

Internalizing Smong Local Wisdom into Disaster Mitigation Curriculum: A Contextual Islamic Education Model

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ABSTRACT

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Simeulue Island, Aceh, Indonesia, lies within one of the world's most tsunami-prone seismic zones. Yet during the catastrophic 2004 Indian Ocean tsunami, which killed more than 230,000 people across the region, the island's community recorded only seven fatalities. This study aims to develop a contextual Islamic education model that internalizes Smong, the oral-tradition tsunami early-warning knowledge of the Simeulue community, as the core of a disaster mitigation curriculum. A qualitative grounded theory design was employed. Data were collected from January to December 2025 through in-depth interviews with 15 key informants, focus group discussions, participatory observation, and document analysis in three sub-districts of Simeulue Regency. The internalization of Smong proceeds through four progressive stages: *ma'rifah* (knowing), *fahm* (understanding), *tasdiq* (believing), and *amal* (acting). These stages align with the *maqasid al-shari'ah* principle of *hifdz al-nafs* (preservation of life). The study proposes a five-component Smong-Based Disaster Mitigation Curriculum, *'aqidah*-based disaster awareness, *fiqh* of evacuation, *sirah* of survival, *akhlaq* in emergency, and local wisdom integration. This study is among the first to systematically integrate an indigenous oral-tradition disaster knowledge system into a formal Islamic curriculum framework grounded in *maqasid al-shariah*, extending prior scholarship on local-wisdom-based Islamic education into the domain of disaster-mitigation. Islamic education in disaster-prone regions must be contextual and disaster-responsive. The findings suggest that *Smong* can be transformed from folklore into a living, life-saving curriculum model that may be transferable to comparable contexts in Indonesia and beyond.



Keywords: Contextual Islamic Education; Disaster Curriculum; Local Wisdom; Smong; Tsunami Mitigation.

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INTRODUCTION

Tsunami remain among the most devastating natural hazards facing coastal communities, particularly along the subduction zones of the Indian and Pacific Oceans. Indonesia, which situates at the junction of three major tectonic plates, experiences frequent and powerful large earthquakes, including capable of generating tsunamis of catastrophic magnitude (Lavigne et al., 2007; McAdoo et al., 2006). On 26 December 2004, a magnitude-9.1 earthquake off the coast of Aceh triggered an Indian Ocean tsunami that killed more than 230,000 people across fourteen countries, with Aceh Province bearing the heaviest toll (USGS, 2005). Against this backdrop of mass destruction, Simeulue Island stands out as a remarkable exception: of its approximately 80,000 residents, only seven fatalities were recorded, a mortality rate of nearly zero (Gaillard et al., 2008; Rahman et al., 2022). Some secondary reports give figures between six and eight, but seven is used here because it is the value most consistently reported in official post-disaster records and the academic literature.

This survival is widely attributed not to modern early-warning technology but to *smong*, an indigenous oral tradition transmitted across generations through *nandong*, a form of sung poetry that teaches people to recognize of earthquake-tsunami signs and prescribes immediate upland evacuation when the sea recedes (Nadhiroh, 2015; Suryani et al., 2020). One of the most cited *nandong* verses states “*Uwot smong, linon mihaw, ano mihaw ede mong, emi mihaw lao we uwi*” (means that “if an earthquake occurs and is followed by the receding of the sea, immediately run to the hills”). The 2004 catastrophe vindicated this knowledge: in the absence of any instrumental tsunami warning for the Indian Ocean, it functioned as an effective indigenous early-warning system (Febriani et al., 2022; Triyanti et al., 2021).

Despite its widely reported life-saving value, *smong* has not been systematically integrated into the formal curricula of disaster-prone areas (Triyanti et al., 2021). Islamic education in Indonesia is a major domain moral and character formation for millions of muslim students in madrasahs at the primary (MI), lower secondary (MTs), and upper secondary (MA) levels. Yet it has focused predominantly on theological, ritual, and moral dimensions without linking these to disaster preparedness (Hadi, 2019; Zulfikar et al., 2020). This represents a critical gap, because Islam places the preservation of life (*hifdz al-nafs*) among the five higher objectives of *Shari’ah* (*maqasid al-shariah*), most often ranking it second after the preservation of religion (Al-Mubarak, 2018; Auda, 2008). If Islamic education is to be aligned with *maqasid al-shariah*, it should address life-threatening risks systematically and contextually.

Experiential and contextual learning theories, associated with (Dewey, 1938) and (Kolb, 1984), hold that meaningful learning must be rooted in the learner’s lived experience and environment. Situated learning theory (Lave & Wenger, 1991) further

adds that knowledge cannot be separated from the community of practice in which it is embedded. Applied to the Simeulue, this suggests that *nandong* is not merely cultural heritage but an epistemological resource: through it, the Simeulue community, a community of practice, has encoded and transmitted tsunami survival knowledge across generations. Freire's (1970) critical pedagogy adds a third dimension: education should be dialogic and liberatory, freeing students from vulnerability rather than perpetuating a "banking" model in which knowledge is transferred to passive recipients. Recent research on disaster-risk education and indigenous-knowledge pedagogy likewise emphasizes contextual, community-embedded approaches (Febriani et al., 2022; Triyanti et al., 2021).

Recent scholarship has also highlighted the potential of local wisdom in Islamic education. Santoso et al. (2025) argue that Papuan folklore carries genuine preventive educational value, Idris et al. (2025) showed that financial management in Islamic institutions can be grounded in local wisdom, and Syahputra et al. (2025) illustrated how indigenous Gayo leadership models preserve cultural identity in educational settings. These studies converge on the conclusion that contextualised; locally embedded knowledge enriches Islamic educational practice. In a similar vein, Prasetyo et al. (2025), using a grounded theory approach, found that organizational resilience in *pesantren* depends on systematic internalization processes that move beyond individual-centred approaches to collective, institutionalized knowledge transmission, a finding directly relevant to the *smong* case.

Despite this growing body of evidence, the literature consulted for this study, including recent studies on contextualized Islamic education spanning financial management (Idris et al., 2025), accreditation policy (Ilyas et al., 2025), and leadership identity (Syahputra et al., 2025), revealed no published curriculum model that formally integrates *smong* into Islamic education at the *madrasah* level. This observation rests on the literature consulted for this study rather than a formal systematic review. Existing disaster education programmes in Indonesia, where they exist, are confined to science or social studies subjects (BNPB, 2018; Kemendikbud, 2019). Meanwhile, Simeulue faces a scientifically estimated 95% probability of another megathrust earthquake in the next fifty years (BMKG, 2024; Rizal et al., 2023), making the urgency of curriculum integration not merely academic but existential. This estimate refers to the probability of a further megathrust event of magnitude ≥ 8.5 within the Simeulue seismic gap over a fifty-year window, based on the probabilistic seismic hazard source model reported by BMKG (2024) and Rizal et al. (2023). Like any long-term probabilistic hazard estimate, it carries substantial uncertainty.

This study therefore addresses three research questions: (1) How is *smong*, as local wisdom, understood and practiced by the Simeulue community today? (2) Through what process can *smong* values can be internalized into Islamic education? (3) What tsunami disaster mitigation curriculum model, based on the internalization *smong*, is appropriate for contextual Islamic education? The remainder of this article presents the methodology, findings organized around the three research questions, a comparative discussion with relevant theories and prior research, and a conclusion with implications for curriculum policy and future research.

METHOD

This study used a qualitative approach with a grounded theory design, drawing on Charmaz (2014) and Corbin & Strauss (2015). Grounded theory was chosen because the aim is to construct a substantive theory of *smong* internalization in Islamic education from empirical data rather than to test a predetermined hypothesis, an approach also taken by Prasetyo et al., (2025) in building their *pesantren* cadre-development model. Figure 1 summarizes the research design, including participant selection, data collection, analysis, and trustworthiness strategies.

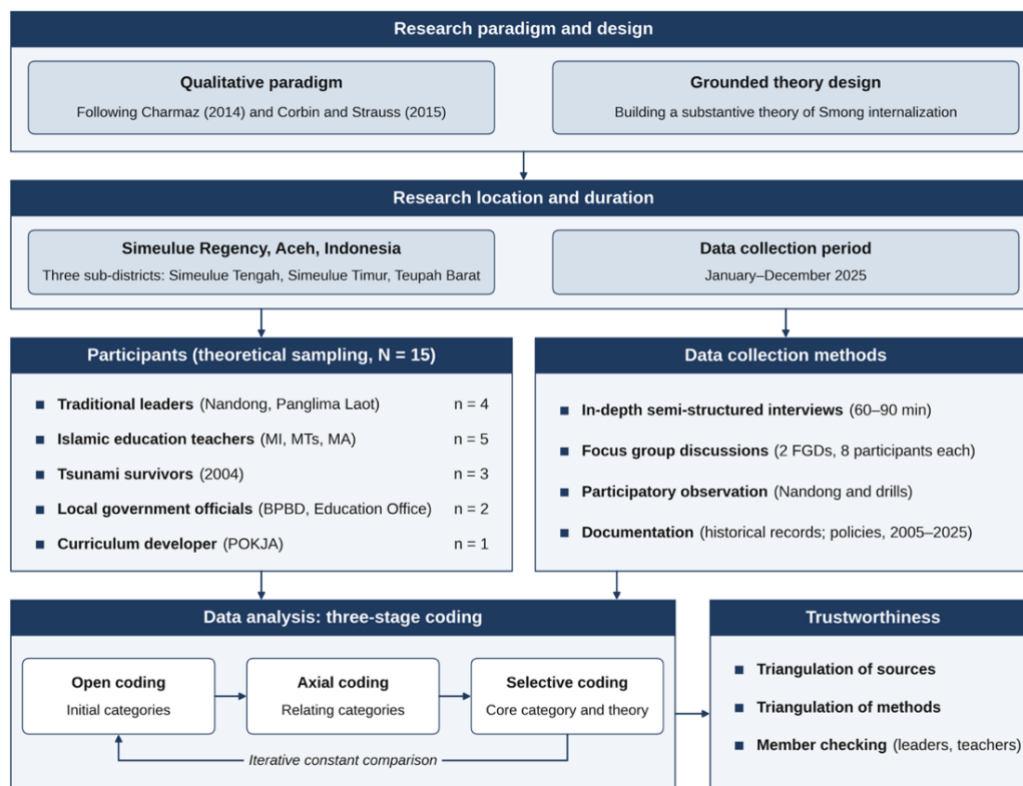


Figure 1. Research Methodology Flowchart

As illustrated in figure 1, the study employed theoretical sampling to recruit 15 key informants across three sub-districts of Simeulue Regency. The following sections detail each component of the methodology. Data collection was conducted from

January to December 2025 across three sub-districts of Simeulue Regency Simeulue Tengah, Simeulue Timur, and Teupah Barat selected using two explicit criteria: (a) documented continuity of active *nandong/smong* oral-tradition practice, verified through village-level records and traditional-leader testimony, and (b) presence of at least one MI (*Madrasah Ibtidaiyah*), one MTs (*Madrasah Tsanawiyah*), and one MA (*Madrasah Aliyah*) institution (three levels of the Islamic schooling system in Indonesia) within the sub-district, ensuring coverage across all three *madrasa* levels targeted by the proposed curriculum.

Fifteen key informants were selected purposively through theoretical sampling: four traditional leaders (*nandong* performers and *panglima laot*), five Islamic education teachers from MI, MTs, and MA levels, three tsunami survivors from 2004, two local government officials from the Regional Disaster Management Agency (BPBD) and the District Education Office, and one curriculum developer from the POKJA (working group) Curriculum.

Data collection methods included in-depth semi-structured interviews (60-90 minutes each), two focus group discussions (eight participants each) with teachers and traditional leaders, participatory observation at community *nandong* sessions and school disaster drills, and documentation of historical *smong* records, school documents, and local government disaster policies from 2005 to 2025. In total, the twelve-month fieldwork yielded 15 individual interview transcripts (approximately 18 interview-hours), two FGD sessions (approximately 3 hours), an estimated 25 hours of participatory observation, and 12 documentary sources.

Data analysis followed the three-stage coding procedure of Corbin and Strauss (2015), to generate initial categories from raw data, axial coding to relate categories around a central phenomenon, and selective coding to develop a core category and integrate the emerging theory. Trustworthiness was established through triangulation of sources (informants, documents, observations), triangulation of methods (interviews, FGD, observation), and member checking with two traditional leaders and two Islamic education teachers. Coding proceeded through iterative constant comparison, in which exemplar open codes *i.e.* *spontaneous evacuation*, *amanah obligation*, *emotionally encoded verse* were compared across transcripts and progressively collapsed into the axial categories underlying the four internalization stages; an audit trail of coding memos was maintained throughout, and disagreements between the two coders were resolved through discussion and re-examination of the source transcript. Data collection continued until theoretical saturation was judged to have been reached, indicated by the recurrence of the same categories in the final two interviews without the emergence of new properties.

Institutional ethical clearance was obtained prior to fieldwork, and informed consent was secured from all informants; interviews with the 2004 tsunami survivors followed a trauma-sensitive protocol that allowed participants to pause, decline questions, or stop the interview at any time.

RESULTS AND DISCUSSION

Smong as Living Local Wisdom: Community Understanding and Practice

The research found that the Simeulue community's relationship with *smong* is not passive folklore preservation but an active, duty-laden practice. Traditional leaders unanimously framed *smong* as a divine trust: "*Smong* was given by Allah to our ancestors. Ignoring *smong* means ignoring Allah's warning. In Islam, saving oneself from disaster is a form of jihad" (*Nandong* traditional leader, 65 years). This framing reflects the concept of *amanah* (trust) in Islamic epistemology knowledge received from preceding generations carries a moral obligation of transmission and application. This unanimity was consistent across the four traditional leaders interviewed; no discrepant or sceptical account of *smong*'s divine framing was encountered during data collection, though the researchers note their own positionality as outsiders to the Simeulue community, which may have shaped how openly informants expressed dissenting views. This absence of negative cases is reported as a limitation of the sample rather than as evidence of uniform belief across the wider community.

Historically, *smong* derives from the 1907 Simeulue tsunami, a catastrophe whose survivors encoded their survival experience into oral verse specifically so that subsequent generations would not face the same unpreparedness. The 2004 event then functioned as empirical validation of this tradition: residents who had internalized the *smong* signs earthquake followed by a distinctive sea recession evacuated spontaneously and rapidly, while those with weaker exposure to the tradition showed greater hesitation (Gaillard et al., 2008; McAdoo et al., 2006). The oral form of transmission through *nandong* poetry, sung in family and community gatherings, ensured that the knowledge was emotionally encoded and readily recalled under stress conditions consistent with findings in cognitive psychology on emotion-assisted memory (Stallings, 2002; Wisner et al., 2004). This connection is offered as an interpretive conjecture rather than an empirical finding, since no data on recall, memory, or cognitive processing were collected in this study; a more cautious framing that flags it explicitly as a plausible mechanism warranting future investigation is therefore adopted here.

The research identified six core *smong* values with direct Islamic educational foundations (Table 1). These are: *tahapan* (recognizing sequential signs), *segera lari*

(immediate non-hesitant evacuation), *saling ingatkan* (mutual warning of family and neighbors), *pasrah setelah usaha* (submission to God after maximum human effort), *harta tidak penting* (prioritization of life over property), and *cerita turun-temurun* (intergenerational oral transmission as obligation). Each of these values maps onto specific Quranic injunctions and hadith, demonstrating that *smong* is not in tension with Islamic theology but is an expression of it in local vernacular.

Table 1. Core *Smong* Values and Their Islamic Foundations

N o.	<i>Smong</i> Value	Meaning	Islamic Foundation	Quranic Reference
1	<i>Tahapan</i> (recognizing signs)	Earthquake followed by receding sea as tsunami precursor	Signs of divine power in nature	Al-Infitar 82:1–4
2	<i>Segera lari</i> (immediate evacuation)	No hesitation; run immediately to higher ground	Patience and alertness in trial	Ali Imran 3:200
3	<i>Saling ingatkan</i> (mutual warning)	Warn family and neighbours without delay	Obligation to advise one another in truth	Al-Asr 103:3
4	<i>Pasrah setelah usaha</i> (submission after effort)	Evacuate maximally, then surrender outcome to Allah	Self-effort precedes divine change	Ar-Ra'd 13:11
5	<i>Harta tidak penting</i> (wealth is not important)	Life takes unconditional priority over property	Warning against distraction by worldly accumulation	At-Takathur 102:1–2
6	<i>Cerita turun-temurun</i> (intergenerational transmission)	Oral tradition as communal religious duty	Protecting family from harm	At-Tahrim 66:6

Source: Field data, 2025.

The Four-Stage Internalization Process

The grounded theory analysis revealed a coherent four-stage model of *smong* internalization, derived from the convergent accounts of teachers, traditional leaders, and survivors. These stages *ma'rifah* (knowing), *fahm* (understanding), *tasdiq* (believing), and *amal* (acting) mirror the epistemological framework described by Al-Ghazali (2010); Sya'bana et al., (2024); Syadiyah & Rindaningsih, (2024), knowledge without action is incomplete, and action without internalized belief is performative rather than transformative. Critically, none of the five Islamic education teachers interviewed had formally incorporated *smong* into their lesson plans prior to this study, confirming the gap identified in the literature (Hadi, 2019; Pinar, 2012; Praptowiyarjo, 2024; Zulfikar et al., 2020).

Table 2 illustrates the operational detail of each stage. The four-stage sequence emerged from a visible coding trail: open codes describing informants' accounts of learning, understanding, believing, and acting were grouped inductively during axial coding, and their correspondence to Al-Ghazali's *ma'rifah-fahm-tasdiq-amal* schema was recognized only after the categories had stabilized, rather than the schema being applied a priori to sort the data. Illustrative of this process, one teacher described moving from rote memorization to genuine conviction only "after I connected the verse to my own duty to protect my students" (Islamic education teacher, MTs) a contrasting case to informants who reported the stages occurring in rapid succession

during the 2004 event itself, suggesting the pacing of internalization varies with prior exposure to the tradition.

Table 2. Stages of *Smong* Internalization in Islamic Education

Stage	Process	Educational Method	Duration	Assessment Indicator
<i>Ma'rifah</i> (Knowing)	Memorize <i>nandong</i> verses	Storytelling, chanting with <i>nandong</i> performer	2 weeks	Recite one <i>nandong</i> verse correctly
<i>Fahm</i> (Understanding)	Explain meaning of <i>smong</i> signs	Group discussion, Socratic Q&A	3 weeks	Correctly describe 3 tsunami precursor signs
<i>Tasdiq</i> (Believing)	Connect <i>smong</i> with religious duty	Guided reflection, lecture on <i>hifdz al-nafs</i>	1 week	Written reflection linking life to <i>amanah</i>
<i>Amal</i> (Acting)	Practice evacuation simulation	Monthly drill, role-play, route simulation	Monthly (ongoing)	Complete evacuation in < 10 minutes

Source: Field data and FGD results, 2025.

The evacuation-completion benchmarks in Table 2 (and the drill-time targets in the implementation roadmap below) were derived from FGD consensus among teachers and traditional leaders rather than from baseline measurement or pilot testing, and their attainability for pupils at the earliest MI grade levels (4-6) has not yet been empirically verified; this is flagged here as a target for pilot validation prior to full-scale rollout.

The *Smong*-Based Disaster Mitigation Curriculum (SBDMC) Model

The integration of the four internalization stages with the six core *smong* values produces the *Smong*-Based Disaster Mitigation Curriculum (SBDMC) a five-component model operationalizable across MI, MTs, and MA grade levels. It should be clarified that the four internalization stages and the six core *smong* values (above) constitute the grounded theory generated directly from the empirical data, whereas the specific SBDMC component structure, grade level allocations, and time allocations presented below are design recommendations derived from that theory together with the researchers' curriculum-development judgment and the FGD roadmap discussions; they have not themselves been empirically tested. The five components are presented in Table 3 and elaborated below.

Table 3. Components of the *Smong*-Based Disaster Mitigation Curriculum (SBDMC)

Component	Focus	Islamic Basis	<i>Smong</i> Integration	Grade Level	Time
<i>Aqidah</i> -based disaster awareness	Disasters as divine creation; prevention as faith expression	<i>Hifdz al-nafs</i>	Earthquakes and sea recession as divine signs	Grade 4–6 MI	4 h/semester
Fiqh of evacuation	Rules of evacuation: life priority, minimal possessions	<i>Al-Darurat tubih al-mahzurat</i>	Immediate, unhesitating running	Grade 7–9 MTs	6 h/semester

Component	Focus	Islamic Basis	Smong Integration	Grade Level	Time
<i>Sirah</i> of survival	Prophetic and survivor exemplars of resilience	<i>Uswatun hasanah</i>	1907 and 2004 smong narratives	Grade 7–9 MTs	4 h/semester
<i>Akhlaq</i> in emergency	Helping others, not panicking, priority to vulnerable groups	<i>Tadarus al-nafs</i>	<i>Saling ingatkan</i> (mutual reminding)	Grade 10–12 MA	6 h/semester
Local wisdom integration	<i>Nandong</i> poetry as primary learning medium	<i>Al-'Urf</i> (custom as legal source)	<i>Smong</i> as core curriculum text	All levels	Local content

Source: Field data and curriculum analysis, 2025.

Implementation Strategy: Phased Rollout 2026–2029

Focus group discussions (FGDs) with teachers and officials (Education Office) informed a four-phase implementation roadmap for the SBDMC. In the first phase, dissemination and socialization (2026) the SBDMC would be introduced to all *madrasahs* in Simeulue Regency and fifty master teachers would be trained. The [Ministry of Religious Affairs District Office] and the Simeulue Regency Disaster Management Agency (BPBD) would lead this phase. In the second phase, piloting (2027), the SBDMC would be implemented in ten schools (three MI, four MTs, three MA), with the success indicator being 100% of students completing the evacuation drill. In the third phase, expansion (2028) rolls the curriculum out to all 48 Islamic schools in the regency, targeting a drill completion time of five minutes. In the fourth phase, evaluation and replication (2029), the program's impact would be assessed and replication would begin in two other districts (Aceh Besar and Pidie Jaya) and West Sumatra Province, with the goal of provincial curriculum policy integration. Table 4 summarises the stakeholder roles identified in the FGD.

Table 4. Leadership Roles in SBDMC Internalization

Leader Type	Role	Specific Actions	Impact
Kyai/Principal	Policy authority	Issuing decree to integrate smong into weekly khutbah and Friday prayers	Institutional legitimacy
Islamic teacher	Implementer	Designing lesson plans; leading evacuation drills	Direct student behaviour change
Nandong performer	Resource person	Reciting smong verses at school assemblies and cultural events	Preservation of oral authenticity
Panglima laot	Drill supervisor	Leading practical evacuation simulations to upland routes	Practical expertise transfer
Parents/community	Reinforcer	Practising smong at home; reminding children during family gatherings	Sustainable cultural embedding

Source: FGD results, 2025.

Discussion

The SBDMC model presented in this study advances the literature on contextual Islamic education in several significant ways. First, it operationalizes the *maqasid al-shariah* principle of *hifdz al-nafs* beyond its conventional theological discussion into a structured, graded curriculum. Ilyas et al., (2025), Al-Shatibi, (2012), and Auda, (2008) articulate *hifdz al-nafs* as a categorical imperative of Islamic law, yet existing Islamic education curricula in Indonesia treat it largely as a doctrinal abstraction (Hadi, 2019). The SBDMC transforms this principle into teachable units, observable behaviors, and assessable competencies.

Second, the four-stage internalization model [*ma'rifah, fahm, tasdiq, amal*] exhibits close structural alignment with both Al-Ghazali's epistemology (knowledge → belief → action) and character education triad of moral knowing, moral feeling, and moral action (Hantoro et al., (2024); Lickona, (1991); Nabila et al., 2025). This convergence across Islamic scholastic and Western psychological frameworks suggests that the model has theoretical robustness that transcends cultural specificity. The alignment with Kohlberg's (1981) post-conventional moral development stage, in which students internalize disaster preparedness as a universal ethical obligation rather than a rule imposed from outside, which also indicates a pedagogical pathway from compliance to genuine conviction.

Third, the SBDMC's deployment of experiential learning cycle (Aceh, 2005; Kolb, 1984) and Lave & Wenger's (1991) situated learning theory provides a sound basis for the pedagogical methods proposed. *Nandong* performances by community elders represent the concrete experience stage; classroom discussion represents reflective observation; the theoretical integration of *smong* with *hifdz al-nafs* represents abstract conceptualization; and evacuation drills represent active experimentation. This systematic alignment with learning theory addresses a common weakness of disaster preparedness curricula, which often focus on knowledge transmission without ensuring behavioural transfer (Mileti & Sorensen, 1990; Wisner et al., 2004)

The comparison above highlights that while the *pesantren* cadre model prioritizes organizational regeneration, the SBDMC uniquely centres on physical survival and life preservation. To visualize how these novelties, the four-stage internalization, the five-component curriculum, and the operationalization of *hifdz al-nafs*, converge into a coherent framework, Figure 2 presents a conceptual infographic of the SBDMC novelty.

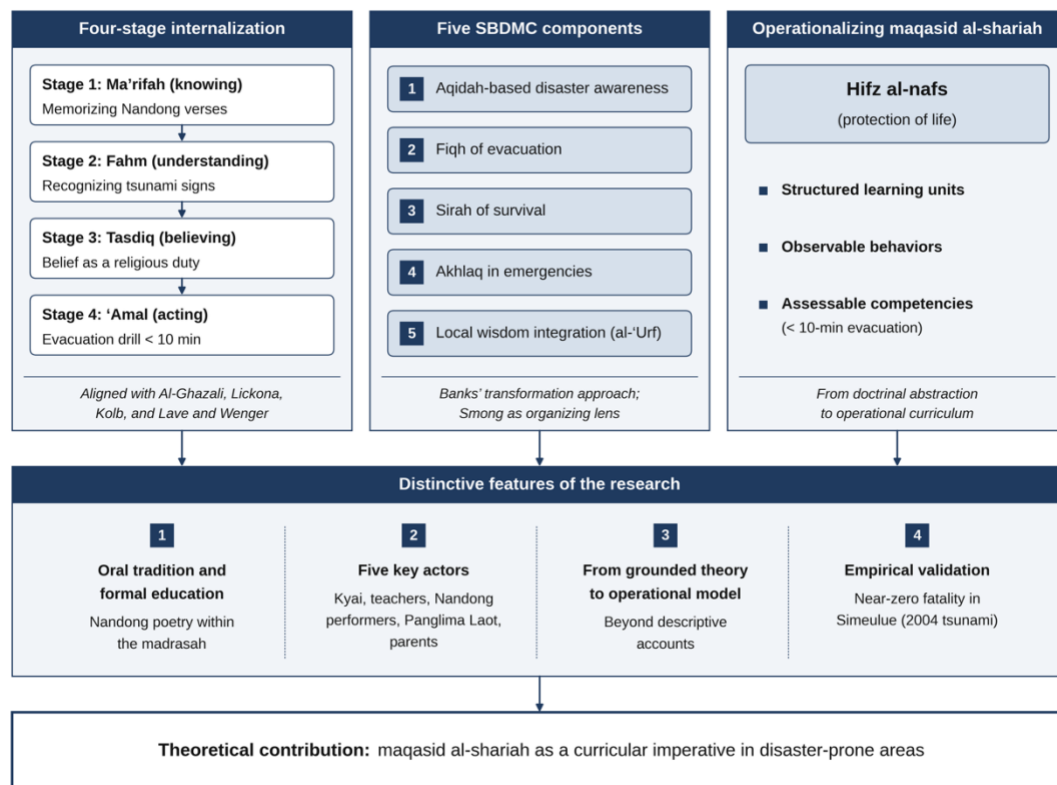


Figure 2. Novelty of the *Smong*-Based Disaster Mitigation Curriculum (SBDMC) Model

As illustrated in Figure 2, the integration of these three novelty pillars transforms *smong* from a local oral tradition into a structured, assessable curriculum system. Building upon this integrated framework, the relevance of (Banks, 2004) Transformation Approach to multicultural curriculum becomes particularly significant.

Comparing the SBDMC with the *pesantren* cadre model (Bin Muhammad, 2020; Prasetyo et al., 2025) reveals both convergences and divergences. Both studies used grounded theory methodology and identify four-stage internalization sequences. Both also emphasize the indispensable role of *kyai* (institutional leader) as legitimating authority; and resist individual-centric approaches in favour of community-systemic frameworks. However, where Rahman et al., (2021) focus on organizational sustainability and leadership regeneration, the SBDMC centres on physical survival and life preservation outcomes that, as Lave, (1988) and Wisner et al. (2004) observe, become urgent under conditions of natural hazard that have no temporal buffer for gradual cultural change.

The relevance of (Banks, 2004; Juliana et al., 2025; Koentjaraningrat, 1990) Transformation Approach to multicultural curriculum is also significant. The SBDMC does not merely add *smong* as an additive supplement to an existing

curriculum (the additive approach) but restructures the entire curriculum framework around *smong* values, using them as the organizing lens through which Islamic concepts are encountered. This approach aligns with what (Freire, 1970) calls a dialogic epistemology the curriculum becomes a conversation between traditional community knowledge and formal Islamic learning, rather than a one-way transmission of canonical content. The local wisdom integration component (Component 5, Table 3) operationalizes *al-'urf* (custom as a source of Islamic legal consideration) to legitimate this epistemological integration.

The research also contributes to the growing body of work on local wisdom in Indonesian Islamic educational management recently. Santoso et al., (2025) demonstrated that Papuan folklore functions as preventive education; the present study extends this logic to the domain of disaster survival, showing that oral traditions can serve not only as moral educators but as operationalizable curriculum systems. Idris et al., (2025) showed how local wisdom can optimize Islamic institutional management in *madrasah*, while Syahputra et al., (2019) illustrated how indigenous Gayo leadership models carry structural implications for organizational identity. Collectively, these studies point toward a new paradigm of Islamic educational management: one that draws on local ontological resources rather than importing generic management frameworks.

A critical reflection on limitations is warranted. First, although the proposed curriculum targets *madrasah* students, no students or parents were included in the informant panel. Claims regarding learner internalization are therefore drawn from teachers', traditional leaders', and survivors' perspectives rather than from students' or parents' own voices, and this gap should be addressed through direct student and parent engagement in future validation studies. Second, the study is based on qualitative data from a single regency; quantitative validation of the curriculum model's impact on actual evacuation times and student survival knowledge remains a task for future longitudinal research. Third, the transferability of the SBDMC to other contexts such as West Sumatra, Bengkulu, or internationally comparable oral-tradition tsunami-risk communities such as in Japan (Sanriku region) or Chile (Mapuche oral culture) is theoretically plausible given the model's design principles, but would require contextual adaptation and empirical validation. Equally significant, none of the interviewed teachers reported prior training in disaster mitigation pedagogy, confirming the need for the proposed master-teacher training program.

CONCLUSION

This study has established that the internalization of *smong* (the indigenous tsunami oral-wisdom tradition of the Simeulue community of Aceh, Indonesia) into a formal Islamic education curriculum is theoretically sound and practically relevant, and is empirically informed by the qualitative evidence reported here, though impact validation through subsequent implementation remains outstanding (see Limitations). The four-stage internalization model (*ma'rifah, fahm, tasdiq, amal*) provides a pedagogically robust pathway from memorization to life-saving action, aligning Islamic epistemological tradition with contemporary learning science. The five-component SBDMC offers a replicable curriculum architecture that bridges *aqidah, fiqh, sirah, akhlaq*, and local wisdom across three levels of Islamic schooling. These concluding claims map onto the study's three research questions as follows: the finding that *smong* is actively practiced as a religious duty rather than passive folklore (RQ1) is supported by the community-understanding data reported above; the four-stage *ma'rifah-fahm-tasdiq-amal* model (RQ2) is grounded in the coded interview and FGD data described in the Method and Results sections; and the five-component SBDMC (RQ3) is presented as a design recommendation built on the RQ1-RQ2 findings, not itself an empirically validated outcome.

The study's core theoretical contribution is the demonstration that *maqasid al-shariah*, specifically *hifdz al-nafs* could and should be operationalized in disaster-prone educational contexts as a curricular imperative rather than a doctrinal abstraction. *Smong*, validated by the 2004 survival record of Simeulue's near-zero fatality rate, proves that indigenous knowledge systems can outperform modern technology in disaster response when they are deeply internalized across a community. Islamic education, as the primary moral formation system for millions of Indonesian students, has both the obligation and the methodological resources to serve as the institutional vehicle for this internalization. The implication for educational policy is clear: Islamic educational institutions in disaster-prone coastal areas across Indonesia, and by extension in comparable Muslim-majority seismic communities globally, should integrate disaster mitigation content grounded in local cultural epistemologies into their core curricula. The SBDMC provides a ready-made template for this integration. Future research should conduct longitudinal impact studies measuring actual reductions in evacuation time and student knowledge retention over multi-year SBDMC implementation, as well as explore the model's adaptation for non-Islamic or religiously mixed educational contexts.

About the Authors

Muhammad Iqbal (corresponding author) is a lecturer in Islamic Education and Curriculum Studies at Universitas Malikussaleh, Aceh, with research interests in integrating local wisdom into Islamic pedagogy and disaster risk reduction in educational settings. Ismawirna serves at Universitas Serambi Mekkah, specializing in character education and the intersection of Acehese cultural values with Islamic teaching, particularly in community-based resilience strategies. Wahdaniah, from Politeknik Lhokseumawe, focuses on community resilience, indigenous knowledge systems, and the practical application of local disaster mitigation practices such as the smong tradition. Ririn Rahayu, also based at Universitas Malikussaleh, specializes in curriculum evaluation and development, with a methodological emphasis on grounded theory to analyze the effectiveness of contextual educational models. Shiti Maghfira, affiliated with Tohoku University, Japan, contributes expertise in disaster science and cross-cultural comparative studies, bringing an international perspective on the integration of indigenous knowledge with modern disaster management frameworks.

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