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Developing a Digitally Integrated Critical-Contextual Learning Model of Ushul Fiqh for Future Islamic Education Teachers

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Abstract. This study addressed epistemological limitations in *ushul fiqh* instruction among prospective Islamic education teachers, especially their difficulty in contextualizing legal reasoning in the digital era. The study aimed to develop a critical-contextual, digitally integrated learning model to enhance *ushuli* reasoning. A mixed-methods approach with an exploratory sequential design was employed. The research consisted of two phases. The qualitative phase involved field observations, focus group discussions, and semi-structured interviews. In the quantitative phase, a product trial was performed to evaluate model effectiveness. A total of 60 students and 10 lecturers from three Islamic education programs in West Java and Banten provinces, Indonesia were purposively selected. Qualitative findings revealed gaps in engagement, digital integration, and relevance. This informed the formulation of the SMART learning model—strategic, meaningful, active, reflective, and transformative five-stage instructional syntax model designed to build critical-contextual legal reasoning. Quantitative results demonstrated significant improvement in learning outcomes (pre-test: M = 65.87; post-test: M = 86.13; $p < .001$), confirming the model's effectiveness. This study offers an original contribution by presenting an evidence-based instructional model that aligns classical *ushul fiqh* with innovative, digitally driven pedagogy for Islamic education reform.

Keywords: digital technology; Islamic religious education; learning model; *ushul fiqh*; *ushuli* reasoning

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1. Introduction

Ushul fiqh is a core treasure of Islamic scholarship, serving as a methodological foundation for formulating Islamic law rationally and systematically (Albelahi et al., 2018). In Islamic higher education institutions in Indonesia, particularly within Islamic religious education (IRE) programs, it is a compulsory subject for prospective IRE teachers. However, observations and preliminary interviews at three state universities have revealed that *ushul fiqh* instruction has not been optimized to cultivate students' analytical, critical, and contextual thinking skills. More than 70% of the material is delivered conventionally, focusing on memorizing legal maxims and reading classical texts, while problem-solving and contextual discussions are rarely used (Turmudzi et al., 2025).

Consequently, instruction often fails to connect Islamic legal principles with contemporary social dynamics (Hamdani & Rahman, 2022). To address this, it is necessary to strengthen *ushuli* reasoning—a form of methodological thinking developed through legal derivation (*istinbāṭ*) by employing foundational legal sources such as *qiyās* (analogical reasoning), *istihsān* (juridical preference), and *istishlāh* (public interest) within the framework of *ijtihād* (independent legal reasoning) (Bahiyah, 2024). This reasoning ability enables future teachers to critically and contextually interpret religious issues and offer solution-oriented insights (Lohlker, 2021). Without *ushul*i reasoning, they risk falling into rigid legal-formalist thinking patterns (Anshori & Abdurrahman, 2025). Furthermore, integrating digital technology into *ushul fiqh* instruction has become an essential step in enhancing interactivity and critical thinking skills (Zulkifli, 2023).

Despite the recognized significance of *ushul fiqh* as a methodological foundation in Islamic legal education (Mujahid, 2021), existing studies predominantly emphasize normative content delivery with limited integration of pedagogical innovation or digital technology (Daji, 2022). Several empirical investigations have focused on enhancing *ijtihad* skills through problem-based approaches (Abdul Khalil et al., 2024), yet these efforts often lack a structured instructional model tailored for prospective Islamic education teachers in the digital era.

Moreover, while critical pedagogy has been explored in religious education (Darder et al., 2023), its contextual adaptation to *ushul fiqh* instruction remains underdeveloped. The absence of empirically tested technology-integrated learning designs addressing the construction of *ushuli* reasoning represents a significant gap—especially in light of the increasing demand for adaptive and socially responsive Islamic legal literacy in modern educational settings (Khalil, 2023).

To address this identified gap and respond to the pedagogical challenges in teaching *ushul fiqh* in the digital era, this study aimed to design a learning model based on a critical-contextual approach to digital integration. The critical-contextual approach refers to a pedagogical orientation that encourages students to critically examine Islamic legal concepts by linking them with real-life social, cultural, and technological issues. It is grounded in critical pedagogy and contextual learning theories that emphasize empowerment through reflection, relevance, and social engagement (Cabero-Almenara et al., 2022; McLaren, 2023). The model seeks to develop reflective, responsive, and applicable Islamic legal

reasoning among prospective IRE teachers. Reconstructing *ushul fiqh* pedagogy is necessary to move beyond rote memorization toward methodological responses to contemporary socio-technological dynamics (Mu'adzah, 2022). In this context, future IRE teachers must not only convey sharī'ah rulings literally but also analyze social realities, explore Islamic legal values, and promote a moderate and solution-oriented religious understanding (Supriyadi et al., 2024).

Continuing the effort to reconstruct *ushul fiqh* pedagogy, this study offers a novel contribution by designing an adaptive instructional model that integrates critical-contextual thinking with digital technology. Unlike conventional textually normative methods, this model promotes *ushuli* reasoning—methodological, analytical, and reflective thinking essential for understanding Islamic law in a moderate and contextual way (Saepudin et al., 2023). It incorporates contemporary issues, real-life case studies, and interactive digital media to enhance student engagement and collaboration (Khalil, 2023).

This approach not only equips students with theoretical competence but also prepares future IRE teachers to apply sharī'ah values in educational praxis and real-world complexity (Choiriyah et al., 2024). The innovation aims to strengthen Islamic legal literacy and address challenges brought about by digital transformation in higher education. The central research question addressed by this study is:

- How can a digitally integrated critical-contextual *ushul fiqh* learning design effectively foster *ushuli* reasoning among prospective IRE teachers?

2. Theoretical Framework

A review of the literature on the development of *ushul fiqh* research over the past decade, particularly in the context of education and the technological era, has revealed three essential themes that form the theoretical framework of this study. The first relates to *ushul fiqh* as a methodological foundation in Islamic education. The second addresses the construction of *ushuli* reasoning as a critical competence for prospective IRE teachers. The third theme presents the concept of a digital-based critical-contextual learning model, which underpins the instructional design proposed in this study. These themes are explored in detail in the following sub-sections.

2.1 Ushul Fiqh as a Methodological Foundation in Islamic Education

Ushul fiqh serves as an essential methodological foundation in Islamic education by providing a systematic framework for formulating, interpreting, and applying the principles of Islamic law in a logical and structured manner (Mujahid, 2021). Through this approach, students are guided to develop a deep and critical understanding of the primary sources of Islamic law, including the Qur'an, Sunnah, *ijmāʿ* (consensus), and *qiyās* (analogical reasoning) (Purkon, 2022). The integration of *ushul fiqh* into educational curricula not only strengthens conceptual understanding of sharia pieces of evidence but also promotes higher-order thinking skills, particularly in the analysis and classification of legal rulings (Daji, 2022). Empirical studies have demonstrated that structured instruction in *ushul fiqh* significantly enhances students' critical and analytical thinking abilities (Abdul Khalil et al., 2024). By actively engaging students in reflective legal reasoning processes, *ushul fiqh* reinforces the epistemological foundations of

Islamic law while also equipping learners to address contemporary legal issues with argumentation and constructive solutions (Sapiudin et al., 2024). Its dual role—as both a theoretical framework and a practical guide—positions *ushul fiqh* as a strategic instrument in Islamic education, capable of integrating classical scholarly traditions with the contextual needs of modern society (Choiriyah et al., 2024; Majid, 2024).

2.2 The Construction of Ushuli Reasoning in the Education of Prospective Islamic Education Teachers

The construction of *ushuli* reasoning in the education of prospective IRE teachers is a systematic effort to develop a methodological, critical, and argumentative thinking pattern in understanding and applying the principles of Islamic law (Bahiyah, 2024). *Ushuli* reasoning refers to the thinking method developed within the field of *ushul fiqh*, an approach grounded in sharia evidence through methodological tools such as *qiyās* (analogy), *istihsān* (juridical preference), and *istishlāh* (consideration of public interest) within the framework of *ijtihad* (independent legal reasoning) (Hasibuan & Siddiq, 2020). In the context of training prospective IRE teachers, strengthening this reasoning is crucial for developing analytical skills in relation to Islamic texts and contemporary issues in a contextual manner (Demirel Ucan & Wright, 2019).

This aligns with the paradigm of Islamic education, which positions reason as the primary instrument for understanding revelation, ensuring that IRE teachers are not merely memorizers of doctrines but intellectual pedagogues capable of transforming Islamic values into educational practices (Abdul Khalil et al., 2024). Strengthening critical thinking, legal logic, and systematic legal reasoning enables prospective IRE teachers to elaborate on the dynamic religious issues they face (Muwaffiqillah et al., 2025). Therefore, the construction of *ushuli* reasoning is not only an academic tool but also a foundation for the ethical professionalism of IRE teachers, who are expected to become agents of religious moderation and innovators of Islamic thought in the educational world (Daheri et al., 2023).

2.3 Digital-Based Critical-Contextual Learning Model

The digital-based critical-contextual learning model is an innovative approach aimed at developing students' critical thinking skills through the interpretation of real-life contexts, supported by digital technology as a learning medium (Bozkurt, 2022; Ge et al., 2021). This model is based on the principle that effective learning is not only cognitive but also affective and reflective, where students are trained to understand factual issues and analyze them deeply using a scientific approach (Sánchez-Cabrero et al., 2021).

Grounded in the theories of critical pedagogy and situated learning, this approach directs students to become active participants who can reflect on social realities and generate solution-oriented thinking for current issues (Darder et al., 2023; McLaren, 2023). The presence of digital technology expands access to information sources, accelerates interaction, and allows for collaborative, personalized, and flexible learning experiences (Yaseen et al., 2025). The implementation of this model emphasizes problem-solving learning, complemented by digital literacy exploration and the application of blended learning or flipped classroom methods (Laugu et al., 2024; Zhu et al., 2023). Through this approach, students develop not

only critical- and creative-thinking competencies but also communication skills, digital literacy, and social empathy (Supriyadi et al., 2020). This model is highly relevant for shaping learners who are responsive to the complexity of contemporary issues and ready to contribute to the dynamic and multidimensional digital society (Galamba & Matthews, 2021).

3. Method

3.1 Design

This study employed a mixed-methods approach, integrating both qualitative and quantitative methods (Harrison et al., 2020), utilizing a sequential exploratory design. This design is based on the model proposed by Creswell (2014), which emphasizes that combining both approaches can lead to a more comprehensive understanding of the phenomenon under investigation. The research procedure was divided into two main phases. The qualitative phase was conducted first to explore the perceptions, experiences, and contextual understanding of *ushul fiqh* instruction through in-depth interviews and focus group discussions (FGDs) with lecturers and students. This phase aims to identify the learning needs and challenges that inform model development. The quantitative phase followed, in which the effectiveness of the developed learning model was tested experimentally using pre- and post-tests to measure improvements in students' *ushuli* reasoning. To provide a clear overview of the research steps, the procedure is illustrated in Figure 1 below.

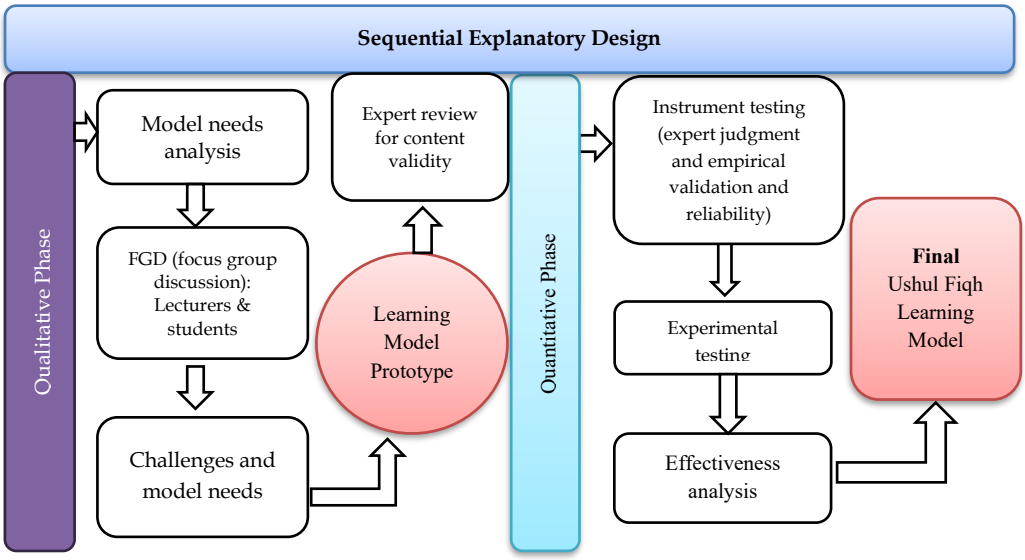

Figure 1: Research procedure

As shown in Figure 1, the research commenced with the collection and analysis of qualitative data. The findings from this phase were used to design and develop the instructional model. Subsequently, the quantitative phase was implemented to test the model's effectiveness. This sequential structure ensured that the model is grounded in contextual needs and supported by empirical evidence, ultimately aiming for more valid and generalizable results (Weyant, 2022).

3.2 Setting and Participants

This study involved 60 students and 10 lecturers from three government-owned universities located in West Java and Banten provinces, Indonesia, all offering the IRE program. Participants were selected purposively based on their active involvement in the *ushul fiqh* course and their classification as digital natives. As defined by Prensky (2001), digital natives are individuals who grew up using digital technologies and are naturally proficient with them. These participants' familiarity with digital tools made them appropriate for evaluating a technology-integrated instructional model, thereby supporting the contextual relevance of the study.

3.3 Data Collection Techniques

The data collection in this study consisted of two phases. In the qualitative phase, data were gathered through in-depth interviews and FGDs to explore the perspectives of lecturers and students regarding *ushul fiqh* learning, which is essential to understanding the context of the research subjects (Harrison et al., 2020). The quantitative phase involved data collection through pre- and post-tests to measure students' *ushul fiqh* reasoning before and after the implementation of the learning model (Tsipianitis & Mandellos, 2022). Questionnaires were also used to probe students' responses, providing a comprehensive overview of the effectiveness of the intervention.

3.4 Data Analysis Techniques

The qualitative data obtained from the interviews and FGDs were analyzed using thematic analysis, which allows the researcher to identify key themes that emerge from the data. This process involves transcription, coding, and grouping of data based on relevant categories (Humble & Mozelius, 2021). The quantitative data were analyzed using descriptive and inferential statistics, such as a *t*-test, to compare the results of the pre- and post-tests (Ibrahim, 2021). This analysis aimed to measure the effectiveness of the applied learning model and to determine whether there was a significant improvement in students' *ushul fiqh* reasoning after the intervention.

3.5 Research Instruments

This study utilized three specific instruments for data collection. First, a structured interview guide consisting of 15 open-ended questions (10 for lecturers and 5 for students) was used in the qualitative phase to explore in-depth perspectives on the teaching of *ushul fiqh*. Second, a questionnaire containing 10 Likert-scale statements was employed in the quantitative phase to assess students' perceptions of the learning model. Third, to evaluate students' *ushul fiqh* reasoning, a test instrument consisting of 20 multiple-choice questions was administered both before and after the intervention (pre-test and post-test, respectively). The number of items in each instrument was clearly defined to ensure transparency and methodological rigor. All instruments were pre-tested for validity and reliability before being used in the field.

3.6 Validity and Reliability of the Instruments

The validity of the qualitative instruments was tested through interviews with five lecturers and five non-participant students, utilizing data triangulation, member-checking, audit trail, and intercoder reliability techniques (Cole, 2024).

Data triangulation resulted in 85% consistency between the interview findings and the relevant instructional documents—namely, semester learning plans and course materials used in *ushul fiqh* instruction—thus reinforcing the credibility and validity of the qualitative data. Member-checking revealed that all participants agreed with the researcher's interpretations. The audit trail provided systematic documentation that enhanced transparency, while intercoder reliability showed 92% agreement between the researchers. These four techniques ensured that the qualitative instruments used were valid and reliable, making the research findings trustworthy and dependable.

The validity of the quantitative instruments was tested on 25 non-participant students. The results showed that the Likert scale questionnaire had an average validity of 89.0%, and the multiple-choice questions had a validity of 88.6%, measured using a content validity approach (Vilagut, 2023). Reliability testing demonstrated good consistency, with Cronbach's alpha values above 0.7, specifically 0.88 for the questionnaire and 0.86 for the multiple-choice questions. These values indicate that the instrument items were interrelated and consistently measured the same construct, thereby validating the instruments as reliable for assessing *ushul fiqh* reasoning.

4. Research Results

4.1 Qualitative Phase: Identification of Model Development Needs

This phase represents the initial stage of the research, aimed at identifying the needs for developing a critical-contextual *ushul fiqh* learning model to equip prospective Islamic education teachers with *ushul fiqh* reasoning competencies. In this phase, 10 lecturers and 10 students were interviewed to explore the challenges and opportunities in teaching *ushul fiqh* in the digital era. The interviews resulted in the gathering of a total of 1,873 statements, consisting of 1,121 statements from lecturers and 752 statements from students. The data were coded and analyzed thematically with the help of NVivo 12, leading to the identification of five key themes in the qualitative phase. These five themes are visually presented in Figure 2 below.

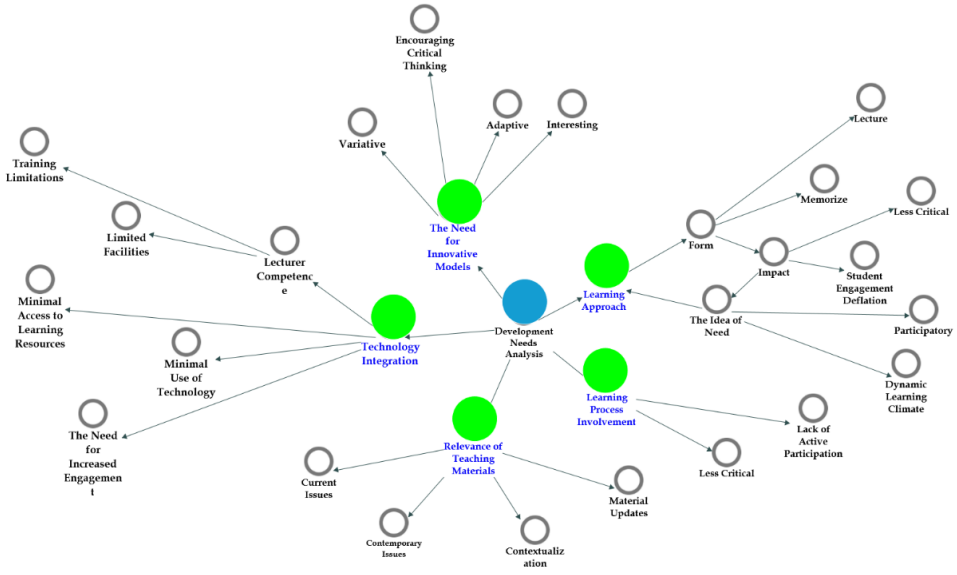

Figure 2: Visualization of the five key themes

Figure 2 above illustrates the five key themes identified that form the foundation for the development of the *ushul fiqh* learning model. These five essential themes are subsequently discussed.

4.1.1 Limitations of traditional approaches in ushul fiqh learning

Traditional teaching approaches in *ushul fiqh* have frequently been criticized in discussions surrounding educational effectiveness. Interviews with several lecturers and students revealed that the methods employed are still largely dominated by lectures and rote memorization. This results in limited interaction between lecturers and students, reducing students' active engagement in the learning process. Such limitations pose a significant challenge in creating a dynamic and participatory learning environment. Interview data from the lecturers indicate that current *ushul fiqh* teaching methods tend to be traditional and lack interactivity.

In this regard, Lecturer 1 stated:

> "*Lectures still dominate, which prevents students from engaging actively.*"

Lecturer 2 added:

> "*Memorizing legal maxims without deep understanding makes it difficult for students to apply the knowledge.*"

Lecturer 3 emphasized:

"*We need to shift from conventional methods to more participatory ones*."

Similarly, Lecturer 4 highlighted:

> "*Discussion and real case analysis should be prioritized.*"

The students also described the impact of this traditional approach, with Student 1 remarking:

> "*I feel disengaged because all the material is delivered in a one-way manner*."

Student 2 noted:

> "*There is very little discussion or Q&A, which leaves me with an incomplete understanding*."

Student 3 shared:

> "*I would prefer more engaging methods, such as case studies.*"

Meanwhile, Student 4 emphasized:

> "*Interactive learning would help us better understand ushul fiqh*."

These findings underscore the urgent need to reform teaching methods to enhance student engagement and improve learning outcomes in *ushul fiqh*.

4.1.2 The urgency of integrating technology in ushul fiqh learning
In today's digital era, the integration of technology into education is crucial. However, data from the interviews with lecturers and students indicate that the use of technology in *ushul fiqh* learning remains minimal.

Lecture 5 remarked:

> "*We have not yet utilized available digital platforms to support learning*."

Lecturer 6 added that access to online learning resources is still very limited. Furthermore, Lecturer 7 noted that technology could enhance students' understanding of complex concepts, while Lecturer 8 emphasized the need for technology integration in every learning session.

Students also highlighted the importance of technological support. Student 5 stated that understanding the material becomes easier with the help of videos or learning applications. Student 6 emphasized that using social media for discussion could broaden their perspectives. These findings underscore the significance of integrating technology into *ushul fiqh* instruction to enhance student engagement, improve access to relevant learning materials, and ultimately support deeper comprehension and participation in the learning process.

4.1.3 The relevance of ushul fiqh content to contemporary issues
The relevance of *ushul fiqh* learning materials to contemporary issues emerged as a central concern in the interviews. Many participants, including both lecturers and students, expressed the sentiment that the content taught does not always align with the challenges faced by today's society. As a result, students often perceive learning as being disconnected from real-life contexts.

Lecturer 9 stated:

> "*The material being taught often lacks connection to current societal problems*",

while Lecturer 10 emphasized the need for curriculum renewal to keep pace with the demands of the times. The students voiced similar concerns, with Student 9 noting:

> "*I want to study ushul fiqh in a way that I can apply in daily life*."

Student 10 admitted a lack of interest due to the perceived irrelevance of the material. Student 1 added that learning that links theory to practical application would be more beneficial. These findings highlight the urgent need for curriculum reform in *ushul fiqh* education to enable students to relate Islamic legal principles to contemporary challenges and enhance the practical relevance of the material in everyday life.

4.1.4 Student engagement in the learning process
Student engagement in the *ushul fiqh* learning process is a critical factor influencing learning outcomes. Interviews revealed that many students felt disengaged, largely due to non-interactive teaching methods and classroom environments that do not support active participation. Lecturer 3 noted: "*Students*

tend to be passive and are reluctant to express their opinions," whereas Lecturer 4 emphasized the need to create an atmosphere that encourages active participation. Lecturer 5 added that more frequent group discussions are necessary to enhance student involvement.

The students also reported several challenges to engagement. Student 3 mentioned a lack of confidence when participating in discussions, while Student 4 highlighted that an unsupportive classroom environment discouraged them from asking questions. Furthermore, Student 5 pointed out that the lack of discussion reduced their understanding of the material. These findings indicate that increasing student engagement is essential for creating an interactive learning atmosphere, supporting the development of critical thinking skills, and encouraging active participation in *ushul fiqh* learning.

4.1.5 The need for an innovative ushul fiqh learning model

The need for an innovative learning model emerged as a key theme in the interviews, with many participants agreeing that current teaching models are not sufficiently engaging and do not encourage students to think critically. In this regard,

Lecturer 7 stated:

> "*We need to design a learning model that not only focuses on memorization but also promotes critical analysis.*"

Lecturer 8 added that a varied and interactive model is highly needed, and Lecturer 9 noted that innovation in teaching methods would capture students' interest. In addition, Lecturer 10 argued that innovative approaches could enhance the quality of *ushul fiqh* education. The students also expressed the need for a new learning model. Student 7 suggested engaging methods such as case studies or simulations, and Student 8 emphasized that innovative learning approaches would increase their interest. Furthermore, according to Student 9, an appealing model would aid in understanding *ushul fiqh*, with Student 10 adding that methods relevant to daily life are essential. These findings highlight the urgent need for developing an innovative and adaptive learning model to improve the effectiveness of *ushul fiqh* education in the digital era.

4.2 Instructional Design and Learning Materials Development

Based on the qualitative findings identified in the first phase, the next step involved designing the instructional model, which included the learning syntax and supporting materials. In this design process, insights derived from the qualitative data served as essential inputs. The aim was to ensure that the developed instructional design not only aligns with the students' needs but also effectively enhances their *ushuli* reasoning skills.

4.2.1 Learning syntax

Learning syntax refers to a sequence of structured steps within the learning process aimed at achieving educational objectives. The instructional syntax designed to enhance *ushuli* reasoning was formulated using the SMART framework, with SMART standing for strategic, meaningful, active, reflective, and transformative. The steps in the SMART model are described in detail in Table 1.

Table 1: Syntax design for ushul fiqh learning

Component	Objective	Learning activity
S – Strategic	Students understand clear learning objectives and the steps required to achieve them	The instructor designs a specific lesson plan with clear objectives, using Google Classroom to deliver introductory materials on *ushul fiqh* and sources of Islamic law
M – Meaningful	Students are able to connect *ushul fiqh* materials with real-life contexts and contemporary issues	The instructor uses interactive videos and case studies to illustrate the relevance of *ushul fiqh* and facilitates group discussions via Zoom
A –Active	Students actively engage in the learning process to deepen their understanding	The instructor encourages active participation through class discussions and interactive quizzes using the Kahoot! application to enhance engagement
R – Reflective	Students are able to reflect on their knowledge and experiences	The instructor asks students to write reflective journals and conduct group discussions with feedback using Google Docs to support reflection
T – Transformative	Students are able to apply *ushul fiqh* principles in broader and more relevant contexts	The instructor assigns a final project requiring the application of *ushul fiqh* principles to real-world case studies, using Google Analytics for data analysis and interaction

As seen in Table 1, the learning model is named SMART to distinguish it from other pedagogical approaches. The SMART acronym reflects the core characteristics of the model: strategic, meaningful, active, reflective, and transformative. With a strong focus on enhancing students' *ushuli* reasoning, this model integrates technology and interactive methods, providing a more effective and relevant learning experience. The designation of SMART also signifies a commitment to creating an innovative and adaptive learning environment that meets the needs of students in the digital age.

4.2.2 Teaching materials

The design of the *ushul fiqh* teaching materials aims to provide a comprehensive understanding of the fundamental principles of Islamic law and their application in contemporary contexts, utilizing AI technology to enhance the learning experience. The content presented includes an introduction to *ushul fiqh*, sources of Islamic law, and legal reasoning methods such as *qiyas*, *istihsan*, and *istislah*. These teaching materials are organized in a flexible learning interactivity framework (FLIF) PDF format, ensuring easy accessibility for students.

The learning media used include interactive videos, slide presentations, and scholarly articles. AI-based applications, such as chatbots, will provide instant responses to students' questions, while adaptive learning platforms, such as

Smart Sparrow, will tailor the content to meet individual student needs. Instructors will utilize data analysis tools such as Google Analytics for Education to assess students' interactions with the learning materials, along with automated feedback systems such as Gradescope to help students immediately gauge their understanding.

4.3 Quantitative Phase: Implementation and Effectiveness Testing of the SMART Model

The implementation of the SMART model in the quantitative phase involved 60 students enrolled in the *ushul fiqh* course. The evaluation of learning outcomes was analyzed from pre- and post-test data, which are descriptively presented in Table 2 below.

Table 2: Descriptive analysis results

	N	Minimum	Maximum	Mean	Std. dev.
Pre-test	60	55.00	75.00	65.8667	5.57375
Post-test	60	75.00	95.00	86.1333	5.49412
Valid N (listwise)	60				

Table 2 presents the descriptive analysis of the pre- and post-test data from the 60 students who participated in the *ushul fiqh* course. A significant improvement in test results was observed, with the minimum pre-test score being 55.00 and the maximum 75.00, while the minimum post-test score was 75.00 and the maximum 95.00. The average pre-test score was 65.867, while the post-test average increased to 86.1333, indicating that the students, as a whole, gained a better understanding after the learning process. The standard deviation for the pre-test was 5.57375, while the post-test showed a slightly lower value of 5.49412. Although some variation in scores remained, the post-test results were relatively more consistent, indicating that students generally achieved higher levels of understanding. These findings support the effectiveness of the implemented learning method in enhancing students' *ushul fiqh* reasoning skills.

After the descriptive analysis was performed, regression testing was conducted, preceded by a normality test of the data. This step was crucial in providing a solid foundation to proceed with the analysis and evaluating the effectiveness of the applied learning method. The results of the data normality test are presented in Table 3.

Table 3: One-sample Kolmogorov-Smirnov Test results

		Pre-test	Post-test
N		60	60
Normal parameters[a,b]	Mean	65.8667	86.1333
	Std. dev.	5.57375	5.29078
Most extreme differences	Absolute	.087	.101
	Positive	.087	.082
	Negative	-.087	-.101
Test statistic		.087	.101
Asymp. sig. (2-tailed)		.200[c,d]	.200[c,d]

Table 3 presents the results of the one-sample Kolmogorov-Smirnov Test for both the pre- and post-test data collected from the 60 students. The test results indicate that both the pre- and post-test data follow a normal distribution. This outcome provided a strong basis to proceed with data analysis using parametric regression analysis, which is used to examine the relationship between the dependent variable (post-test) and the independent variable (pre-test). The results of this analysis are presented in Table 4.

Table 4: Analysis of variance results[a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	1595.436	1	1595.436	1649.091	.000[b]
	Residual	56.113	58	.967		
	Total	1651.549	59			

As seen in Table 4 above, the significance value (*p*-value) obtained is .000, indicating a very significant relationship between the pre- and post-tests. With a *p*-value well below .05, this suggests that the results are highly unlikely to have occurred by chance. The analysis of variance (ANOVA) results show that the regression model used to predict the post-test results based on the pre-test results is highly significant. This indicates that the pre-test variable has a strong influence on the students' learning outcomes. The magnitude of this influence can be observed from the *R* square value, as presented in Table 5.

Table 5: *R* square value

Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate
1	.983[a]	.966	.965	.98360

Table 5 above shows that the regression model used to predict the post-test results based on the pre-test results is very strong, with a significant relationship and a high ability to explain the variation in the data. With an *R* value approaching 1

and a high R^2, this confirms that the pre-test is an effective predictor of students' learning outcomes in *ushul fiqh*.

5. Discussion

The implementation of the SMART learning model in *ushul fiqh* education has shown significant results in improving students' understanding. The descriptive analysis results revealed an increase in the average score from the pre-test (65.87) to the post-test (86.13), reflecting the effectiveness of the applied teaching method. Previous studies support these findings, demonstrating that the use of interactive and technology-based teaching methods can significantly enhance students' learning outcomes.

For instance, Ali et al. (2023) found that integrating technology into learning increases student motivation and engagement, which contributes to better academic results. The use of interactive videos and learning applications such as Kahoot! in the SMART model enables students to actively engage and participate in the learning process. This indicates that interactive and engaging learning can improve students' understanding of complex materials such as *ushul fiqh*. Thus, the SMART model successfully enhances students' *ushuli* reasoning and provides a more meaningful learning experience.

The normality test conducted showed that both the pre- and post-test data follow a normal distribution, providing a strong basis to continue with parametric analysis methods. Data normality is an essential requirement in statistical analysis to ensure the validity of the results. A study by Tang et al. (2020) emphasized that understanding data distribution is crucial for accurate analysis. The results of the ANOVA test showed a significant value (p-value) of .000, indicating a highly significant relationship between the pre- and post-tests.

Previous research also found that a significant improvement in post-test scores after the implementation of interactive teaching methods is a common occurrence. For example, a study by Er et al. (2021) showed that teaching methods involving discussion and collaboration can enhance learning outcomes. Additionally, Haleem et al. (2022) and Supriyadi et al. (2019) revealed that the use of technology in teaching can improve students' understanding of the material. Therefore, these findings affirm that the SMART model supports the enhancement of *ushul fiqh* understanding among students.

The R square analysis, which showed a value of 0.966, confirms that the regression model used is highly effective in explaining the variation in the data. A high R^2 value indicates that the pre-test is an effective predictor of students' learning outcomes. Other studies, for example Lai et al. (2022), demonstrated that a good regression model can explain a high proportion of variability in learning outcomes. Jeon and Lee (2023) also emphasized the importance of selecting the right model for educational data analysis. With an R value close to 1, this model demonstrates a strong relationship between the pre- and post-tests, suggesting that the improvement in student understanding can be attributed to the effectiveness of the applied teaching methods. Therefore, this analysis provides strong support for the application of the SMART model in *ushul fiqh* education.

Overall, the results of this study indicate that the application of the SMART learning model in *ushul fiqh* education not only enhances students' understanding but also develops critical and responsive *ushuli* reasoning toward social dynamics. It is hoped that by integrating technology and interactive teaching methods, students will be better prepared to face real-world challenges. Research by Supriyadi et al. (2020) shows that innovative and technology-based learning can enhance students' critical thinking skills. Muthmainnah et al. (2022) emphasized the importance of an adaptive approach in education to meet students' needs in the digital age. Jeon and Lee (2023) also noted that learning relevant to the social context increases student engagement. Finally, Tomaszewski et al. (2020) emphasized that the use of technology in education can have a significant positive impact on learning outcomes.

6. Conclusion

This study demonstrates that the implementation of the SMART learning model in *ushul fiqh* education has successfully improved students' understanding and engagement. The analysis results indicate a significant improvement between pre- and post-test scores, with the average pre-test score reaching 65.87 and the post-test score increasing to 86.13. The ANOVA test confirmed that this difference is highly significant, with a *p*-value well below .05, indicating that the applied teaching method is effective in enhancing students' learning outcomes. The implementation of technology, such as interactive videos and AI-based applications, contributed significantly to student engagement. Students reported that the use of digital media made learning more engaging and relevant. Additionally, automatic feedback through systems such as Gradescope provided students with the opportunity to evaluate their understanding directly, which motivated further learning.

Overall, the results of this study provide strong evidence that the SMART learning model—which encompasses strategic, meaningful, active, reflective, and transformative approaches—can enhance the quality of *ushul fiqh* education. This design is beneficial for students not only in understanding theory but also in applying the principles of *ushul fiqh* practically in real-life contexts. Therefore, this research shows that the SMART model not only improves academic outcomes but also develops students' critical and responsive *ushuli* reasoning toward social dynamics. Beyond *ushul fiqh*, the SMART instructional model holds significant potential to enhance critical-contextual thinking across various domains of Islamic education. Its integration of digital tools and reflective learning strategies may serve as a transformative approach for modern Islamic pedagogy.

7. Recommendations

This study recommends future research to apply the SMART instructional model—which emphasizes strategic, meaningful, active, reflective, and transformative learning—in other Islamic education subjects such as *hadith*, *tafsir*, and *fiqh*. In addition, researchers are encouraged to examine students' long-term retention of *ushul fiqh* knowledge following the use of the SMART model. Such longitudinal studies would provide insight into the model's sustained impact and further validate its relevance as an adaptive pedagogical framework for Islamic legal education in the digital era.

8. Limitation

Although this study focused on *ushul fiqh*, the instructional model developed has the potential to be adapted and generalized to other Islamic education disciplines, such as *hadith* and *tafsir*. However, the study was limited to universities in West Java and Banten, which may affect the generalizability of the findings across broader geographical and institutional contexts. Future research is recommended to expand both the subject areas and the geographical coverage to validate the model more comprehensively.

9. Declaration of Artificial Intelligence

The authors declare that AI tools, specifically Grammarly, were used solely for language editing assistance. All intellectual contributions, critical analysis, and final revisions were made by the authors. The authors bear full responsibility for the accuracy, originality, and integrity of the content presented in this work.

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