Islamic Value-Based Reproductive Health Literacy demonstrates that the successful integration of Artificial Intelligence into Islamic education depends not on the mere use of technology, but on the systemic interconnection of five mutually reinforcing components. Teacher facilitation constitutes the model's foundational component, ensuring that the entire learning process remains aligned with Islamic pedagogical and epistemological principles through the teacher's roles as facilitator, validator, and guide of student reflection. Within this framework, AI-assisted inquiry serves as a space for intellectual exploration in which students can raise questions more openly, consider alternative explanations, and develop critical thinking skills while continuing to verify AI-generated information against authoritative Islamic sources. This exploratory process is subsequently integrated into Taharah learning, enabling Fiqh content to move beyond a narrow focus on legal provisions governing acts of worship and become a contextual medium through which students understand biological changes, personal hygiene, and the moral responsibilities associated with adolescent development.

This integration subsequently develops reproductive health literacy, understood as students' ability to access, understand, evaluate, and appropriately apply reproductive health information from both scientific and Islamic legal perspectives. Ultimately, the entire process culminates in the internalization of Islamic values, including purity (taharah), the protection of personal dignity (hifz al-'ird), the preservation of lineage (hifz al-nasl), moral responsibility, and proper ethical conduct (adab) in the use of digital technologies as integral dimensions of Muslim character formation. Accordingly, the model developed in this study positions ChatGPT not merely as a learning-support tool but as a pedagogical catalyst that connects Fiqh learning, reproductive health literacy, and the internalization of Islamic values within a coherent, contextualized learning ecosystem responsive to adolescents' needs in the age of Artificial

Intelligence.

The model developed in this study extends the current discourse on Generative Artificial Intelligence in education by demonstrating that AI effectiveness depends not only on its capacity to provide rapid access to information but also on the integration of pedagogical design, teacher agency, subject-matter content, and the internalization of Islamic values. This finding reinforces previous studies suggesting that ChatGPT is more effectively positioned as a learning companion that supports learning through dialogic interaction and adaptive feedback, while teachers retain pedagogical authority to validate information and guide the learning process [33], [34]. Research on the use of Generative AI in reproductive health education similarly indicates that AI can expand access to sensitive information that is often difficult to discuss openly; nevertheless, response accuracy, source transparency, and systematic verification remain essential prerequisites for its responsible use [35].

In contrast to these earlier studies, the present study demonstrates that the Taharah chapter within Fiqh can serve as a pedagogical bridge connecting reproductive health literacy with Islamic values through teacher-mediated use of ChatGPT. Accordingly, this study not only offers an approach to integrating AI into madrasah learning but also proposes a conceptual model that brings together teacher facilitation, AI-assisted inquiry, Taharah learning, reproductive health literacy, and Islamic value internalization as an interconnected whole. The model demonstrates that digital transformation in Islamic education need not displace teachers' epistemic authority or Islamic legal and ethical principles; instead, it can function as a pedagogical instrument that makes Fiqh learning more contextual, reflective, and responsive to adolescents' developmental needs in the age of Artificial Intelligence.

4. Conclusion

This study concludes that ChatGPT-assisted Fiqh Tahārah learning at MA Al Ishlah Banjarejo Blora was implemented through three stages: learning preparation, inquiry-based interaction, and reflection and verification. Within this sequence, ChatGPT served as an initial exploratory tool that enabled students to raise sensitive questions, obtain responsive explanations, and connect tahārah rulings with adolescent reproductive health. Its use revealed five principal pedagogical affordances: a psychologically safer space for asking questions, flexible access to explanations, contextualization of Fiqh content, greater learning engagement, and the development of critical AI literacy. Nevertheless, its implementation was constrained by potential inaccuracies, oversimplification of differences among Islamic legal schools, dependence on prompt quality, unequal technological access, and privacy and ethical concerns. Synthesizing these findings produced the AI-Assisted Taharah Learning Model, which integrates AI-assisted inquiry, teacher facilitation, verification through authoritative Fiqh and health sources, and the internalization of Islamic values as inseparable components. Within this model, ChatGPT functions as a learning-support tool, while the teacher retains pedagogical, epistemic, and moral authority.

The significance of this study lies in extending Fiqh education beyond mastery of purification rulings toward the development of reproductive health literacy that is religiously grounded, contextual, critical, and responsible. The resulting model can be operationalized in madrasahs through prompt-design guidelines, response-verification procedures, rubrics for evaluating AI-generated information, student data-protection protocols, and teacher training that integrates Fiqh knowledge with credible health information. Its implementation must ensure age appropriateness, uphold proper conduct in seeking knowledge, acknowledge the diversity of Fiqh perspectives, and safeguard students' psychological well-being. Because this study examined a single madrasah, further research should employ multisite studies, cross-madrasah comparisons, and longitudinal or quasi-experimental designs to assess the model's effects on Fiqh understanding, reproductive health literacy, AI literacy, and clean and responsible health behavior.

Acknowledgments

The authors extend their sincere gratitude to Institut Agama Islam (IAI) Khozinatul Ulum Blora and its entire academic community for the academic, administrative, and moral support provided throughout the research and preparation of this article. The authors also gratefully acknowledge the leadership of MA Al Ishlah Banjarejo Blora, the Fiqh teachers, the participating students, and all individuals who granted permission, contributed their time, and participated in the interviews, observations, and data-collection activities. Appreciation is further extended to colleagues and academic supervisors whose scholarly feedback contributed to the refinement of this manuscript.

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