Kuttab : Jurnal Ilmu Pendidikan Islam
p-ISSN (2549-7987), e-ISSN (2550-0341)
Vol. 10, No. 2, 2026, pp. 408-422

Developing a Cyber-Akhlak-Based Family Education Model Integrated with ISP Protection in Non-Formal Islamic Religious Education at MTs Darul Rohmah Laren

Muhammad Masyhur[1*], Khotimah Suryani[2], Syihabuddin Qulyubi[3]
Universitas Darul Ulum Lamongan
masyhur.hm@gmail.com, khotimah@unisda.ac.id, syihabuddinq@gmail.com
*Corresponding author

DOI: 10.30736/ktb.v10i2.3112

Article History
Received : 06-08-2026
Revised : 20-10-2026
Accepted : 31-10-2026

Keywords: Cyber-Akhlak, Islamic Religious Education, Internet Service Provider Protection, Sadd adz-Dzari'ah

***Kata kunci**: Akhlak Siber, Pendidikan Agama Islam, Perlindungan Tingkat Penyedia Layanan Internet, Sadd adz-Dzari'ah*

Abstract: This study aims to design a Cyber-Akhlak-based family education model that integrates Internet Service Provider (ISP) protection features into a non-formal Islamic Religious Education (PAI) curriculum, to develop and validate instruments for measuring it, and to explain stakeholders' experiences of its implementation at MTs Darul Rohmah Laren. A sequential mixed-methods design was employed: a quantitative phase validated a questionnaire on parents' perceived implementation of the model and a questionnaire on parent-reported students' digital character among 45 parents (saturated sampling), followed by a qualitative phase of in-depth interviews with PAI teachers, parents, and ISP technicians. The model was realized as the three-unit Siber-Sakinah Module; all items of both instruments were valid (r = 0.647–0.876) and highly reliable (α = 0.964 and 0.950). Qualitative findings show that parents and teachers perceive network-level protection as part of the home internet environment that opens space for value-based mentoring; students' perspectives and the model's effect have not yet been examined. The study operationalizes *Sadd adz-Dzari'ah* as a normative framework for technology-supported prevention combined with the internalization of muraqabah (consciousness of God's watchfulness).

Abstrak: *Penelitian ini bertujuan merancang model pendidikan keluarga berbasis Cyber-Akhlak yang mengintegrasikan fitur perlindungan Internet Service Provider (ISP) ke dalam kurikulum Pendidikan Agama Islam (PAI) nonformal, mengembangkan dan memvalidasi instrumen pengukurnya, serta menjelaskan pengalaman para pelaku dalam menerapkannya di MTs Darul Rohmah Laren. Penelitian menggunakan metode campuran sekuensial: tahap kuantitatif memvalidasi angket implementasi model menurut persepsi orang tua dan angket karakter digital siswa menurut penilaian orang tua pada 45 orang tua (sampel jenuh), kemudian tahap kualitatif menggali pengalaman guru PAI, orang tua, dan teknisi ISP melalui wawancara mendalam. Hasilnya, model terwujud dalam Modul Siber-Sakinah yang terdiri atas tiga unit; seluruh butir kedua instrumen valid (r = 0,647–0,876) dan sangat reliabel (α = 0,964 dan 0,950). Temuan kualitatif menunjukkan*

Copyright © 2026 by Muhammad Masyhur, Khotimah Suryani, Syihabuddin Qulyubi. This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

bahwa orang tua dan guru memandang perlindungan tingkat jaringan sebagai bagian dari lingkungan internet rumah yang memberi ruang bagi pendampingan berbasis nilai; perspektif siswa dan pengaruh model belum diteliti. Penelitian ini mengoperasionalkan Sadd adz-Dzari'ah sebagai kerangka normatif pencegahan berbasis teknologi yang dipadukan dengan internalisasi muraqabah.

INTRODUCTION

Internet use has become part of the daily life of Indonesian adolescents. The 2024 national survey of the Indonesian Internet Service Providers Association reported an internet penetration rate of 79.5%, with Generation Z (aged 12–27) reaching 87.02% (Asosiasi Penyelenggara Jasa Internet Indonesia [APJII], 2024). Cross-national evidence shows that this access brings opportunities as well as risks, including exposure to sexual or violent content, cyberbullying, and contact with strangers (Smahel et al., 2020). In Indonesia, the *Disrupting Harm* study documented that children aged 12–17 are exposed to online sexual exploitation and abuse, often through the same platforms they use daily (ECPAT, INTERPOL, & UNICEF, 2022). From the perspective of Islamic education these risks are not merely technical problems, because adolescence is the period in which moral dispositions (*akhlak*) are formed through habituation and education (Miskawayh, 1968).

A large share of adolescents' online activity takes place at home and outside school hours (Smahel et al., 2020), a space that formal Islamic Religious Education (PAI) in schools cannot directly reach. Indonesian education law recognizes formal, non-formal, and informal education as complementary pathways (Republik Indonesia, 2003), and religious education is likewise regulated as something delivered through school, community, and family channels (Pemerintah Republik Indonesia, 2007). The family, however, faces what is often called the digital parenting gap: the effectiveness of parental mediation depends strongly on parents' own digital skills (Livingstone et al., 2017). Studies of rural Muslim families in Indonesia show that parents struggle to sustain Islamic routines amid children's gadget use, that their own device habits can undermine their role as models (Ikmal et al., 2026), and that some parents delegate part of religious education to digital media because of time constraints and doubts about their own religious literacy (Ruswan et al., 2026). The study by Ikmal et al. (2026) was conducted in Lamongan, the same regency as the present research site, which indicates that these challenges are also present in the local context. These conditions justify strengthening a family-based, non-formal PAI curriculum that equips parents to accompany their children's digital lives.

Studies on digital morality in Islamic education have developed in two directions. The first emphasizes the internalization of values: recent work frames *digital akhlak* as the extension of the classical *akidah–ibadah–akhlak* framework into digital life (Ikmal et al., 2026), positions *tabayyun*, *siddiq*, *amanah*, and *muraqabah* as internal information filters within PAI (Al-hasnah et al., 2026), and proposes *tazkiyah al-nafs* and *muraqabah* as sources of adolescents' self-regulation (Mirawati, 2026); normative guidance such as

the Indonesian Ulema Council's fatwa on social-media conduct belongs to this direction as well (Majelis Ulama Indonesia, 2017). The second direction is technological. Parental mediation research distinguishes active, restrictive, and technical mediation (Livingstone & Helsper, 2008; Clark, 2011). Device-based parental control applications are the most common form of technical mediation, yet adolescents tend to perceive them as invasive, they can undermine parent–child trust, and they offer limited support for teens' self-regulation (Wisniewski et al., 2017; Ghosh et al., 2018).

Network-level protection implemented through ISPs, such as DNS filtering and IP blocking, shifts part of the protective function from individual devices to the home infrastructure and therefore does not depend on software installed on each child's phone. This approach is not a superior substitute for device-based control: it can also be circumvented through virtual private networks (VPNs), encrypted DNS such as DNS over HTTPS (Hoffman & McManus, 2018), or mobile data outside the home network. The two forms of control are better understood as complementary layers, neither of which can form character on its own. In Indonesia, content filtering is also embedded in state regulation (Kementerian Komunikasi dan Informatika, 2014; Pemerintah Republik Indonesia, 2025). Indonesian studies of Islamic digital parenting have so far focused on parents' mediation strategies and value formation (Ikmal et al., 2026; Ruswan et al., 2026); how infrastructure-level protection can be deliberately connected to a non-formal PAI curriculum, so that technical prevention and value formation reinforce each other, remains underexplored.

This study frames that connection through two Islamic concepts. *Sadd adz-Dzari'ah*, a principle of Islamic legal theory, prescribes blocking the means (*dzari'ah*) that predominantly lead to harm (*mafsadah*) (Ibn Qayyim al-Jawziyyah, 2002; al-Syathibi, 1997; Kamali, 2003). It is used here as a normative-conceptual framework that justifies environmental prevention and is operationalized through DNS filtering, IP blocking, and access scheduling. Because prevention alone does not produce *akhlak*, the framework is paired with *muraqabah*, that is, the awareness that Allah is constantly watching (al-Ghazali, 2015), which functions as an internal filter when external filters fail. Self-determination theory provides a complementary lens for describing movement from externally regulated to internalized behavior (Ryan & Deci, 2000).

Accordingly, this study has three objectives: (a) to design a Cyber-Akhlak-based family education model integrated with ISP protection features, realized as a non-formal PAI curriculum; (b) to develop and validate instruments for measuring parents' perceived implementation of the model and students' digital character as rated by parents; and (c) to explain, through the experiences of parents, teachers, and ISP technicians, how network-level protection and value internalization operate in the family. Testing the model's effect on students' digital character is outside the scope of this study and is positioned as the next stage of research, for which the validated instruments are prepared. Theoretically, the study contributes to contextual Islamic education by showing how a principle of Islamic legal theory can be operationalized as technology-supported prevention without reducing *akhlak* to digital control; practically, it offers a collaborative framework for madrasahs, families, and ISPs.

METHOD

This study employed a sequential mixed-methods design within a development-oriented study (Creswell & Plano Clark, 2018). The quantitative strand was conducted first and served a measurement purpose: it validated the instruments for the two key constructs and described the respondents. The qualitative strand, which had priority, was conducted afterwards to explain how the model was experienced in families' everyday practices. The quantitative strand was not designed to test the model's effect; this design decision is reflected in the formulation of the objectives and conclusions. The study was conducted at MTs Darul Rohmah Laren, Lamongan, during the implementation of the Siber-Sakinah Module through Madrasah's regular parenting program.

Quantitative strand. The population consisted of all 45 parents/guardians of students who met three criteria: their child was enrolled at MTs Darul Rohmah Laren, their household used fixed-broadband Wi-Fi from the partner ISP with protection features activated, and they participated in the parenting program. Because the whole population was included, the study used saturated sampling. Parents were chosen as respondents because they were the implementers of the model at home and the adults who observed their children's internet use daily. All questionnaires were returned and analyzed.

Two variables were measured with closed questionnaires on a five-point Likert scale. Variable X is defined as **parents' perceived implementation of the Cyber-Akhlak-Based Family Education Model**, not the model as an objective entity, because the items capture parents' reports of how they apply the model's values and practices at home. Variable Y is defined as **students' digital character as rated by parents**: each parent rated the observable digital behavior of his or her own child. Students did not complete Instrument Y, so Y is a parent-report (observer-report) measure and should be read as parents' assessment of students' digital character, not as a direct measurement of students' behavior. The dimensions of Y combine Islamic digital ethics with the notion of digital citizenship (Ribble, 2015). The operationalization of both variables is presented below.

Table 1.
Operationalization of Research Variables

Variable (rater)	Dimension	Indicators	Items
X. Parents' perceived implementation of the Cyber-Akhlak-Based Family Education Model (parent self-report)	Value internalization (Theo-Digital Literacy)	Explaining technology as *amanah*; conveying *muraqabah*; discussing digital threats with the child	X1.1–X1.5
	Digital media fiqh practice	Practising and modelling *tabayyun*, avoiding digital *ghibah*, *ghadhdh al-bashar*; activating SafeSearch and ISP DNS filtering	X1.6–X1.10
	Digital time management	Agreeing on screen-time rules; using router/ISP time scheduling; avoiding *israf*	X1.11–X1.15

Y. Students' digital character (parent-report of own child)	Honesty and *tabayyun*	Verifying information; not spreading hoaxes	Y1.1–Y1.3
	Guarding the gaze and content selection	Avoiding inappropriate content; choosing beneficial content	Y1.4–Y1.6
	Digital *adab* in communication	Polite speech; no *ghibah* or cyberbullying	Y1.7–Y1.9
	Time discipline and moderation	Keeping agreed limits; prayer and study not neglected	Y1.10–Y1.12
	Digital responsibility	Not seeking bypasses; being open with parents about online problems	Y1.13–Y1.15

Instrument validity was examined with Pearson product-moment correlations between each item score and the total score (r-table = 0.294; df = 43; $\alpha = 0.05$), and reliability with Cronbach's alpha (≥ 0.70) (Nunnally & Bernstein, 1994), using IBM SPSS Statistics.

Network-level protection. The partner ISP implemented three protection mechanisms: DNS filtering, which refuses to resolve domain names listed in risky categories (including domains on the government's negative-content list); IP blocking for addresses of known pornography and online-gambling services; and time scheduling on household routers to restrict night-time access. This study did not analyze quantitative network logs. ISP protection is therefore examined as part of the implementation context and through informants' accounts, not as a measured outcome, and no claim is made about its effect on students' exposure to harmful content.

Qualitative strand. In-depth interviews were conducted with ten informants: three PAI teachers, five parent representatives drawn from the 45 questionnaire respondents, and two ISP technicians who collaborated with the madrasah. Teachers and parents provided accounts of the model's implementation, and the technicians explained how the protection features operated. Students were not interviewed, so the qualitative findings reflect adults' perspectives. Data was analyzed through data condensation, data display, and conclusion drawing (Miles et al., 2014), with source triangulation across informant groups.

Integration. The two strands were connected through sampling, since parent informants were drawn from the questionnaire respondents, and merged at the interpretation stage in a joint display that juxtaposes the quantitative and qualitative findings to generate meta-inferences (Fetters et al., 2013) (Table 9). Participation was voluntary, all participants gave informed consent, and identities were anonymized.

RESULTS AND DISCUSSION

Result

Structure of the Non-Formal PAI Cyber-Akhlak Curriculum (Siber-Sakinah Module)

The development of the Cyber-Akhlak-based non-formal PAI curriculum resulted in the *Siber-Sakinah Module*, implemented through the regular parenting program at MTs

Darul Rohmah Laren. The module connects religious texts (*dalil naqli*) with practices for managing the family's digital environment. It consists of three units: Theo-Digital Literacy, Digital Media Jurisprudence, and Digital Time Management.

Table 2.
Structure of the Non-Formal PAI Cyber-Akhlak Curriculum

Learning Unit	Focus on Theological Material	Practical Implementation
Unit 1: Theo-Digital Literacy	The essence of technology as part of creation; muraqabah (consciousness of God's watchfulness) in the digital space	Introducing types of cyber threats and the idea of a family digital fortress
Unit 2: Digital Media Jurisprudence	Cyber ethics: *tabayyun* (verifying information), prohibition of digital backbiting (ghibah), and guarding one's gaze (ghadhdh al-bashar)	Activating *SafeSearch* on search engines and requesting ISP-level DNS filtering of pornographic and gambling domains
Unit 3: Digital Time Management	The value of time in Islam (QS. Al-'Asr) and the dangers of *israf* (excess)	Configuring time scheduling on the home router to limit night-time internet access

Table 2 shows that the practical components of the module are largely preventive (filtering, blocking, scheduling), whereas its theological components (*muraqabah*, *tabayyun*, *ghadhdh al-bashar*, avoidance of *israf*) are formative and aim to equip students to make ethical choices when access is available. Internalization was designed to reach students through parents as mediators: parents learned the material in the parenting sessions and were expected to discuss it with their children at home. The extent of these home discussions was not measured.

Quantitative Results: Respondents and Instrument Validation

Respondent Characteristics

All 45 questionnaires distributed to parents/guardians were returned and analyzed. Respondent characteristics are reported by gender, highest level of education, and occupation (Tables 3–5) to describe the profile of participating families. These characteristics are descriptive only; no inferential analysis was conducted on them.

Table 3.
Distribution of Respondents by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	42.2	42.2	42.2
	Female	26	57.8	57.8	100.0
	Total	45	100.0	100.0	

Of the 45 respondents, 19 (42.2%) were male and 26 (57.8%) were female, so the respondents were predominantly female.

Table 4.
Distribution of Respondents by Highest Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Junior High School	8	17.8	17.8	17.8
	Senior High School	26	57.8	57.8	75.6
	Higher Education	11	24.4	24.4	100.0
	Total	45	100.0	100.0	

Eight respondents (17.8%) had completed junior high school, 26 (57.8%) senior high school, and 11 (24.4%) higher education (Table 4). Senior high school was therefore the most common level of education among respondents.

Table 5.
Distribution of Respondents by Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farmers/Fishermen	4	8.9	8.9	8.9
	Laborers	8	17.8	17.8	26.7
	Trader/Entrepreneur	6	13.3	13.3	40.0
	Civil Servants/Private Sector	27	60.0	60.0	100.0
	Total	45	100.0	100.0	

Most respondents worked as civil servants or private-sector employees (27; 60.0%), followed by laborers (8; 17.8%), traders/entrepreneurs (6; 13.3%), and farmers/fishermen (4; 8.9%) (Table 5).

Instrument Validity and Reliability

Table 6.
Validity Test Results for Variable X (Perceived Implementation of the Cyber-Akhlak Model)

Item	r-count	Sig.	r-table	Remark
X1.1	0.842	0.000	0.294	Valid
X1.2	0.811	0.000	0.294	Valid
X1.3	0.773	0.000	0.294	Valid
X1.4	0.767	0.000	0.294	Valid
X1.5	0.756	0.000	0.294	Valid
X1.6	0.785	0.000	0.294	Valid
X1.7	0.777	0.000	0.294	Valid

X1.8	0.823	0.000	0.294	Valid
X1.9	0.871	0.000	0.294	Valid
X1.10	0.876	0.000	0.294	Valid
X1.11	0.873	0.000	0.294	Valid
X1.12	0.762	0.000	0.294	Valid
X1.13	0.778	0.000	0.294	Valid
X1.14	0.874	0.000	0.294	Valid
X1.15	0.854	0.000	0.294	Valid

All 15 items of variable X had r-count values between 0.756 and 0.876, exceeding the r-table value of 0.294 with significance values of 0.000 (< 0.05) (Table 6). All items were therefore declared valid in the sense of correlating strongly with the total score of the construct.

Table 7.
Validity Test Results for Variable Y (Students' Digital Character, Parent-Reported)

Item	**r-count**	**Sig.**	**r-table**	**Remark**
Y1.1	0.821	0.000	0.294	Valid
Y1.2	0.799	0.000	0.294	Valid
Y1.3	0.809	0.000	0.294	Valid
Y1.4	0.769	0.000	0.294	Valid
Y1.5	0.716	0.000	0.294	Valid
Y1.6	0.647	0.000	0.294	Valid
Y1.7	0.715	0.000	0.294	Valid
Y1.8	0.704	0.000	0.294	Valid
Y1.9	0.772	0.000	0.294	Valid
Y1.10	0.785	0.000	0.294	Valid
Y1.11	0.806	0.000	0.294	Valid
Y1.12	0.792	0.000	0.294	Valid
Y1.13	0.739	0.000	0.294	Valid
Y1.14	0.806	0.000	0.294	Valid
Y1.15	0.806	0.000	0.294	Valid

All 15 items of variable Y had r-count values between 0.647 and 0.821 (Table 7), all above the r-table value of 0.294 with significance values of 0.000, so all items were declared valid.

Table 8.
Reliability Test Results

Variables	Number of Items	Cronbach's Alpha	Criteria	Remark
Perceived implementation of the Cyber-Akhlak model (X)	15	0.964	≥ 0.70	Very Reliable
Students' digital character, parent-reported (Y)	15	0.950	≥ 0.70	Very Reliable

Cronbach's alpha values were 0.964 for variable X and 0.950 for variable Y (Table 8), both well above the 0.70 threshold. Both instruments were therefore categorized as very reliable.

Qualitative Findings

The qualitative strand produced two themes that describe how the model operated in families.

Theme 1: Network-level protection perceived as part of the home environment. Parent and teacher informants described ISP-level filtering as a condition of the home internet rather than as personal surveillance by parents. The ISP technicians explained that the mechanisms operate at the network level regardless of the device used at home, which is consistent with this perception. All informants for this theme were adults (parents, teachers, and ISP technicians).

Theme 2: A shift in the parental role from monitoring devices to dialogue. Parent and teacher informants described a change in supervision patterns after the module was implemented: because filtering operated at the network level, parents spent less effort checking their children's devices and could give more attention to conversations about values such as *tabayyun* and *muraqabah*.

Integration of Quantitative and Qualitative Findings

Table 9 merges the two strands. For each aspect of the model, it sets the quantitative result beside the corresponding qualitative theme and states the meta-inference drawn from both. The quantitative strand shows that the model's constructs can be measured validly and reliably, while the qualitative strand describes how parents and teachers experienced the model; network-level protection was examined only qualitatively.

Table 9.
Joint Display of Quantitative and Qualitative Findings

Aspect	Quantitative strand	Qualitative strand	Meta-inference
Implementation of the model (X)	All 15 items valid (r = 0.756–0.876); α = 0.964	Parents and teachers describe a shift from checking devices to discussing values (Theme 2)	The model's components form a coherent, measurable construct that parents

			recognize in their practice
Students' digital character (Y)	All 15 items valid (r = 0.647–0.821); α = 0.950; measured through parent report	Students' own perspective was not collected	Parent report captures observable behaviour; students internalized self-regulation could not be examined
Network-level protection	Not measured quantitatively	Parents and teachers perceive filtering as part of the home environment; technicians describe network-level operation (Theme 1)	Protection functions as an environmental condition consistent with *sadd adz-dzari'ah*; its effect requires log-based testing

DISCUSSION

This section interprets the results considering parental mediation theory, the concept of *muraqabah*, the principle of *sadd adz-dzari'ah*, and previous studies. Overall, the results show that a Cyber-Akhlak-based family education model integrated with ISP protection can be designed as a coherent non-formal PAI curriculum, that its key constructs can be measured validly and reliably, and that families experience it as changing how supervision is carried out. Taken together, the joint display (Table 9) indicates that the model is coherent and implementable, but it does not yet show that the model changes students' digital character.

Combining Restrictive and Active Mediation

In terms of parental mediation theory, the model combines technical and restrictive mediation (filtering, blocking, scheduling) with active mediation (discussing values) (Livingstone & Helsper, 2008; Clark, 2011). This combination is consistent with Livingstone et al. (2017), who found that enabling forms of mediation that support children's skills, rather than restriction alone, are associated with fewer risks without eliminating opportunities. It also parallels the mediation strategies documented among Muslim families in Lamongan, where parents combined temporal structuring of the day with the facilitation of Islamic content (Ikmal et al., 2026). The present study, however, did not test whether the model is associated with better digital character, and this question remains open.

Themes 1 and 2 points to the mechanism through which technology supported family education. Because filtering was perceived as a condition of the home internet rather than as personal surveillance (Theme 1), restriction was relocated from parents' checking of devices to the household infrastructure; this reduced the monitoring burden on parents, lowered the potential for conflict, and left more room for dialogue about values (Theme 2). This interpretation aligns with studies showing that adolescents perceive app-based monitoring as invasive and harmful to trust (Wisniewski et al., 2017; Ghosh et al., 2018). It also differs from the pattern of digital parental delegation reported

by Ruswan et al. (2026), in which parents hand part of religious education over to digital media; in the present model, technology takes over part of the protective function so that parents can focus on value formation. These themes, however, reflect informants' perceptions: the frequency and quality of parent–child dialogue were not measured, so whether the reduced burden improved parent–child interaction remains unknown.

Muraqabah and the Balance between Preventive and Formative Components

The structure of the Siber-Sakinah Module (Table 2) shows that the goal of Cyber-Akhlak in this design is not only to keep students away from certain content but also to build the internal disposition needed when filters fail. The preventive components cover what filtering can reach, while the formative components are meant to cover what it cannot.

The internalization dimension of the model rests on *muraqabah*. In Islamic spirituality, muraqabah denotes the awareness that Allah constantly watches over one's inner and outer states; al-Ghazali treats it, together with self-examination (*muhasabah*), as a station of the heart that governs conduct even when no human observer is present. In the digital context, muraqabah functions as an internal filter that remains active when external filters are bypassed, a role also highlighted in recent studies of digital akhlak and adolescent self-regulation (Al-hasnah et al., 2026; Mirawati, 2026). In this model, muraqabah was introduced to parents in Unit 1 and was expected to reach students through family conversations. Because students were not interviewed, this study offers no direct evidence that such internalization took place, and the formative components of the module need to be strengthened with reflective activities that ask students to reason about their own choices. Likewise, how students themselves experience filtering, and whether it affects their self-regulation, could not be examined.

***Sadd adz-Dzari'ah* and Network-Level Protection**

Applying *Sadd adz-Dzari'ah* to network protection requires conceptual care. Classical jurists evaluated a *dzari'ah* according to the probability that it leads to harm: means that lead to harm certainly or predominantly are to be blocked, whereas means that rarely do so remain permissible (al-Syathibi, 1997; Ibn Qayyim al-Jawziyyah, 2002). Unrestricted access to domains already classified as pornography or gambling falls into the category of predominant probability, so blocking them is consistent with the principle. Yet DNS filtering does not truly seal the path: it raises the cost of access and can be circumvented through VPNs, encrypted DNS, or mobile data (Hoffman & McManus, 2018). Technically, then, it hinders rather than closes access, and it corresponds to *Sadd adz-Dzari'ah* as a reduction of the likelihood of harm rather than its elimination. The same legal theory also recognizes *fath adz-dzari'ah*, the opening of means that lead to benefit (Kamali, 2003), which implies that over-blocking useful educational content would contradict the principle's own aim. This is why, in this study, *Sadd adz-Dzari'ah* is treated as a normative-conceptual framework operationalized through technology, not as a claim that filtering itself constitutes religious compliance.

Compared with other approaches in Indonesian cyber-fiqh, the model occupies an intermediate level. The MUI fatwa on social-media conduct places the burden of ethics on individual users through norms such as *tabayyun* and the prohibition of *ghibah* and hoaxes (Majelis Ulama Indonesia, 2017), whereas state content filtering operates at the national level (Kementerian Komunikasi dan Informatika, 2014; Pemerintah Republik Indonesia, 2025). The Cyber-Akhlak model connects the two at the household level by combining infrastructure-based prevention with the moral formation of individual users.

Instrument Quality and Respondent Profile

The validity and reliability results (Tables 6–8) establish that the instruments are adequate for measurement and ready to be used in a subsequent study testing the model's effect; they are not themselves evidence of that effect. All items correlated strongly with the total score of their construct, yet the very high alpha values (0.964 and 0.950) may also indicate item redundancy, which should be examined in future refinement of the instruments (Nunnally & Bernstein, 1994).

The respondent profile (Tables 3–5) should also be read with care. The predominance of female respondents does not indicate that mothers are more involved than fathers in guiding children's technology use, since it may also reflect who was available to attend the program or complete the questionnaire. Formal education level is not equivalent to digital literacy or competence in digital parenting, and this study did not test the relationship between education level and variable. Although the sample covers families from varied occupational backgrounds, the predominance of formal-sector workers should be considered when generalizing the findings.

Contribution to Previous Research

This study extends previous research in specific ways. Ikmal et al. (2026) theorized Islamic digital parenting and digital *akhlak* from a qualitative case study but did not involve infrastructure-level protection; Ruswan et al. (2026) described how parents use digital media as partners in religious education; Al-hasnah et al. (2026) and Mirawati (2026) developed conceptual frameworks for digital *akhlak* and muraqabah-based self-regulation; and Wisniewski et al. (2017) and Ghosh et al. (2018) examined the limits of device-based parental control. The present study combines these strands in one non-formal PAI program, connects it to ISP-level protection, and provides validated instruments for its future evaluation.

Limitations

Several limitations must be acknowledged. First, the study did not test the effect of the model on students' digital character; the quantitative strand served only to validate the instruments. Second, it involved a single madrasah and 45 respondents, which limits generalization. Third, both instruments were completed by parents, so Y reflects parents' perceptions of their children's digital character and is susceptible to single-source bias and social desirability (Podsakoff et al., 2003). Fourth, instrument validity was assessed only through item–total correlations, without factor analysis. Fifth, the effectiveness of

ISP protection was not measured with network data. Sixth, students were not interviewed, and the qualitative sample was small.

CONCLUSION

This study sets out to design, measure, and explain a Cyber-Akhlak-based family education model integrated with ISP protection features. Regarding the first objective, the model was realized as the Siber-Sakinah Module, which combines formative theological content (muraqabah, tabayyun, ghadhdh al-bashar, avoidance of israf) with preventive practices (DNS filtering, IP blocking, and time scheduling). Regarding the second objective, the instruments measuring parents' perceived implementation of the model and parent-reported students' digital character were valid ($r = 0.647–0.876$) and highly reliable ($\alpha = 0.964$ and 0.950), making them ready for use in an effect study. Regarding the third objective, the qualitative findings show that parents and teachers perceived network-level protection as part of the home environment that allowed parents to shift from device monitoring toward value-based dialogue; students' own perspectives were not examined.

The findings indicate that technical protection and moral education should be designed together. Value education without environmental management leaves adolescents continuously exposed to stimuli that tests their restraint, while technical control without value formation can be circumvented and tends to provoke resistance. Integrating the two allows each to cover the other's weakness: filtering reduces the frequency of temptation, and internalized values such as muraqabah guide behavior where filtering does not reach. Within this arrangement, *Sadd adz-Dzari'ah* provides a normative justification for prevention, provided that it is applied proportionally and accompanied by fath adz-dzari'ah for beneficial content.

The main limitations of this study are the absence of an effect test, its single-site setting, small sample, reliance on parent reports for students' digital character, lack of network data, and the absence of student interviews. Future research should use validated instruments in a quasi-experimental design with a control group and pre- and post-test measurements, including student interviews, student self-reports, and network-log indicators, and involve several madrasahs. Practically, madrasahs, families, and ISPs can adopt the model as a collaborative strategy while strengthening its reflective components so that students are prepared to make ethical decisions when access is available.

REFERENCES

al-Ghazali, A. H. M. (2015). *Al-Ghazali on vigilance and self-examination: Kitab al-muraqaba wa'l-muhasaba, Book XXXVIII of the Revival of the religious sciences* (A. F. Shaker, Trans.). Islamic Texts Society.

Al-hasnah, H. S., Hodijah, I., & Maulana, H. (2026). Digital akhlak: Menanamkan etika bermedia sosial dalam frame Pendidikan Agama Islam. *Hikmah: Jurnal Studi Pendidikan Agama Islam, 3*(2), 13–22. https://doi.org/10.61132/hikmah.v3i2.2170

al-Syathibi, I. M. (1997). *Al-Muwafaqat* (M. H. Al Salman, Ed.). Dar Ibn 'Affan.

Asosiasi Penyelenggara Jasa Internet Indonesia. (2024). *Survei penetrasi internet Indonesia 2024*. APJII.

Clark, L. S. (2011). Parental mediation theory for the digital age. *Communication Theory, 21*(4), 323–343. https://doi.org/10.1111/j.1468-2885.2011.01391.x

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

ECPAT, INTERPOL, & UNICEF. (2022). *Disrupting harm in Indonesia: Evidence on online child sexual exploitation and abuse*. Global Partnership to End Violence against Children.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs: Principles and practices. *Health Services Research, 48*(6pt2), 2134–2156. https://doi.org/10.1111/1475-6773.12117

Ghosh, A. K., Badillo-Urquiola, K., Guha, S., LaViola, J. J., Jr., & Wisniewski, P. J. (2018). Safety vs. surveillance: What children have to say about mobile apps for parental control. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (Paper 124, pp. 1–14). ACM. https://doi.org/10.1145/3173574.3173698

Hoffman, P., & McManus, P. (2018). *DNS queries over HTTPS (DoH)* (RFC 8484). Internet Engineering Task Force. https://doi.org/10.17487/RFC8484

Ibn Qayyim al-Jawziyyah. (2002). *I'lam al-muwaqqi'in 'an Rabb al-'alamin* (M. H. Al Salman, Ed.). Dar Ibn al-Jawzi.

Ikmal, H., Fahruddin, A. H., & Sholihah. (2026). Digital literacy and religious identity: Parental mediation of technology use in Islamic education for Generation Alpha in Indonesia. *TA'LIM: Jurnal Studi Pendidikan Islam, 9*(2), 241–266.

Kamali, M. H. (2003). *Principles of Islamic jurisprudence* (3rd ed.). Islamic Texts Society.

Kementerian Komunikasi dan Informatika. (2014). *Peraturan Menteri Komunikasi dan Informatika Nomor 19 Tahun 2014 tentang Penanganan Situs Internet Bermuatan Negatif*.

Livingstone, S., & Helsper, E. J. (2008). Parental mediation of children's internet use. *Journal of Broadcasting & Electronic Media, 52*(4), 581–599. https://doi.org/10.1080/08838150802437396

Livingstone, S., Ólafsson, K., Helsper, E. J., Lupiáñez-Villanueva, F., Veltri, G. A., & Folkvord, F. (2017). Maximizing opportunities and minimizing risks for children online: The role of digital skills in emerging strategies of parental mediation. *Journal of Communication, 67*(1), 82–105. https://doi.org/10.1111/jcom.12277

Majelis Ulama Indonesia. (2017). *Fatwa Majelis Ulama Indonesia Nomor 24 Tahun 2017 tentang Hukum dan Pedoman Bermuamalah melalui Media Sosial*.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Mirawati. (2026). Islamic educational strategies for preventing social media addiction among adolescents. *Journal of Islamic Educational Research, 12*(1), 57–68. https://doi.org/10.22452/jier.vol12no1.5

Miskawayh, A. A. (1968). *The refinement of character* (C. K. Zurayk, Trans.). American University of Beirut.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Pemerintah Republik Indonesia. (2007). *Peraturan Pemerintah Nomor 55 Tahun 2007 tentang Pendidikan Agama dan Pendidikan Keagamaan*.

Pemerintah Republik Indonesia. (2025). *Peraturan Pemerintah Nomor 17 Tahun 2025 tentang Tata Kelola Penyelenggaraan Sistem Elektronik dalam Pelindungan Anak*.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Republik Indonesia. (2003). *Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional*.

Ribble, M. (2015). *Digital citizenship in schools: Nine elements all students should know* (3rd ed.). International Society for Technology in Education.

Ruswan, R., Raharjo, R., & Ismail, I. (2026). Digital parental delegation in Islamic education for children: Millennial mothers' practices in rural Indonesia in utilizing electronic media. *Edureligia: Jurnal Pendidikan Agama Islam, 10*(1), 143–158. https://doi.org/10.33650/edureligia.v10i1.14789

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). *EU Kids Online 2020: Survey results from 19 countries*. EU Kids Online. https://doi.org/10.21953/lse.47fdeqj01ofo

Wisniewski, P., Ghosh, A. K., Xu, H., Rosson, M. B., & Carroll, J. M. (2017). Parental control vs. teen self-regulation: Is there a middle ground for mobile online safety? In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing* (pp. 51–69). ACM. https://doi.org/10.1145/2998181.2998352