

Philosophy of Islamic Education for Development Character Education Digital Era within Primary Education in Pangandaran Regency

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Abstract

The rapid development of digital technology has fundamentally transformed the learning ecology of primary school aged children, thereby generating new challenges in the development of character education. This study aims to analyze how the philosophy of Islamic education, through the philosophical frameworks of ontology, epistemology, and axiology, can serve as both a conceptual and operational foundation for character education development in the digital era within primary education in Pangandaran Regency. The research employs a qualitative approach with an interpretive critical paradigm, utilizing philosophical inquiry alongside contextual empirical analysis that includes social data, educational policy documents, and relevant findings from previous studies. The findings indicate that digital character education should not be understood merely as the addition of media ethics content, but rather as an inherent component of the fundamental aims of Islamic education in cultivating morally grounded and dignified human beings. Ontologically, learners are positioned as moral subjects who must be guided to responsibly manage digital freedom. Epistemologically, character formation requires authentic experiences, habituation, and reflective processes within real digital contexts. Axiologically, the use of technology must be oriented toward public benefit (maṣlahah), the protection of human dignity, and the strengthening of learners' agency. These findings suggest the necessity of developing a model of character education based on digital ta'dīb that integrates Islamic values, digital literacy, school culture, teachers' exemplarity, and collaboration among families and communities. This model is considered relevant for addressing the challenges of character education in the digital era in a contextual and sustainable manner.



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1. INTRODUCTION

Digital transformation has become a significant socio-educational phenomenon in the contemporary era. In Indonesia, internet penetration has reached over 79% of the total population (Association of Indonesian Internet Service Providers, 2024). This widespread access to digital technology has not only transformed learning and interaction methods but also shaped a new social reality in which children's socio-cultural practices are influenced by the intensity of gadget and social media use. DataReportal's annual report (2025) shows significant growth in the number of internet and social media users in Indonesia. In the context of basic education, children aged 6–12 are at a stage of identity development and value internalization, making them highly vulnerable to the influence of the digital media environment. This empirical evidence underscores the need for character education to no

longer be confined to traditional school settings; it must also provide value guidance in the increasingly dominant digital space.

Serious problems arise when the expansion of digital access is not accompanied by readiness for ethical literacy and psychosocial protection for children. UNICEF baseline research (2023) shows that less than 40% of children have received information regarding online safety, while nearly half of study participants have experienced discomfort and exposure to age-inappropriate content and cyberbullying. This data demonstrates that children's digital experiences are not only related to technical competency but also relate to moral, psychological, and social aspects that require the attention of the education system as a whole. In the elementary school context, when moral control structures and reasoning are not yet fully developed, children can internalize unhealthy or unethical online behavior without adequate value filters, which can impact the quality of students' long-term character.

From a policy perspective, Indonesia has positioned character education as a strategic agenda integrated into various national education policies. Presidential Regulation Number 87 of 2017 concerning Strengthening Character Education affirms that character education is an educational movement aimed at harmonizing students' emotional, intellectual, emotional, and physical development to shape Indonesians with noble character. This policy underscores the state's strong focus on integrating values into the formal education process. However, in the digital era, the implementation of character education faces new challenges. The digital space transcends the boundaries of a formal curriculum and instead operates as a dynamic social arena that demands ethical skills, contextual awareness, and strong critical thinking skills from students.

The urgency of the ethical dimension in digital education is supported by the findings of international assessments, such as the 2022 Programme for International Student Assessment (PISA). PISA results show that Indonesia's reading, mathematics, and science scores are below the OECD average, at 359, 366, and 383, respectively, compared to the OECD average of 476, 472, and 485. Although PISA assesses 15-year-olds, these findings are relevant for primary education because the competencies measured are the cumulative result of early childhood learning. These deficiencies in literacy and reasoning skills are closely related to aspects of character such as intellectual honesty, disciplined thinking, and resilience to digital distractions.

Pangandaran Regency provides a highly relevant empirical context for examining this issue locally. Regional statistical data shows that nearly all villages in Pangandaran have access to a robust telecommunications network, with 4G/LTE access being the dominant method. The availability of this digital infrastructure indicates that elementary school children in this region have a high level of digital connectivity, which presents significant risks and opportunities. The significant number of elementary schools and Islamic elementary schools (*madrrasah ibtidaiyah*) in this region demonstrates the need for an educational approach that focuses not only on academic achievement but also on creating a moral culture responsive to digital challenges.

In the discourse of Islamic educational scholarship, character formation is not understood simply as the internalization of normative values, but as the process of developing civilized individuals through the integration of cognitive, moral, and spiritual dimensions. Sudarto (2021) emphasizes that Islamic educational philosophy focuses on the goal of education as the formation of the whole person, not merely the accumulation of knowledge. Islamic educational philosophy offers a holistic view that views humans as moral beings with the potential for good and bad actions; from this perspective, character education is positioned as a systematic effort to develop consistent moral dispositions across diverse life contexts.

The philosophy of science is an important instrument in this study because Philosophy of science helps organize scientific and critical thinking regarding the phenomenon of character education in the digital era. Husnaini (2024) emphasized that the philosophy of science reflects not only on the structure of knowledge but also on the epistemic assumptions and values underlying scientific practice. In the context of digital education, philosophy of science helps educators and researchers critically assess information, understand technological claims epistemologically, and formulate an evaluative framework that considers the cognitive and moral aspects of technology use.

The epistemological approach to Islamic education integrates three primary modes of knowledge: bayani (textual), burhani (rational), and irfani (spiritual). These three modalities are necessary to formulate digital character education that goes beyond mastering content, but also encompasses the ability to assess truth, detect information bias, and develop moral sensitivity to the messages consumed. Contemporary research confirms that digital literacy is not merely technical competence but must be linked to ethical literacy that guides students in responsible behavior in the digital space (Arbués, Gómez, & Molina, 2022).

Islamic education literature also underscores the importance of integrating adab values into the curriculum and learning practices. Ousame (2024) suggests that Islamic education can expand the role of teachers beyond simply imparting information to facilitating digital character formation by instilling Islamic moral values in a technological context. This study emphasizes the importance of developing a curriculum that positions digital ethics as an integral part of Islamic religious learning and universal character values.

Thus, character education in the digital era is not simply a response to digital risks but also a pedagogical strategy rooted in a strong philosophical foundation. UNESCO (2023) highlights that the use of generative technology in education needs to be designed with the principles of human agency, data protection, and ethical awareness, which align with the goal of Islamic education to shape dignified human beings. In the realm of basic education, this message emphasizes that technology must be positioned as a tool to humanize the learning process and social interaction, not simply as a means of efficient access to information.

This study's framework finds relevance in the need to integrate character education based on an operational and contextual Islamic educational philosophy. This involves not only recommending digital literacy strategies or behavioral codes, but also designing pedagogical practices consistent with the normative goals of Islamic education: to develop individuals who are faithful, knowledgeable, have noble character, and are skilled in using media. Thus, digital character education must be understood as a multidimensional process that integrates normative goals, the learning process, school culture, family and community involvement, and epistemological reflection on the use of technology in children's lives.

2. RESEARCH METHODS

This research methodology was developed to address the philosophical and empirical questions outlined in the introduction, positioning Islamic educational philosophy as the normative foundation and the philosophy of science as a reflective framework for understanding the development of character education in the digital era in primary education. This research employed a qualitative approach with an interpretative-critical paradigm, as character cannot be understood as a stand-alone variable, but rather as a construct of values, meanings, and social practices formed through interactions between students, educators, educational policies, and the digital environment. This approach allows researchers to delve deeply into the meaning of digital character education from an Islamic perspective, while simultaneously critiquing the gap between philosophical ideals and the realities of educational practice. Creswell and Poth (2018) emphasized that qualitative

research is highly relevant for studying educational phenomena that are rich in values and context, as it focuses on understanding the meanings constructed by research subjects.

The interpretative-critical paradigm is used to interpret character education practices as a product of the dialectic between Islamic values, curriculum demands, and the influence of digital technology. In Islamic education, knowledge is not value-free but is always directed toward the ethical goal of developing civilized individuals (Sudarto, 2021). Therefore, this research not only describes ongoing practices but also conducts normative reflection on the extent to which these practices align with the goals of Islamic education in shaping students' character amidst digital challenges.

This research was conducted in Pangandaran Regency, focusing on basic education units, both elementary schools and Islamic elementary schools (*madrasah ibtidaiyah*). This location selection was based on contextual considerations: Pangandaran has relatively equitable access to digital infrastructure and social dynamics influenced by cultural and economic mobility. This situation makes elementary education in Pangandaran a relevant empirical space for examining how Islamic educational values interact with digital realities in shaping children's character from an early age.

The research subjects were determined purposively, taking into account the relevance of the roles and depth of information held by the informants. Key informants included Islamic Religious Education teachers, classroom teachers, school or *madrasah* principals, as well as school institutional documents related to the curriculum and character education strengthening programs. This purposive approach aligns with Patton's (2015) perspective, which emphasizes that qualitative research aims to obtain meaningful data from informants who deeply understand the phenomenon being studied.

Data collection was conducted through documentation studies, semi-structured in-depth interviews, and limited observations. The documentation study was used to examine educational policies, curricula, and character education and digital ethics programs in elementary schools. The in-depth interviews aimed to explore educators' understanding and reflections on the challenges and strategies for character education in the digital age. Brinkmann and Kvale (2018) explain that qualitative interviews enable researchers to build a comprehensive understanding of the subjective meanings held by informants. Observations were conducted to obtain a contextual overview of character education practices and school culture in responding to students' use of digital technology.

Data analysis was conducted thematically and reflectively, integrating empirical findings and philosophical studies. The collected data were reduced, categorized, and interpreted to identify key themes related to Islamic character values, the challenges of the digital age, and pedagogical practices in elementary education. These themes were then analyzed using the ontological, epistemological, and axiological frameworks of Islamic educational philosophy. This analytical approach aligns with the thematic analysis model developed by Braun and Clarke (2021), which emphasizes in-depth interpretation and critical reflection on qualitative data.

Data validity was maintained through a triangulation strategy of sources and methods, as well as systematic recording of the research process to ensure traceability and consistency of analysis. The principle of trustworthiness in qualitative research was used as a reference to guarantee the credibility and reliability of the findings. Furthermore, this study upholds the ethics of educational research, including obtaining informant consent, data confidentiality, and respect for Islamic values and local culture. From a philosophical perspective, ethical research practices are part of scientific etiquette, ensuring that the knowledge produced is not only epistemically valid but also morally and socially valuable (Husnaini, 2024).

3. RESULTS AND DISCUSSION

This discussion is structured on the assumption that the research problem formulation is directed at understanding how Islamic educational philosophy, through the tools of the philosophy of science, can serve as a conceptual and operational basis for developing character education in the digital era in elementary education in Pangandaran Regency. Because research on this topic directly intersects with changes in the ecology of children's learning, the discussion not only emphasizes the normative ideological arguments of Islamic education but also examines the relevance of these norms through an examination of social data and their implications for pedagogical design, school culture, and the governance of the character education ecosystem.

Within the framework of contemporary Islamic education research, the issue of character in the digital era cannot simply be understood as an addition to media ethics material but rather needs to be positioned as a philosophical problem of education: the nature of human learning (ontology), how knowledge and values are constructed and internalized (epistemology), and for what purposes technology is used in education (axiology) (Assegaf, 2017; Nata, 2016). At this point, the philosophy of science serves as a reading tool to ensure that character development does not fall into mere moral campaigns with little power to change, but becomes a measurable pedagogical transformation in children's habits, dispositions, and ethical decisions when dealing with digital information, interactions, and temptations (Ribble, 2015; Kristjánsson, 2015).

Philosophical Grounds of Islamic Education in Developing Digital Character

Based on the problem formulation of how the philosophical foundations of Islamic education can explain and guide character development in the digital era, the conceptual answer begins with the integration of three key horizons. First, the ontological horizon: Islamic education views humans not simply as cognitive beings pursuing 21st-century skills, but as moral beings with the potential to perfect themselves through manners and morals. In the Islamic educational tradition, the goal of learning does not stop at mastering information (ta'lim), but rather moves toward personality formation through a process of nurturing, habituation, and role modeling (tarbiyah), as well as cultivating manners as the core of civilization (Assegaf, 2017; Nata, 2016). The ontological implication is that digital technology must be read as a new living space that mediates action, not simply a neutral tool. Therefore, digital character in Islamic education should be defined as a child's capacity to act correctly (al-ṣawāb) and well (al-khayr) when interacting with devices, information, and other people in the digital space, rather than simply complying with school rules. The epistemological horizon of philosophy of science demands clarity on how moral knowledge is formed. Character education often fails when it is assumed to be sufficiently instilled through normative lectures, whereas the formation of moral dispositions requires repeated experience, reflection, and habituation in authentic contexts. In the digital context, these authentic contexts occur when children choose to share content or refrain, when they respond to hoaxes, when they evaluate figures on social media, and when they navigate friendship conflicts in online groups. Therefore, the epistemology of digital character education that aligns with Islamic education needs to combine normative knowledge (Quranic/prophetic values), practical knowledge (and reflective knowledge). In digital citizenship literature, frameworks such as the nine elements of digital citizenship emphasize that media behavior encompasses ethics, security, rights and responsibilities, information literacy, and digital footprints (Ribble, 2015). Islamic education can Islamize this framework not by cosmetically replacing terms, but by providing an axiological basis for refraining from digital gossip, why maintaining privacy is part of a mandate, and why tabayyun is an epistemic procedure when dealing with the flow of information.

Axiology itself in Islamic education has a strong moral goal of shaping individuals with noble character, while the digital era presents an attention economy that monetizes impulses, emotions, and polarization. Conceptually, axiology functions as a determinant of orientation, whether technology is used to accelerate the internalization of virtue or instead increase distraction. UNESCO emphasizes that the use of technology, including AI, must be framed by the principles of inclusion, justice, and ethical oversight so that education does not simply follow the flow of innovation without direction (Nata, 2016). With the emergence of generative AI, UNESCO also emphasizes the urgency of regulation, privacy protection, and age limits and teacher training so that technology does not undermine human agency and the humanistic values of education (UNESCO, 2023). When viewed from the perspective of Islamic educational axiology, this warning aligns with the principles of safeguarding human dignity (*karāmah insāniyyah*), trustworthiness, and benefit: technology only has educational value when it strengthens morals, not when it normalizes plagiarism, laziness of thought, or the consumption of content that undermines etiquette.

From these three perspectives, the conceptual finding that can be emphasized is that Islamic educational philosophy offers a basic structure for tying digital literacy to moral goals. Within this framework, digital character education is not an additional agenda, but rather a consequence of the goals of Islamic education itself as children's lives shift into the digital ecosystem. Thus, the first problem formulation leads to the proposition that digital character development in primary education requires an etiquette-based pedagogical model that integrates normative values, digital literacy skills, and the practice of habituation in real-life digital situations (Assegaf, (2017).

Empirical Analysis of Digital Era Character Issues Primary Education Pangandaran Regency

Further reading of the empirical context, national data and local indicators provide a crucial foundation for explaining why digital character issues in primary education are urgent and structural. Nationally, the digital space in Indonesia has become the dominant social environment. The 2024 Indonesian Internet Penetration Survey shows that the internet penetration rate has reached 79.5%, with approximately 221.56 million users. This data confirms that the internet is no longer a complementary technology but has become embedded in the daily lives of Indonesian families, including households with elementary school-aged children.

From a character education perspective, the normalization of the digital space cannot be understood simply as the availability of technological access. In this context, it also means the normalization of a new arena for value formation. Numerous digital education studies emphasize that the online space is a social space fraught with value structures, power relations, and temptations for deviant behavior. Therefore, the higher the level of internet penetration, the greater the need for character education that can function as a moral immune system for children in dealing with the content, interactions, and algorithmic mechanisms of the digital world.

The concrete risks resulting from weak digital character education are empirically demonstrated in data showing that only 37.5% of children have received information about how to use the internet safely, 42% of children admit to feeling uncomfortable or afraid due to online experiences, and 50.3% of children have seen sexual images on social media. These findings indicate a serious gap between expanding digital access and children's character readiness, literacy, and psychosocial protection.

Various previous studies in the field of elementary school character education corroborate these findings. A systematic literature review shows that the use of digital technology in character education is only effective when accompanied by teacher guidance, parental involvement, and the integration of values into the school culture (Nurazizah,

2025). Without such an ecosystem, technology has the potential to exacerbate problems, such as device addiction, exposure to inappropriate content, and decreased self-control and social empathy in children (Mahmuddah & Junaidi, 2025).

The literacy dimension is a key factor that further emphasizes the urgency of character education in the digital age. This era demands the ability to read critically, verify information, and assess the credibility of sources. The results of the data study indicate that Indonesian students' literacy achievement remains relatively low. The proportion of students achieving the minimum competency level is recorded at around 25% in reading, 18% in mathematics, and 34% in science.

While these data are often interpreted as academic indicators, in the context of this research, these findings can also be read as indicators of epistemic vulnerability. Limited reading and critical reasoning skills make children more susceptible to disinformation, emotional manipulation, and social pressure in the digital space. Therefore, digital character education cannot be separated from strengthening basic literacy. Characters such as intellectual honesty, prudence, and *tabayyun* (reflection) require cognitive and linguistic prerequisites to be consciously actualized in digital media practices.

In the local context, this study views Pangandaran Regency as a unique educational ecology. As a region with relatively high tourism intensity and social mobility, Pangandaran has the potential to provide stronger exposure to popular culture and digital lifestyles for elementary school-aged children. This exposure can occur through family devices, friendship networks, tourism promotional content, and social media widely circulated in the service economy. This statement is inferential and requires field verification. However, theoretically, this argument aligns with the ecological approach to education, which places the socioeconomic environment as a crucial factor in shaping children's character. In terms of infrastructure prerequisites, regional statistics show that the entire Pangandaran region has electricity. This fact confirms that the basic prerequisites for a digital ecosystem are in place, so the focus of character education policies and interventions is no longer on energy provision, but rather on strengthening digital literacy, family caregiving, and managing device use at home and school.

Based on the national data set, previous research findings, and contextual inferences, the analytical formulation of the second problem can be emphasized as follows: character problems in the digital era in elementary education arise from the tension between high digital exposure and weak protection in the form of digital literacy, online security, parental guidance, and critical thinking skills. This tension has the potential to become more acute in regions experiencing acceleration of digital culture is driven by economic and social mobility. Therefore, the need for character education in Pangandaran cannot be sufficiently met through normative digital ethics instruction. What is needed is the development of a digital character education ecosystem that connects schools, families, and communities through a consistent value framework, supported by contextual and adaptive pedagogical tools. This approach aligns with the results of recent digital character education research that emphasizes the importance of cross-domain collaboration as the key to sustainable internalization of values in the digital era.

Pedagogical Strategies of Islamic Education Developing Character in the Digital Era

The most appropriate pedagogical strategy within the framework of Islamic educational philosophy for developing character in the digital age is elementary education. At this point, the discussion needs to shift from "why" to "how," and from "norms" to "practical design." In elementary education, an effective character strategy typically requires three layers of mutually reinforcing interventions: the curricular, pedagogical, and cultural layers. Islamic education adds a layer often overlooked in technocratic designs: moral role models (*uswah*),

as children's internalization of morals is strongly influenced by the authoritative figures they trust.

At the curricular level, Islamic Religious Education (Agrana Islam) and Islamic content should ideally not be understood as standalone subjects, but as a center of values that radiate throughout the school culture. To remain sustainable in the digital age, Islamic Religious Education content needs to emphasize that etiquette extends beyond classroom etiquette to family WhatsApp groups, comment sections, and selection of viewing options. A relevant curricular strategy is to map character values to real-life digital situations most familiar to children, such as sharing photos of friends without permission, laughing at friends in a group, or receiving sensational information. This mapping will form the basis for behavioral and portfolio-based formative assessments, not just memorization tests.

At the pedagogical level, digital character education needs to avoid two extremes. The first extreme is technophobia, such as completely banning technology, which is often ineffective in the long term because children continue to live outside of school. The second extreme is technophilia, which involves adopting applications and platforms without value-based design, resulting in learning merely shifting the medium but not strengthening morals. Learning aligned with Islamic educational philosophy should practice the meaning of technology; teachers teach digital skills while guiding their moral reasoning. Digital citizenship literature emphasizes the importance of explicit instruction on digital rights, responsibilities, and security (Ribble, 2015). In the context of Islamic Religious Education, strengthening this agency can be translated into children's ability to control themselves (*mujāhadah*), choose what is good, and be accountable for their digital footprint as part of a mandate.

Applied research on digital-based Islamic Religious Education (ISE) learning provides a concrete example of how technology can be used for character-based purposes, not just cognitive effectiveness. A study by Yanuardianto, Wibowo, and Crismono (2024) shows that the innovative Beyond the Wall Learning Model in Islamic Religious Education (ISE), utilizing applications such as e-learning and even AR/VR, can increase learning engagement while internalizing the value of tolerance through collaborative projects and cross-perspective dialogue forums. The key takeaway from this study is not simply that AR/VR is effective, but rather that technology becomes effective for character when used to engage children with social experiences that demand specific virtues, such as respecting differences and building solidarity. The study also highlights classic challenges relevant to Pangandaran: disparities in access, the need for teacher training, and issues of digital security and ethics. In other words, technology opens up pedagogical opportunities but also adds institutional workload.

At the cultural level, digital character education demands the formation of collective habits. A strong school culture will lessen the burden of individual advice, as the school's social norms act as a moral buffer. Within the framework of Islamic education, school culture can be built through digital etiquette traditions, such as verifying information before sharing on school channels, using polite language in class groups, and balancing online and offline activities. This culturalization will be more effective if accompanied by parental literacy, as much of children's digital behavior occurs at home. Therefore, relevant pedagogical strategies for Pangandaran should incorporate parent-school partnerships, such as device guidance modules, screen time agreements, and response protocols for online bullying.

At the role model level, Islamic Religious Education teachers play a broader role than content instructors. In many Islamic education studies, Islamic Religious Education teachers are positioned as moral role models and spiritual facilitators. This finding aligns with the argument that character cannot be transferred like factual knowledge, which is imitated,

practiced, and habituated. Therefore, the competency of digital-era teachers is not only the skill of operating applications, but also the ability to model digital etiquette, such as how teachers respond to hoaxes, how teachers manage conflicts in groups, how teachers respect student privacy, and how Teachers maintain academic integrity when using technology. This emphasizes the need for teacher training to ensure technology does not undermine core educational values. In Islamic education, this training should be based on professional morals, trustworthiness, fairness, and pedagogical compassion.

Therefore, based on this overall discussion, the findings suggest that the pedagogical strategy for Islamic education for digital character must be ecosystemic, integrating curricular design based on real-world digital situations, experiential-reflective pedagogy, a consistent school culture, family partnerships, and teacher role models. This strategy is more powerful than a one-time socialization approach because it works on the habits and social structures that shape children's daily actions (Yanuardianto et al., 2024).

Development Models and Success Indicators of Learning in the Digital Era

Typically, discussing a problem requires a focus on formulating a digital character development model based on Islamic educational philosophy and defining indicators of success. Because this research focuses on the philosophy of Islamic science and education, the model offered should not simply be a program, but rather a testable and replicable framework. A relevant model can be formulated as an adab-based digital ta'dīb model, a model that places adab as the core, digital literacy as the instrument, and public welfare as the value orientation.

In this model, the process of digital character development in elementary school children is understood as a series of gradual habituations. The first stage is the formation of moral awareness through Qur'anic narratives and role models. At this stage, children learn to associate digital actions with easily understood moral consequences, such as hurting friends, revealing shame, or lying. The second stage is learning digital literacy skills as a means of upholding values, such as checking sources, recognizing manipulative content, understanding privacy, and managing screen time. The third stage is practicing ethical decision-making through case-based situations close to the child's life, such as group conversation simulations, exercises in refusing invitations to share inappropriate content, or projects creating educational content. The fourth stage is guided reflection and self-evaluation; in Islamic education, this reflection aligns with the tradition of muhasabah (reflection) to foster self-control and a sense of responsibility.

The strength of the digital ta'dīb model lies in its ability to link modern competencies with a clear moral orientation. In the era of generative AI, for example, children may be encouraged to copy answers without understanding; this model emphasizes academic integrity as part of honesty and trustworthiness. The risks of privacy, bias, and the weakening of human agency when AI is used unregulated in primary education require schools to set limits on its use and explicitly teach ethical technology use. Thus, the digital ta'dīb model is not anti-technology, but rather places technology under the discipline of values.

Indicators of success in this model are not solely determined by children's knowledge of the rules, but rather by evidence of consistent behavior. Therefore, indicators need to be formulated across several complementary domains. In the personal-moral domain, indicators include the ability to control oneself in using gadgets, honesty in completing assignments, and the ability to refrain from hurtful behavior such as teasing or spreading photos of friends. In the social domain, indicators include polite language, empathy, and the ability to resolve digital conflicts without verbal abuse. In the intellectual-epistemic domain, indicators include the habit of tabayyun (reflection), the ability to distinguish between fact and opinion, and caution in disseminating information. In the spiritual-axiological domain,

indicators include the awareness that digital activities fall within the horizon of moral responsibility, so that children are encouraged to use technology for the benefit of learning and sharing, not simply for entertainment.

Measurement of these indicators is best done through authentic, age-appropriate assessments: observation of habits, portfolios of work, such as simple educational content products, teacher-guided reflection journals, parent reports on home habits, and documentation of conflict resolution, such as how children apologize after inappropriate digital behavior. Research in the field of character education confirms that character develops through consistent habits. Therefore, assessment instruments should be longitudinal, not a one-time measure. In the Pangandaran context, authentic assessment designs must also be sensitive to variations in digital access between families; assessments should not penalize children with limited access, but should measure ethical maturity based on the context of actual use.

If the overall discussion is summarized as a synthesis-based research finding, the main findings that can be articulated are as follows in the form of a conceptual narrative. First, Islamic educational philosophy provides a strong ontological and axiological foundation for making digital character an inherent part of the goals of Islamic education, not an additional agenda. Second, national aggregate data shows a gap between high internet penetration and children's safety/literacy readiness, a gap that reinforces the urgency of digital character education in primary education. Third, the problem of digital character cannot be solved through moralizing, but rather through pedagogical design that links values to practice, as well as through school culture and family partnerships. Fourth, the adab-based digital ta'dīb model offers a development framework that is relatively compatible with The need for an Independent Curriculum that emphasizes contextual learning while also being compatible with the demands of technology governance emphasized by global institutions such as UNESCO. Fifth, the most valid indicator of success is changes in children's habits and ethical decisions in real-life digital situations, measured authentically and sustainably.

4. CONCLUSION

Based on the above discussion, the conclusion of this study confirms that Islamic educational philosophy, when operationalized through the tools of the philosophy of science, has strong relevance as both a conceptual basis and a practical framework for developing character education in the digital era in primary education in Pangandaran Regency. Digital character education cannot be understood as the addition of material on media ethics, but rather as a logical consequence of changes in children's learning ecology that have shifted the majority of social experiences, information, and identity formation to the digital space. Therefore, character education must be positioned as a process of developing manners and morals that takes place across offline and online spaces and ties digital literacy skills to moral goals and the public good.

Ontologically, students are positioned as moral subjects who require the development of manners to be able to manage digital freedom responsibly. Epistemologically, digital character cannot be formed through verbal approaches or short-term moral campaigns, but rather through authentic experiences, habituation, reflective dialogue, and ethical decision-making exercises in real-life digital situations. Axiologically, the use of technology in education must be directed at protecting students' dignity, strengthening learning agency, and preventing risks that weaken integrity, self-control, and social sensitivity.

In the Pangandaran context, the need for digital character education is structural because extensive digital exposure confronts limited protection in the form of security literacy, family mentoring, and students' critical thinking. Conceptual research findings indicate that an effective approach must be ecosystemic: integrating values into the curriculum and

learning, building a consistent school culture, strengthening teacher role models, and building family and community partnerships as a unified whole for character governance. At the development level, the most relevant model is an etiquette-based model that positions digital literacy as an instrument for moral formation, not as an end in itself. The success of this model is not determined by mastery of rules alone, but rather by changing students' habits and consistent ethical decisions in digital activities, which are evaluated authentically, sustainably, and sensitively to the social context and variations in technology access.

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