

From Individual Competence to Distributed Capacity: How Islamic Religious Education Teachers Verify Generative-AI Content in Padang, Indonesia

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Abstract

Generative artificial intelligence (AI) produces fluent religious exposition without disclosing the ground of its authority. For Islamic Religious Education (in Indonesia, Pendidikan Agama Islam, hereafter PAI), this limitation touches a foundational concern, because the validity of religious knowledge is determined not only by the truth of its content but also by its chain of transmission. Normative scholarship has articulated how *tabayyun* (verification) and *maqāṣid* (the higher objectives of the law) should guide the use of AI, and an instrument for Islamic AI literacy has been developed for university students. What has been missing is empirical evidence of how schoolteachers of religion narrate the application of such norms when confronting concrete AI outputs. This study addresses that gap through a reflexive thematic analysis of semi-structured interviews with fifteen senior-secondary PAI teachers in Padang, West Sumatra, sampled purposively for maximum variation in employment status and school sector. Four themes were developed. First, AI shifts the allocation of teachers' labor from text production to verification rather than reducing the overall workload. Second, the commitment to verify is uniform across the sample, whereas the standard of authority deemed adequate varies sharply, ranging from the classical *sanad* to personal networks. Third, the limit of delegation is drawn at what cannot be conveyed as text, not at any threshold of informational accuracy. Fourth, the capacity to meet that standard appears to track institutional proximity to scholarly authority. A systematic search of the entire corpus found no Minangkabau *adat* category, and the repertoire teachers mobilized was normative-translocal; because the interview guide did not prompt for *adat*, this absence is treated as an observation to be tested rather than as settled evidence. On the strength of the whole sample, the study proposes reframing Islamic AI literacy from an individual competence into a distributed capacity, a hypothesis the data motivate but do not settle, resting most heavily on a single matched pair of cases. The implication is direct: training programs that target individual skills without providing access to scholarly authority risk widening the very gap they seek to close.

Keywords: Islamic AI literacy; *tabayyun*; *sanad*; Islamic Religious Education; generative artificial intelligence

Introduction

Generative AI can produce religious exposition without naming the ground of its authority. It can compose an explanation of *tawakkul* (trust in God), quote a hadith, and even map differences among the legal schools, yet it cannot show where that knowledge was obtained or who guarantees its truth.¹

For most school subjects, this limitation is a mere technical inconvenience. For PAI, however, the issue reaches the foundation of the field's own epistemology. Within the Islamic scholarly tradition, the validity of religious knowledge is determined not only by the truth of its content but also by the chain of transmission that underwrites it.²

When a PAI teacher asks an AI system to draft a teaching module on *akhlāq* (moral character), the teacher receives a neat and persuasive text and must decide, alone, whether it is fit to present to students. No screening body stands between the machine's output and the classroom; no assessor sorts a quoted hadith into *ṣaḥīḥ*, *ḥasan*, *ḍa'if*, or *mawḍū'*.³ The decision rests entirely with the teacher, amid a crowded teaching schedule and mounting administrative load.

Research on teachers of religion and AI is only beginning to develop and, so far, rests largely on attitude surveys. Mąkosa and Chrostowski compared the attitudes of 236 Catholic religious-education teachers in Germany and Poland toward generative AI. They found broadly positive attitudes in both countries, realized in patterns specific to each system's culture.⁴ Chrostowski and Mąkosa likewise documented ambivalent perceptions among German and Polish teachers,⁵ and Palać reported the trust that religious-education

¹ Amana Raquib, Bilal Channa, Talat Zubair, and Junaid Qadir, "Islamic Virtue-Based Ethics for Artificial Intelligence," *Discover Artificial Intelligence* 2, no. 1 (2022): art. 11, <https://doi.org/10.1007/s44163-022-00028-2>.

² M. H. M. Azhar, M. F. M. Bakri, K. Ahmad, and M. I. Rosele, "Ethics and Limits of Artificial Intelligence (AI) in Quranic Exegesis According to the Epistemological Framework of Islamic Knowledge," *QURANICA: International Journal of Quranic Research* 17, no. 2 (2025): 97-124, <https://doi.org/10.22452/quranica.vol17no2.5>.

³ F. A. Malik and M. S. Hanapi, "AI Content Fabrication and Deception: An Islamic Ethical and Societal Analysis," *Planning Malaysia* 24, no. 3 (2026): 228-242, <https://doi.org/10.21837/pm.v24i42.2041>.

⁴ Paweł Mąkosa and Marcin Chrostowski, "Attitudes of Religious Education Teachers in Poland and Germany towards Generative Artificial Intelligence," *British Journal of Religious Education* (2026, advance online publication), <https://doi.org/10.1080/01416200.2026.2655253>.

⁵ Marcin Chrostowski and Paweł Mąkosa, "Ambivalent Perceptions of Artificial Intelligence in Religious Education: A Comparative Study among Teachers in Germany and Poland," *Teaching Theology & Religion* 28, no. 2 (2025): 110-23, <https://doi.org/10.1111/teth.70020>.

teachers in Croatia place in AI.⁶ Because two of the three reports come from the same author team with overlapping populations, the empirical reach of this cluster is narrower than its publication count suggests. All three stop at mapping attitudes; none examines the actions teachers take when an AI output must be judged for validity before it enters the classroom. Within Islamic religious education specifically, the literature so far consists largely of conceptual and systematic reviews that catalog opportunities, challenges, and the tension between algorithmic output and religious authority,⁷ rather than empirical accounts of how teachers act on that tension in practice.⁸

Islamic scholars, meanwhile, have produced a series of normative frameworks to guide the use of AI, although these rest on diverse epistemological foundations. Elmahjub proposed a pluralist ethical benchmark drawn from Islamic sources,⁹ while Raquib and colleagues developed a virtue-ethics framework grounded in *maqāṣid al-sharīʿah* as an alternative to AI governance.¹⁰ Ali and colleagues, in turn, questioned this *maqāṣid* approach, arguing that *maqāṣid* and *qawāʿid fiqhīyyah* arose to answer legal, not ethical, questions and thus reached their limits when applied to new technology; in its place, they offered a fiduciary (*iʿtimānī*) framework indebted to Taha Abdurrahman.¹¹ Despite the tension between the two positions, they converge on one point: governing AI in an Islamic context requires a normative apparatus that exceeds technical regulation.

Three more recent works move from the general normative register to the problem of content verification. Meerangani and colleagues formulated a *Digital Tabayyun* framework that couples the Qurʾanic principle of information verification with AI models

⁶ N. Palać, “Croatian Religious Teachers’ Trust in Artificial Intelligence,” *Crkva u svijetu* 60, no. 4 (2025): 943-82, <https://doi.org/10.34075/cs.60.4.14>. Full bibliographic details should be confirmed against the source before submission.

⁷ M. S. Abubakari, G. A. N. Zakaria, D. Yusmaliana, A. Zaldi, J. Musa, and M. M. Taruna, “Pedagogical Perspectives on Artificial Intelligence in Islamic Religious Education: A Comprehensive Review,” in *Ethical, Legal, and Pedagogical Perspectives on AI in Education* (Hershey, PA: IGI Global, 2026), 239-275, <https://doi.org/10.4018/979-8-3373-3000-6.ch009>.

⁸ M. Arif, M. K. N. Abd Aziz, H. Hassan, Y. Fikri, M. Zekkari, and B. V. Rismawati, “Artificial Intelligence in Islamic Religious Education: A PRISMA-Based Review and the SEI-CHAT Framework,” *Online Learning in Educational Research* 6, no. 1 (2026): 65-85, <https://doi.org/10.58524/oler.v6i1.993>.

⁹ Ezieddin Elmahjub, “Artificial Intelligence (AI) in Islamic Ethics: Towards Pluralist Ethical Benchmarking for AI,” *Philosophy & Technology* 36, no. 4 (2023): art. 73, <https://doi.org/10.1007/s13347-023-00668-x>.

¹⁰ Raquib, Channa, Zubair, and Qadir, “Islamic Virtue-Based Ethics.”

¹¹ F. Ali, K. Bouzoubaa, F. Gelli, B. Hamzi, and S. Khan, “Islamic Ethics and AI: An Evaluation of Existing Approaches to AI Using Trusteeship Ethics,” *Philosophy & Technology* 38, no. 3 (2025): art. 120, <https://doi.org/10.1007/s13347-025-00922-4>.

for filtering false information.¹² Nazir and colleagues built a model of AI-interaction ethics from Qur'anic text using the methodology of hadith science, including *naqd al-ḥadīth* and *ādāb ṭālib al-ḥadīth*.¹³ Azhar and colleagues set limits on the use of AI in *tafsīr*, grounded in the epistemology of the Islamic sciences.¹⁴ In a parallel effort, Sahimi and colleagues proposed an AI pipeline that authenticates exegetical content against recognized scholarly sources while insisting on human-in-the-loop supervision, positioning the machine as a complement to, not a substitute for, scholarly authority.¹⁵ These works show that debate within Islamic scholarship has reached the question of verification. Still, all three operate at the level of principle: they articulate what ought to be done rather than documenting how particular actors apply such principles in concrete situations.

One measurement effort has been made. Syamsudduha and colleagues developed and validated an Islamic AI literacy scale for students at Islamic higher-education institutions in Indonesia. The scale rests on the principles of *adab*, *amānah*, *ʿadl*, *maṣlahah*, and *tabayyun*, with four dimensions and fifteen items tested on 361 respondents.¹⁶ The instrument measures literacy through student self-report; it therefore shows how students appraise themselves against these norms, not how instructors apply the same norms in teaching.

Research on AI in Islamic education in Indonesia has itself grown in recent years. Achruh and colleagues worked at the institutional level, mapping the challenges and opportunities of adopting AI in Islamic higher education.¹⁷ Syukur and colleagues, also

¹² Khairul Azhar Meerangani, M. R. M. Nor, M. F. A. Hamid, M. A. M. Yusof, and M. F. M. Ariffin, "Digital *Tabayyun*: Integrating the Quran and Artificial Intelligence in Filtering Social Media Information," *QURANICA: International Journal of Quranic Research* 17, no. 2 (2025): 370-89, <https://doi.org/10.22452/quranica.vol17no2.15>.

¹³ A. N. U. M. Nazir, N. K. M. Ithnin, I. Suliaman, and M. T. Amat Famsir, "Challenges in AI-Mediated Engagement with Quranic Verses: An Ethical Framework Based on Hadith Methodology," *QURANICA: International Journal of Quranic Research* 17, no. 2 (2025): 271-303.

¹⁴ Azhar, Bakri, Ahmad, and Rosele, "Ethics and Limits of Artificial Intelligence."

¹⁵ M. S. B. Sahimi, M. H. A. Rahim, A. A. B. Rushihi, A. Kirin, and N. Zakaria, "Preserving the Authenticity of Quranic Exegesis through Artificial Intelligence: A Proposed Framework for Digital Verification," *QURANICA: International Journal of Quranic Research* 17, no. 2 (2025): 325-344.

¹⁶ Syamsudduha, Suwandi, and Z. A. Tabrani, "Islamic AI Literacy as Responsible Knowledge Practice: Development and Validation of AILS-IIUS in Indonesian Islamic Higher Education," *Jurnal Pendidikan Islam* 12, no. 1 (2026): 187-201, <https://doi.org/10.15575/jpi.v12i1.54254>.

¹⁷ A. Achruh, M. Rapi, M. Rusdi, and R. Idris, "Challenges and Opportunities of Artificial Intelligence Adoption in Islamic Education in Indonesian Higher Education Institutions," *International Journal of Learning, Teaching and Educational Research* 23, no. 11 (2024): 423-43, <https://doi.org/10.26803/ijlter.23.11.22>.

at the institutional level, compared UIN Walisongo Semarang and Darul Maarif Islamic College Patani and found that neither institution had integrated AI into the formal curriculum and that the two differed in their wariness of bias in religious information.¹⁸ Faizin and colleagues moved to the individual level but adopted an acceptance perspective, modeling Muslim students' responses to AI in PAI through an extended Technology Acceptance Model.¹⁹ Wedi and colleagues, the study most closely related to the present one, examined the digital transformation of Islamic religious education in madrasah aliyah in East Java but stopped at an institutional-level transformation model.²⁰ These four studies display the fragmentation typical of a young field: each selects a different unit of analysis, institution, student, or transformation model, and none examines the daily verification decisions that individual teachers make when confronting AI outputs in the classroom. A large national survey of Indonesian Islamic-education teachers reinforces the point from the other direction: it documents a broadly positive reception of digital tools and calls for stronger training and infrastructure, yet again measures attitudes rather than the verification practice that follows once an AI output must be judged.²¹

The literature above shows that normative scholarship has articulated how *tabayyun*, *maqāṣid*, and hadith methodology might guide the use of AI; that a measurement instrument exists for students; and that Indonesian studies have mapped institutional readiness and student acceptance. What is missing is empirical evidence of how schoolteachers of religion narrate the application of these norms when confronting concrete AI outputs: which epistemic categories they invoke unprompted, what they treat as sufficient evidence, and how evenly that capacity is distributed among teachers occupying different institutional positions. This last question is rarely posed, yet its

¹⁸ Fatah Syukur, Ahmad Maghfur, Uswatun Marhamah, and Phaosan Jehwae, "Integration of Artificial Intelligence in Islamic Higher Education: Comparative Responses between Indonesia and Thailand," *Nazhruna: Jurnal Pendidikan Islam* 7, no. 3 (2024): 531-53, <https://doi.org/10.31538/nzh.v7i3.13>.

¹⁹ N. Faizin, M. Alfian, A. Basid, M. R. Ramadhan, S. A. Panatik, and A. N. Kawakip, "Muslim Students' Acceptance of Artificial Intelligence in Islamic Religious Education: An Extended TAM Approach," *Discover Education* 4, no. 1 (2025): art. 304, <https://doi.org/10.1007/s44217-025-00767-1>.

²⁰ A. Wedi, D. Mardiana, and U. Umiarso, "Digital Transformation Model of Islamic Religious Education in the AI Era: A Case Study of Madrasah Aliyah in East Java, Indonesia," *International Journal of Learning, Teaching and Educational Research* 24, no. 8 (2025): 842-63, <https://doi.org/10.26803/ijlter.24.8.37>.

²¹ H. S. Siregar, Nurhamzah, M. Munir, and M. Fikri, "Enhancing Islamic Education through Technology Integration: A Study of Teaching Practices in Indonesia," *Jurnal Ilmiah Peuradeun* 13, no. 2 (2025): 959-986, <https://doi.org/10.26811/peuradeun.v13i2.1875>.

answer decides whether Islamic AI literacy is a matter of policy or stays an individual advantage.

The study was conducted in Padang, the capital of West Sumatra. The region lives by the philosophy *adat basandi syarak, syarak basandi Kitabullah* (custom rests on religious law; religious law rests on the Book of God), which places religious norms at the foundation of communal and educational life and gives PAI a large institutional weight in the public school system. The site was selected on a most-likely-case logic:²² If PAI teachers anywhere would mobilize a local custom-and-religion category as an interpretive resource when facing a new technology, West Sumatra is the place most likely to show it. The corollary is that if the pattern does not appear here, it is unlikely to appear in regions with looser ties to customs and religion. This corollary holds, however, only to the extent that the instrument gives such a category room to surface, a condition made explicit in the Method and revisited in the Discussion, where it materially qualifies the inference.

This study seeks to understand how senior-secondary PAI teachers in Padang appraise and use AI in their teaching. The question of verification does not stand alone; it is embedded in the teacher's work context. Before one can understand how teachers verify AI outputs, one must first map where in the daily workflow AI enters and which tasks are delegated to it, because the kind of task delegated determines the kind of verification required. Delegating the drafting of a quiz requires a different check than delegating an explanation of Islamic law of inheritance. Three questions guide the study. RQ1: How does the presence of AI change the allocation of PAI teachers' tasks in everyday practice? RQ2: What epistemic resources do they mobilize to judge the validity of AI-generated religious content, and what standard do they treat as adequate? RQ3: Where do they set the limit of delegation to AI (RQ3-a), and how is verification capacity distributed across institutional positions (RQ3-b)?

Method

The research questions examine patterns of meaning that hold across a professional group rather than the experience of individuals. The sample was built to vary along four

²² Harry Eckstein, "Case Study and Theory in Political Science," in *Handbook of Political Science*, vol. 7, *Strategies of Inquiry*, ed. Fred I. Greenstein and Nelson W. Polsby (Reading, MA: Addison-Wesley, 1975), 79-137.

axes, age, career stage, employment status, and school sector, because institutional position shapes what teachers can and cannot do with AI. The claims produced are interpretive, concerning the practice of religious epistemic commitment under technological pressure, rather than a catalog of what teachers reported. These three features orient the study toward reflexive thematic analysis.²³

Interpretative phenomenological analysis (IPA) was considered. IPA requires a small, homogeneous sample and deep idiographic engagement with each narrative.²⁴ Because this design deliberately targets between-informant variation and patterns that do and do not hold across the whole sample, IPA was incompatible.

Ontologically, the study assumes that teachers' verification practices have real consequences for what students receive. Epistemologically, teachers' narratives are treated as contextual products, shaped by both the interactional dynamics of the interview and the professional-ethical constraints on PAI teachers speaking about religious knowledge.

Fifteen informants were recruited through location-based purposive sampling with maximum variation: one PAI teacher from each of ten public and five private senior-secondary schools in Padang. The inclusion criteria were threefold, teaching PAI at the senior-secondary level, at least one year of teaching experience, and direct experience of using generative AI in PAI instruction.

The subject-teacher forum (Musyawarah Guru Mata Pelajaran, MGMP) for PAI in Padang served as the recruitment channel. This route carries a selection bias that must be acknowledged, and its consequences run deeper than exposure to new practices: teachers active in a professional forum are, by definition, embedded in networks of collegial authority. Teachers with the weakest ties to such networks, the most isolated members of the profession, are therefore structurally under-represented in this sample. As set out under RQ3-b, this is precisely the population the study's distributional claim concerns, so the disparity reported later should be read as a lower bound rather than a full estimate.

²³ Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77-101; and Virginia Braun and Victoria Clarke, *Thematic Analysis: A Practical Guide* (London: SAGE, 2022).

²⁴ Jonathan A. Smith, Paul Flowers, and Michael Larkin, *Interpretative Phenomenological Analysis: Theory, Method and Research*, 2nd ed. (London: SAGE, 2022).

Sample size was set on the principle of information power rather than data saturation.²⁵ Two factors raised the required size: a broad aim with three questions, and a cross-case analytic strategy. Two lowered it: high sample specificity, and a literacy framework meant to extend theory rather than test it. Dialogue quality was moderate. On the balance of these five factors, fifteen informants provided adequate information. The study makes no claim of data saturation, a concept judged inapt in reflexive thematic analysis.²⁶ Table 1 presents the participant characteristics.

Table 1.
Participant characteristics (N = 15)

Co de	S ex	Ag e	Education	Status	Sector	Year s teach ing	AI experi ence	AI tools used
P01	M	41	Master's	PPPK	Public	18	2 yr	ChatGPT, Gemini, Perplexity, Gamma AI
P02	F	28	Bachelor's	PPPK	Public	4	4 yr	ChatGPT, Gemini, Quillbot
P03	F	32	Bachelor's	ASN	Public	4	2 yr	ChatGPT, Gemini, Canva AI
P04	F	54	Master's	PNS	Public	28	3 yr	ChatGPT
P05	F	53	Bachelor's	PNS	Public	28	2 yr	ChatGPT, Gemini, Bing AI, Midjourney
P06	M	48	Bachelor's	PNS	Public	20	1.5 yr	ChatGPT, YouTube AI Summary
P07	M	33	Master's	PPPK	Public	10	1 yr	ChatGPT, Canva AI
P08	F	28	Bachelor's	PPPK	Public	4	3 yr	ChatGPT, Canva AI, Quizizz AI, CapCut AI
P09	F	41	Bachelor's	PNS	Public	17	3 yr	ChatGPT, Bing AI, Grammarly AI
P10	M	47	Master's	PNS	Public	22	1.5 yr	ChatGPT, Canva AI, Khanmigo
P11	M	27	Bachelor's	GTU	Private	3	1.5 yr	ChatGPT, Gemini, Quillbot
P12	M	38	Bachelor's	GTU	Private	10	2 yr	ChatGPT, Canva AI
P13	F	46	Bachelor's	GTU	Private	21	2 yr	ChatGPT (free version)
P14	F	45	Bachelor's	GTU	Private	20	2 yr	ChatGPT (free version)
P15	M	27	Bachelor's	GTTY	Private	2	3 yr	ChatGPT, Canva AI, Meta AI

Note. PNS = career civil servant; PPPK = government employee on a work agreement; ASN = state civil apparatus; GTU = permanent foundation teacher; GTTY = non-permanent foundation teacher.

²⁵ Kirsti Malterud, Volkert Dirk Siersma, and Ann Dorrit Guassora, "Sample Size in Qualitative Interview Studies: Guided by Information Power," *Qualitative Health Research* 26, no. 13 (2016): 1753-60.

²⁶ Braun and Clarke, *Thematic Analysis*.

Data were collected through individual semi-structured interviews conducted from January to April 2026 at each informant's school. Each interview lasted 60 to 90 minutes and was recorded with written consent.

The interview guide was built from the research questions and grouped into seven clusters of 36 questions, plus a closing cluster of two. The seven clusters covered understanding of AI, integration experience, perceived benefits, challenges, the relationship between AI and Islamic values, the shift in the teacher's role, and institutional support and expectations. One feature of this structure is analytically consequential and is returned to throughout: the guide contained a dedicated cluster on AI and Islamic values, which invited reflection on the Islamic normative framework, but no comparable cluster inviting reflection on Minangkabau *adat*. The instrument therefore primed the Islamic-normative domain while leaving the custom domain unprompted, an asymmetry that bears directly on how the absence of an *adat* category can, and cannot, be interpreted.

Interviews were conducted in Indonesian, the informants' everyday working language. The first author transcribed all recordings verbatim in Indonesian, then checked each transcript against the original recording. The quotations presented in the Findings were subsequently translated into English by the authors.

Editing of quotations was minimal: recurring verbal markers, word repetitions, and broken-off and restarted sentences were removed. Propositional content, the order of ideas, and the choice of religious terms were left unchanged. This editing accounts for the relative uniformity in the closing form of the displayed quotations; that uniformity is an editing artifact, not a feature of the original speech, and is not used to ground any analytic claim. Unedited transcripts are held in the audit trail and available for inspection.

One methodological distinction underlies the findings and must be stated up front: material *elicited by the instrument* (named in the interview guide) is distinguished from material *introduced by the informant* (arising without any prompt). Table 2 maps this distinction. Analytic weight is placed on the participant-introduced categories because their appearance cannot be attributed to a direct instrument effect. As noted above, however, "not directly named in the guide" is not the same as "arising in an unprimed domain": the four participant-introduced categories below emerged within an interview that had already opened a cluster on Islamic values, whereas no cluster opened the topic of *adat* at all.

Table 2.
Instrument-elicited versus participant-introduced material

Category	Source	Location in guide	Status
<i>Tabayyun</i>	Interviewer	Islamic-values cluster, Q4	Instrument-elicited
Shift in the teacher's role	Interviewer	Role cluster, Q1	Instrument-elicited
Role not replaceable by AI	Interviewer	Role cluster, Q4	Instrument-elicited
Time efficiency	Interviewer	Benefits cluster, Q5	Instrument-elicited
Expectation of a certified platform	Interviewer	Expectations cluster, Q3 and Q4	Instrument-elicited
<i>Sanad</i> and the chain of transmission	Informant	None	Participant-introduced
<i>Maqāṣid al-sharī'ah</i> and the <i>maṣlaḥah</i> test	Informant	None	Participant-introduced
Distinction of <i>ilm</i> and <i>ḥikmah</i>	Informant	None	Participant-introduced
<i>Khalīfah fī al-arḍ</i>	Informant	None	Participant-introduced

Supporting documents, learning-objective flow charts, teaching modules, and AI-assisted material, were gathered from draft lesson plans and informants' notes. Consistent with the study's contextualist frame, these documents serve to situate the interview narratives in context, not to verify their truth; the study therefore makes no claim to methodological triangulation. No classroom observation was carried out. All claims about verification practice derive from teachers' accounts of what they do, not from direct observation of that practice.

Analysis followed the six phases of reflexive thematic analysis.²⁷ In phase one, the first author read each transcript twice before coding and recorded first impressions in a reflexive journal. In phase two, the entire dataset was coded line by line, generating semantic codes that closely matched the informants' wording and latent codes that captured assumptions not stated explicitly. NVivo 12 was used to manage and retrieve coded material, while theme development was done by hand with printed code summaries physically grouped. Phase three clustered codes into candidate themes; phase four tested candidate themes against coded extracts and the full dataset; phase five defined and named the themes; phase six produced the report.

An initial pass reproduced the interview-guide clusters as themes. We judged this an analytic failure rather than a result: a cluster summary answers the question of what

²⁷ Virginia Braun and Victoria Clarke, "Reflecting on Reflexive Thematic Analysis," *Qualitative Research in Sport, Exercise and Health* 11, no. 4 (2019): 589-97.

informants said about a topic, whereas a theme should answer the question of what pattern of shared meaning runs across the whole dataset.²⁸ The themes reported below were therefore deliberately developed across clusters, each resting on codes from at least two clusters. Table 3 maps each theme to its research question and originating clusters; Table 4 presents an excerpt from the coding trail to allow inspection of the analytic path.

Table 3.
Map of themes, research questions, and originating clusters

Theme	Answers	Originating clusters
1. Efficiency displaced into authentication	RQ1	Benefits; Challenges; Islamic values
2. <i>Sanad</i> as a regulative ideal met through improvised authority	RQ2	Challenges; Islamic values; Support
3. The non-automatable remainder	RQ3-a	Islamic values: Role
4. Proximity as epistemic capital	RQ3-b	Challenges; Support

Table 4.
Excerpt of the coding trail for Theme 1

Data extract	Informant	Initial codes	Candidate theme
“I still set aside time to re-check every output, so it is not that my work decreases; rather, the allocation of time shifts.”	P05	saved time relocates; checking non-negotiable; net workload unchanged	Efficiency is displaced into authentication
“Drafting time is far shorter, but I still have to review because of the local and Islamic scholarly tradition. Manual review is an obligatory step I never skip.”	P03	review as obligatory step; machine output as draft; contextual fit as teacher’s work	Efficiency is displaced into authentication
“It takes five or six attempts before the result is truly appropriate.”	P05	Cost of iteration; doctrinal fit as failure point	Efficiency is displaced into authentication
“If such a thing existed, the manual-verification burden I now carry alone could be greatly reduced.”	P02	verification as burden; borne alone; missing infrastructure	Efficiency is displaced into authentication

The study used neither inter-rater reliability nor peer verification of interpretation. Both techniques rest on the assumption that themes already exist in the data and can be identified accurately by an independent coder; reflexive thematic analysis rejects that assumption, treating the researcher’s interpretive activity as an analytic resource rather than a source of error to be controlled.²⁹ That rationale, however, applies specifically to

²⁸ Virginia Braun and Victoria Clarke, “To Saturate or Not to Saturate? Questioning Data Saturation as a Useful Concept for Thematic Analysis and Sample-Size Rationales,” *Qualitative Research in Sport, Exercise and Health* 13, no. 2 (2021): 201-16.

²⁹ Braun and Clarke, “Reflecting on Reflexive Thematic Analysis.”

reliability checking. Reflexive thematic analysis does not treat dialogue with peers as illegitimate; it rejects only the use of such dialogue to certify a single correct reading. The present study went beyond what the framework requires by also foregoing peer dialogue as an interpretive resource: coding, transcription, and theme development were all carried out by the first author alone. We record this as a limitation on the transparency of the analysis rather than as a neutral consequence of the chosen framework, and note in the Limitations that a collaborative interpretive audit would strengthen future work.

Five practices safeguarded analytic quality. First, transcripts were re-checked against the original recordings for accuracy. Second, a dated audit trail was kept comprising the codebook, staged theme maps, and analytic memos recording why a theme was retained, merged, or discarded, and is available on request. Third, a reflexive journal was maintained throughout the collection and analysis. Fourth, deviant and negative cases were sought and reported, including the absence of a pattern we had expected. Fifth, instrument-elicited material was distinguished from participant-introduced material throughout the findings, and every displayed quotation carries an informant code traceable to a specific point in the transcript.

Findings

From drafting to verification: the reallocation of time (RQ1)

PAI teachers reported substantial time savings at the drafting stage when composing teaching material with AI. P02 estimated an efficiency gain of roughly 60 percent compared with composing material from scratch, though she did not specify the basis on which this figure was derived (P02, instrument-elicited); it is best read as a subjective impression of magnitude rather than a measured value. Even so, using AI still demanded verification. As P05 put it:

I still set aside time to re-check every output, so it is not that my work decreases; rather, the allocation of time shifts, and more time is spent on verification than on composing material. (P05)

For other informants, review was not a choice but an obligation rooted in the Islamic scholarly tradition, and one that only the teacher could perform:

Drafting time is far shorter, but I still have to review because of the local and Islamic scholarly tradition. Manual review is an obligatory step I never skip. (P03)

Some of the errors found at the review stage concerned the religious substance, not merely the language, and thus required repeated reading. P05 encountered this when asking AI to illustrate a religious theme:

Sometimes I ask AI to illustrate an angel or an event from the time of the Prophet, and it produces an image that should not be depicted in Islam. So it takes five or six attempts before the result is truly appropriate. (P05)

In PAI, an AI error is at times a breach of a sharī boundary that forces the teacher to redo the process, not a technical slip fixed in one correction. Such a review has become a standard procedure. P01 runs verification before content reaches students, grounded in the category of *maqāṣid al-sharī'ah*, a term absent from the interview guide:

Every AI answer that touches a religious issue must pass several key questions before I present it to students, for instance, whether it contradicts *maṣlaḥah*, and whether it accords with the basic principles of the sharī'ah. (P01)

This procedure did not come from institutional policy; the teacher devised it from his own command of the Islamic sciences. P06 voiced a similar position in relational vocabulary, placing AI as a *khādim* (servant), not a *sayyid* (master):

AI is a *khādim*, a servant, not a *sayyid*, a master, in PAI. It must be kept in its proper place, so that it is not the one controlling us. (P06)

Time efficiency itself is an instrument-elicited category and thus not a novel finding. The finding is the direction in which time moves: time saved at drafting is absorbed into verification. AI does not reduce the teacher's burden; it relocates it.

The classical *sanad* as a condition of validity (RQ2)

All informants regarded verification of AI-generated religious content as obligatory. What distinguished them was the standard of authority deemed adequate, not the commitment to verify. One methodological caveat must be stated because it shapes how this theme should be read: the concept of *tabayyun* was explicitly named in the interview guide, so its frequent appearance is partly an instrument effect. Two things, by contrast, are data-driven: the varying ways informants operationalized verification, and the appearance of four classical Islamic epistemic categories, *sanad*, *maqāṣid al-sharī'ah*, the *ilm-ḥikmah* distinction, and *khalīfah fī al-arḍ*, none of which the guide ever mentioned by name.

The standards informants used ranged from the most formal to the most personal. P14 made the classical *sanad* a condition of valid knowledge; its very absence disqualified AI output as sound religious knowledge:

A clear scholarly *sanad* is a condition for sound religious knowledge, and AI lacks it. I use the Islamic *sanad* tradition as the primary filter for any AI-generated content. (P14)

Others set a more moderate standard, primary textual sources supplemented by personal consultation:

I always cross-check against primary sources, the Qur'an, hadith collections such as Ṣaḥīḥ al-Bukhārī and Muslim, and authoritative works of fiqh. When something is doubtful, I consult a more competent *‘ālim* or *ustadh*. (P03)

P01 arranged his standard as a tiered sequence combining digital tools, books, and peers:

I use Perplexity, which shows its sources, and only then cross-verify against reliable (*mu'tabar*) books. If doubt remains, I usually also ask a fellow PAI teacher or an *ustadh* whose learning I trust. (P01)

For P02, adequate authority was a personal network reached by direct message:

I check classical books and the opinions of trusted contemporary scholars, and sometimes consult a friend who is more expert. I have several contacts whose training is more focused on the sharī'ah sciences, so I message them privately. (P02)

For P06, the channel was a teacher-community forum:

I am active in the PAI subject-teacher forum, where I share best practices. My own school has no formal program, so I take the initiative through the teacher-community forum. (P06)

At the far end of formal transmission, P13 relied on a personal track record built over decades of teaching rather than on a chain of transmission:

I always verify against sources whose credibility I have come to know over twenty-one years of teaching. (P13)

P15 drew on the academic authority of a university lecturer rather than religious authority in the classical sense: "*I always verify by consulting a lecturer at UNP who is an expert in the field*" (P15).

For every informant, religious knowledge must rest on a traceable source of authority. What shifts is the content of "adequate authority": from the classical *sanad*, to standard texts, to a personally trusted individual, to a lecturer at the nearest campus. No informant could reconstruct the actual chain of transmission for an AI output, and none claimed to; *sanad* was invoked as a norm and then met through a contextually available substitute.

Affect and exemplarity as the irreplaceable domain (RQ3-a)

Teachers drew the limit of delegation not at the level of the machine's informational accuracy but at what must be modeled through direct presence. The role cluster did elicit the existence of this irreplaceable role, yet its content matched what informants

introduced on their own, relational and exemplary, rather than informational. Informants located the limit in the domain of affect:

Exemplary conduct, affection, emotional closeness. AI cannot weep alongside a struggling student, cannot offer an encouraging embrace, cannot serve as a model in worship. (P03)

P02 sharpened the limit into a distinction between modeling through real life and displaying through a screen:

A PAI teacher is a living example for students. AI cannot show what a devout prayer looks like or sincerity in worship. That is something to be modeled in real life, not through text on a screen. (P02)

P09 drew the same limit in the epistemic register, using a distinction the guide did not mention: AI can supply *‘ilm* (knowledge) but not *ḥikmah* (wisdom):

Knowledge can be obtained from anywhere, including from AI, but *ḥikmah* is the fruit of a spiritual process that cannot be reduced to mere data. (P09)

The role P09 attached to himself shifted accordingly, from authority over *‘ilm* to authority over *ḥikmah*. P14 tied this remainder back to the *sanad* theme, since for him the irreplaceable thing is the function of transmission itself:

The role of heir to the scholars, transmitting knowledge with a clear and trustworthy *sanad*. That role cannot be reduced to merely transferring data from machine to human. (P14)

P10 gave the remainder a moral frame through the concept of *khalīfah fī al-ard*, which he used to explain why verification is required before AI output is used: “*I teach students the concept of khalīfah fī al-ard in the context of the responsible use of technology*” (P10, participant-introduced).

The repetition across informants makes the pattern a theme, not a list of things a machine cannot do. Four recurring elements mark the content of the limit: embodied practice, wisdom as spiritual formation, the teacher as a node of transmission, and responsibility as steward. Even when discussing AI’s limits, teachers framed them in Islamic epistemic and relational vocabulary, rarely in generic pedagogical terms. This theme answers RQ3-a.

Proximity as epistemic capital (RQ3-b)

A comparison between P15 and P11 clarifies the pattern. Both are twenty-seven, both are early in their careers, and both teach in private schools, yet they occupy opposite structural positions. P15 teaches at a laboratory school adjacent to a university campus, was exposed to AI earlier, and verifies content by contacting a lecturer directly. Unprompted, he questioned his own advantage while naming peers in remote areas who lack such access:

I am well aware that my position is rather privileged because of my proximity to the academic environment of UNP, and that gives me many advantages my colleagues at other schools may not have, especially those in remote areas. In the future, I hope there will be some knowledge-sharing programs so that the benefits of AI can be felt more evenly. (P15)

P11 stands at the opposite pole. He teaches in a budget-constrained private school and sees AI as a means of democratising access to quality references, “*AI is a kind of tool to democratise access to quality references, and that is very important for private schools like mine*”, yet is hindered by infrastructure, since “*the Wi-Fi does not yet reach all the areas we need,*” and fears an outcome that inverts P15’s hope: “*the potential for a digital divide that widens the gap between public and private schools further*” (P11).

Between these poles lies a finer gradient. Some teachers learned without formal training: P06 came to AI through the subject-teacher forum and social media, while P13 relied on decades of teaching experience. The cost of adaptation is also unevenly distributed across generations; P05, aged fifty-three, said so directly: “At my age, fifty-three now, I do feel tired of having to keep learning new things” (P05).

The expectation of a certified platform is an instrument-elicited category, and its content was consistent among the informants who raised it. P05 wanted an AI platform certified by a competent Islamic authority, while P10 envisioned a religiously certified personal PAI tutor. Both placed the guarantee of authority with the institution rather than on the individual teacher. This theme answers RQ3-b. Table 5 summarises the four themes.

Table 5.
Summary of themes, research questions, status of supporting categories, and informants cited

Theme	RQ	Supporting categories and their status	Informants cited	Core claim
1. Efficiency displaced into authentication	RQ1	Time efficiency (instrument); relocation of time into verification (cross-cluster reading); <i>maqāṣid</i> and <i>khādim-sayyid</i> (informant)	P01, P02, P03, P05, P06	AI moves time from drafting to authentication; net burden unchanged, its nature altered.
2. <i>Sanad</i> as regulative ideal via improvised authority	RQ2	<i>Tabayyun</i> (instrument, hence not a finding); <i>sanad</i> , <i>maqāṣid</i> ,	P01, P02, P03, P06, P13, P14, P15	Commitment to verify is uniform; the adequate standard of authority varies.

Theme	RQ	Supporting categories and their status	Informants cited	Core claim
3. The non-automatable remainder	RQ3-a	<i>‘ilm/hikmah</i> , <i>khalīfah</i> (informant) Irreplaceable role (instrument); <i>‘ilm/hikmah</i> , <i>khalīfah</i> , teacher as node of transmission (informant)	P02, P03, P09, P10, P14	The limit is drawn at exemplarity and transmission, not at informational accuracy.
4. Proximity as epistemic capital	RQ3-b	Certification expectation (instrument); institutional proximity as access (from case contrast)	P05, P06, P10, P11, P13, P15	Verification capacity appears to be a function of proximity to authority; this was advanced as a testable hypothesis.
Negative case	Empirical premise in 1	Minangkabau <i>adat</i> category: zero occurrences	none; absence across P01-P15	No <i>adat</i> category emerged; the mobilized repertoire was normative-translocal. Because the guide did not prompt for <i>adat</i> , this absence is read cautiously.

Discussion

This study traced how PAI teachers in Padang appraise and use AI in teaching. One distinction runs through the findings. The commitment to verify AI output is universal across the sample. What varies is the standard of adequate evidence and the institutional capacity to meet it. This section sets the four themes against prior work, then turns the distinction into a framework and a set of testable claims. Each link to prior work is marked as confirmation, extension, or contradiction; extensions come first, and the one contradiction is explained rather than hidden.

Re-examining the time-saving claim through role reallocation (RQ1)

Research on educational-technology adoption tends to present AI as a time-saver for teachers. Our first finding does not deny the saving, which teachers describe as real and large, as P02’s unquantified estimate suggests. It adds a boundary condition. In a subject that requires content validity to be judged before material reaches students, the time saved on drafting returns as verification at the next stage. The claim that AI saves teachers’ time holds for most subjects but needs an exception where the task is to safeguard legitimacy, not only truth. For PAI teachers the saving is partly illusory, because the time moves rather than disappears. Empirical work outside religious

education points the same way: AI integration does not guarantee efficiency gains and can, under some task and organisational conditions, add rather than reduce a teacher's burden.³⁰ That the burden moves rather than disappears also invites a reading of the teacher's work in Islamic terms, where the worth of work is judged by more than its output.³¹

This finding extends research on the teacher's shifting role under AI. Zarghami-Hamrah and Ahmadi-Hedayat argue on philosophical grounds that teacher authority moves toward that of a critical coach who evaluates biased AI output.³² Wang, Cui, and Fang, studying two secondary-school EFL teachers in China, find that teachers renegotiate their professional identity around producing and evaluating GenAI content.³³ Both cast evaluation as the teacher's new role. Our data show this role is not an attitude or an identity alone but a measurable, costly reallocation of time, which P05 calls a shift in allocation and P01 formalises as a layered filter. What stays conceptual in the comparison studies is material in these teachers' practice.

Diverse standards of authority and the institutional limit (RQ2)

Islamic scholarship on AI has treated *tabayyun* as a single principle of verification. Meerangani and colleagues couple Qur'anic verification with a filtering model in a *Digital Tabayyun* framework,³⁴ and Syamsudduha and colleagues operationalise *tabayyun* as one dimension of a student-facing literacy scale.³⁵ Both treat *tabayyun* as an attribute a person holds or reports, and as a stand-alone principle. Our data extend this picture in two ways.

First, when teachers explained how they verify, they drew on categories far more varied than a single principle. The standard of authority they judged adequate ranged from

³⁰ H. Zha, W. Li, W. Wang, and J. Xiao, "The Paradox of AI Empowerment in Primary School Physical Education: Why Technology May Hinder, Not Help, Teaching Efficiency," *Behavioral Sciences* 15, no. 2 (2025): art. 240, <https://doi.org/10.3390/bs15020240>.

³¹ Mohammed Ghaly, "What Makes Work 'Good' in the Age of Artificial Intelligence (AI)? Islamic Perspectives on AI-Mediated Work Ethics," *Journal of Ethics* 28, no. 3 (2024): 429-453, <https://doi.org/10.1007/s10892-023-09456-3>.

³² Saeid Zarghami-Hamrah and Hamid Ahmadi-Hedayat, "Rethinking the Role of the Teacher: From Architect of Education to Realistic Collaboration with Artificial Intelligence," *Journal of Philosophical Investigations* 19, no. 52 (2025): 301-20, <https://doi.org/10.22034/jpiut.2025.67502.4119>.

³³ H. Wang, Y. Cui, and H. Fang, "Identity Tensions of EFL Teachers in Navigating GenAI-Empowered Language Teaching: A Case Study of Two Secondary School Teachers in China," *International Journal of Applied Linguistics* (2026, advance online publication), <https://doi.org/10.1111/ijal.70106>.

³⁴ Meerangani et al., "Digital *Tabayyun*."

³⁵ Syamsudduha et al., "Islamic AI Literacy."

the classical *sanad* demanded by P14, to the primary texts held by P03, to the layered sequence of tools, books, and peers arranged by P01, to the personal network reached by P02, the community forum used by P06, the twenty-one-year track record cited by P13, and the university lecturer invoked by P15. The ideal is shared; the content of adequate authority differs sharply. This fits Firdaus, Syihabuddin, and Fuady, who show that traditionalist and modernist Muslim communities in Indonesia approach AI through different epistemic frames.³⁶ Our sample matches the diversity of scholarly formation they map, and adds that the diversity is not only between communities but within a single narrow profession in one city.

Second, most scholarship treats *tabayyun* as an individual competence. Our findings add a boundary condition: in practice the exercise of *tabayyun* is constrained by institutional proximity to a source of authority, developed below under RQ3-b. One caution applies. Because the guide named *tabayyun*, its frequency owes partly to instrument effects and is not reported as a spontaneous finding. The findings are the four categories the guide never named: *sanad*, *maqāṣid al-sharī'ah*, the *'ilm-ḥikmah* distinction, and *khalīfah fī al-arḍ*.

The epistemic and theological limit on automating the teacher's role (RQ3-a)

The irreplaceable remainder holds across informants despite different vocabulary. P02 and P03 place it in embodied practice, modelling worship and offering emotional closeness. P09 places it in the epistemic register through the *'ilm-ḥikmah* distinction. P14 places it in transmission, with the teacher as heir to the scholars. P10 gives it a moral frame through *khalīfah fī al-arḍ*. The shared form is that the limit falls not at the machine's factual error but at what cannot be passed on as text.

Comparative research reaches this remainder but stops short. Wang, Cui, and Fang document identity tensions in which teachers foreground the human side of their role as GenAI absorbs parts of knowledge production.³⁷ Zarghami-Hamrah and Ahmadi-Hedayat count the cultivation of learners' self-awareness and social-emotional growth among the domains AI frees for the teacher.³⁸ Both cast the remainder as a general

³⁶ Muhammad Anang Firdaus, Muhammad Syihabuddin, and Zein Fuady, "Islam and Artificial Intelligence: Perspectives from Traditionalist and Modernist Muslim Communities in Indonesia," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 49, no. 1 (2025): 141-61, <https://doi.org/10.30821/miqot.v49i1.1333>.

³⁷ Wang, Cui, and Fang, "Identity Tensions of EFL Teachers."

³⁸ Zarghami-Hamrah and Ahmadi-Hedayat, "Rethinking the Role of the Teacher."

relational or affective competence, a reading supported by evidence that teachers locate AI's main deficiency in the socio-emotional domain and treat it as the site of a lasting human-AI complementarity.³⁹ Two points follow. First, the claim that AI cannot model worship or provide embodied presence is not itself new; it restates in an Islamic register a well-established finding that embodied, relational teaching resists automation. The contribution specific to PAI lies in three categories absent from that general literature: the *'ilm-hikmah* distinction as a mode of knowledge transmission (P09), *khalīfah fī al-arḍ* as a framing of the teacher's moral role (P10), and *sanad* as a chain of transmission binding teacher to student (P14). These categories, not the embodiment claim, are the theme's contribution: for PAI teachers the remainder carries a specific epistemic and theological charge, a distinction among kinds of knowledge, and a duty of stewardship, not relational warmth alone. The shift these teachers make, from transmitting information to cultivating what cannot be reduced to it, parallels a wider philosophical repositioning of the teacher from knowledge transmitter to guide who fosters judgment; what is distinctive is that they give that shift a specifically Islamic content through the *'ilm-hikmah* distinction.⁴⁰

Unequal access to authority and the absence of the *adat* category (RQ3-b)

The article's principal contribution sits here, and its evidential status must be stated plainly: a cross-sample pattern supports the claim, but a single case pair demonstrates it most sharply, so we advance it as a testable hypothesis rather than a settled relationship. Theme 2 shows that the adequate standard of authority varies. Theme 4 shows that the capacity to meet any standard also varies with institutional proximity, and the two move together. Variation in verification thus follows structural position rather than random differences in competence. The contrast between P15 and P11 is sharpest: same age, same generation, same school sector, opposite structural positions. Its value grows because the awareness of inequality came from P15 unprompted.

Two features of the sample bound this claim in opposite directions, and both must be stated. Recruitment through the MGMP favours teachers already tied into networks of

³⁹ S.-Y. Oh and Y. Ahn, "Exploring Teachers' Perception of Artificial Intelligence: The Socio-emotional Deficiency as Opportunities and Challenges in Human-AI Complementarity in K-12 Education," in *Lecture Notes in Computer Science*, vol. 14830 (Cham: Springer, 2024), 439-447, https://doi.org/10.1007/978-3-031-64299-9_41.

⁴⁰ L. Dobakhtī, "From Knowledge to Wisdom: Education, Identity, and Curriculum in Shaping Life Today," *Journal of Philosophical Investigations* 19, no. 53 (2026): 399-422, <https://doi.org/10.22034/jpiut.2025.68479.4158>.

collegial authority, so the most isolated teachers, whose ties are weakest, are under-represented. Because the distributional claim concerns exactly those teachers, the disparity here is a lower bound: the true gap among teachers outside any comparable network is likely larger than this sample can show. Pulling the other way, the sharpest demonstration rests on one matched pair. A single pair cannot establish a distribution across a profession; at most it shows what is possible for two teachers in opposite structural positions. On both counts, Theme 4 is a testable hypothesis about the direction of an effect, not a measured account of its size.

The finding accords with Willian and colleagues, and the agreement strengthens both studies. Using interpretative phenomenological analysis with lecturers in Indonesia, they found that teachers exercise moral agency under three constraints: absent institutional policy, ethical ambiguity, and uneven access to technology.⁴¹ Our findings agree on distribution and access, though sample, level, and subject differ, which adds external evidence that unequal access is a general pattern rather than one study's peculiarity. Our contribution extends theirs to the Islamic epistemic domain, because what is unequal here is not only access to tools or policy but access to the scholarly authority that anchors verification. The same concern appears beyond language education: an interpretative-phenomenological study of secondary-school teachers found that adopting new education technology wholesale can widen, rather than reduce, the exclusion of already-disadvantaged learners along lines of socio-economic background and support.⁴² Within Islamic religious education, a systematic review likewise names technological disparity as a central implementation problem, alongside the tension between algorithmic knowledge and religious authority.⁴³

The demand for a certified platform fits this frame. It asks for an institutional solution to a burden so far carried alone. Teachers want authority supplied and guaranteed from outside because the effort to attain it is spread unevenly.

⁴¹ A. Willian, N. Rohmah, J. M. Ramdani, E. W. Dewi, and N. Fadhilah, "Moral Teacher Agency in AI Integration: An Interpretative Phenomenological Study of Writing Instruction by Indonesian English as a Foreign Language (EFL) Lecturers," *Asia Pacific Journal of Educators and Education* 41, no. 1 (2026): 219-245, <https://doi.org/10.21315/apjee2026.41.1.10>.

⁴² S. M. Ojetunde, "Left-Behind Learners: Exclusion-Inclusion Paradox of 4IR/5IR Education Technology," *E-Learning and Digital Media* 23, no. 2 (2026): 174-189, <https://doi.org/10.1177/20427530241239407>.

⁴³ Arif et al., "Artificial Intelligence in Islamic Religious Education."

The negative case needs separate treatment, since it bears on why the site was chosen. The introduction assumed the Minangkabau *adat* category might serve as an interpretive resource for teachers facing AI. No such category appeared, with zero occurrences across all fifteen transcripts. The cautious reading is a boundary observation, not a settled boundary condition. In a region that upholds *adat basandi syarak, syarak basandi Kitabullah* as an institution, the resources these teachers drew on for AI came from the translocal scholarly tradition, and local custom did not surface.

Two caveats must accompany this, and together they weaken the most-likely-case inference more than a first reading suggests. The interview guide, named Tabayyun, gave a whole cluster to AI and Islamic values and so primed the normative-Islamic domain. *Adat* had no comparable cluster and was never named, so the four classical categories surfaced inside a structure that had already opened space for Islamic reflection, whereas *adat*'s absence occurred inside a structure that opened no space for it. The two absences are not equivalent, and it would overstate the symmetry to say the Islamic categories and *adat* were alike unmentioned in the guide: the specific terms went unmentioned, but the domains were not primed alike. The data therefore cannot separate two explanations for the absence of *adat*: that it is peripheral to how these teachers reason about AI, or that the instrument gave no prompt to raise it. This limits the instrument's design; it is not evidence for or against the relevance of local custom. The defensible claim is narrow: no *adat* category appeared anywhere in the corpus, not even unprompted, while the four Islamic categories did appear unprompted but within a primed domain. The most-likely-case corollary weakens accordingly, because the design was built to surface Islamic vocabulary and least able to surface custom vocabulary.

Theoretical contribution

This section gives three contributions, ordered from best to least grounded, so the reader can weigh each directly. The measurement literature treats *tabayyun* as an attribute of individual literacy. Our data add a boundary condition: in practice the application of *tabayyun* is constrained by institutional proximity to authority, so verification quality depends not only on individual commitment but on structural position. The claim is falsifiable. If verification quality is unrelated to institutional position once individual commitment is controlled, the claim fails. It predicts that, at equal commitment, teachers closer to scholarly authority hold to stricter verification standards. The distinction matters

because it changes the target of intervention: if *tabayyun* is a competence, training can address it; if it is a distributed capacity, training alone may widen the gap. As stated under RQ3-b, this contribution is a hypothesis, and its strongest support, the P15/P11 contrast, is a single case pair, not a demonstrated distribution.

In classical usage, *sanad* is a formal chain with named intermediaries. Our data show *sanad* working as a regulative ideal: teachers invoke it as a norm even when the actual chain cannot be reconstructed, because AI output has no *isnād*, and they then meet it through varied, improvised, and unequal substitutes. This extension is falsifiable. If teachers who invoke *sanad* consistently hold and use a real chain of transmission to verify AI content, the claim fails. It holds because the appeal to the norm outruns the availability of its formal object.

Normative scholarship treats *tabayyun* as a single duty of verification. The four participant-introduced categories suggest that a detailed account of verifying AI-generated religious content can be decomposed into four epistemic operations. The first is stewardship, *khalīfah fī al-ard*, which answers why verification is obligatory. The second is source validity, *sanad*, which asks where the content comes from and whether its chain is legitimate. The third is benefit toward the ultimate aim, *maqāṣid al-sharīʿah*, which asks whether the content supports *maṣlahah* and avoids *mafsadah*. The fourth is the limit on the kind of knowledge, the *ʿilm-hikmah* distinction, which asks whether a matter is knowledge a machine can supply or wisdom it cannot. The status of this four-layer framework must be stated. No single informant articulated all four layers; each rests on categories raised by different teachers, and the authors built the framework by synthesising those categories, rather than finding it intact in any account. It is therefore composite and hypothesis-generating, not an empirical finding, and whether the four layers operate together in one teacher's reasoning remains to be tested. Stating this plainly marks the framework as a proposition offered for testing, with the burden of confirmation left open.

Practical implications

Each implication below follows from the findings and names a stakeholder and an action. For teacher-training providers and PAI subject-teacher forums, an AI-literacy programme aimed only at individual skills, writing prompts, or judging outputs risks widening an existing gap. Theme 4 gives the reason: on the present evidence the binding

constraint is access to scholarly authority, not skill. The action is to pair training with access to reachable authority, for example a structured partnership between the MGMP and Islamic higher-education institutions, or a shared verification-and-reference service staffed by qualified scholars, so that teachers in budget-constrained private schools can reach the standard P15 now reaches informally through proximity to a campus. Because the distributional claim is a hypothesis, such a partnership is also the natural place to test it.

For policymakers and Islamic-education authorities, teachers' hope for a certified platform is a call to externalise and guarantee the layers of source and benefit. The action is to build a certified reference layer or a verified search source for PAI content, rather than leaving each teacher to reconstruct authority alone. One caveat: certification can carry the *sanad* and *maqāṣid* layers, but not the *ḥikmah* and *khalīfah* remainder, which stays the teacher's responsibility and cannot be handed to a platform.

For school managers and local government, the material base is a prerequisite, not a secondary concern. While infrastructure of the kind P11 described stays unevenly available, the promise that AI democratises access can turn into the widening gap teachers feared.

Limitations

Several limitations bound these findings, and each points to a follow-up study. The research covered one city, one profession, and fifteen informants. The sample size rested on information power, not statistical representativeness, so the intended generalisation is analytic, not to a population. The Padang pattern need not hold under a different institutional configuration.

Recruitment through the MGMP carries a selection bias with a specific analytic cost. Forum-active teachers are better connected to networks of collegial authority, so the most isolated teachers are under-represented in the way that matters for the distributional claim. The observed disparity is therefore best read as a conservative lower bound, as noted under RQ3-b.

One researcher conducted the analysis and all transcriptions. Reflexive thematic analysis does not require inter-rater reliability, and we do not treat its absence as a fault. It does not, though, rule out peer dialogue as an interpretive resource, and the lack of such dialogue limits the transparency of the analysis. A collaborative interpretive audit, in

which a second analyst engages the coded material as a critical interlocutor rather than a reliability check, would strengthen later work.

The data are teachers' accounts of their practice, not observation of it. No classroom observation took place. Every claim about how verification is performed therefore rests on informant narratives, which the wish to appear a responsible professional in an interview about religious knowledge also shapes. Supporting documents situated the narratives in context rather than validating them, so we do not claim triangulation as validation.

Finally, the instrument primed the Islamic-normative domain, through a dedicated cluster and the naming of *tabayyun*, but did not prime the local-custom domain. The absence of an *adat* category therefore cannot show that *adat* is peripheral to these teachers' reasoning; it may instead reflect the instrument's silence. This is a limitation of design, not a finding about custom.

Future research

These directions follow from the limitations above. First, the four-layer framework needs testing at the individual level; an observational or longitudinal study of actual verification episodes could show whether the layers operate within one teacher or appear only when the sample's repertoire is aggregated. Second, the distributional claim needs quantitative testing; a design that measures verification quality against institutional proximity while controlling for individual literacy could test whether verification quality relates to structural position, an instrument such as the AILS-IIUS could be combined with a measure of access, and it should oversample teachers outside professional forums to address the lower-bound problem noted above. Third, a mediated-authority intervention is worth piloting; a verification partnership between an MGMP and a higher-education institution could be built and tested to see whether it narrows the gap between teachers with different access. Fourth, the negative case needs testing with an instrument that names no normative concept and that provides a custom cluster parallel to the Islamic-values cluster, so the relevance of the *adat* category can be assessed without instrument steering. Fifth, the scope should extend beyond Padang into *madrasah* and

other Muslim settings with different institutional configurations, including those along the traditionalist-modernist axis mapped by Firdaus, Syihabuddin, and Fuady.⁴⁴

Conclusion

This study examined how senior-secondary PAI teachers in Padang appraise and use generative AI, and found one pattern behind the apparent variation. All fifteen teachers treated verification of AI-generated religious content as non-negotiable, and all located the irreplaceable part of their role in what cannot be conveyed through text. What separates them is not whether they verify but the standard they set for adequate evidence and the capacity to meet it; the two vary together, tracking proximity to scholarly authority.

The study proposes a four-layer analytic framework for how verification is narrated: stewardship, source validity, benefit toward the ultimate aim, and the limit on the kind of knowledge that can be delegated. The framework is a theoretical proposal informed by the data, not a structure found intact in any single account; no informant used all four layers, and it is offered as composite and hypothesis-generating. On the strength of the whole sample, and as a hypothesis for further testing rather than a settled finding, the study reframes Islamic AI literacy from an individual competence into a distributed capacity. The practical consequence is direct: a programme that trains individual skills but leaves access to authority uneven will widen the gap among teachers rather than close it, unless it also brings scholarly authority within reach of those who lack it.

⁴⁴ Firdaus, Syihabuddin, and Fuady, "Islam and Artificial Intelligence."

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