

## The Use of Digital Content in Islamic Religious Education (IRE) to Support Environmentally Conscious Character Development

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Submitted: 15-06-2026

Revised: 14-09-2026

Accepted: 15-10-2026

**ABSTRACT** This study analyzes the use of digital content in Islamic Religious Education (IRE) to support the development of environmentally conscious character at SMA Negeri 1 Marisa, Pohuwato Regency. The study used a qualitative approach based on field research. Data were collected through interviews, observation, and documentation involving 30 informants selected purposively. The data were analyzed thematically using the interactive model of Miles, Huberman, and Saldaña, while data trustworthiness was examined through source and method triangulation. The findings show that teachers use YouTube, Canva, and CapCut to connect IRE materials, particularly the Islamic concepts of khalifah (stewardship) and amānah (trust/responsibility), with environmental issues. These learning activities were associated with students' participation in keeping the prayer room and classrooms clean, providing waste bins, sorting waste, and taking part in clean-up activities. The use of digital content was supported by teacher creativity and students' interest, but constrained by digital distractions, differences in digital literacy, and limited facilities. The study concludes that digital content can support learning that connects Islamic values with environmentally responsible practices, although it does not establish that character development is sustained over time.

**Keywords:** *IRE Content Technology, Environmental Character, Islamic Religious Education, Digital Content, Contextual Learning*

**ABSTRAK** Penelitian ini menganalisis pemanfaatan konten digital dalam pembelajaran Pendidikan Agama Islam (PAI) untuk mendukung penguatan karakter berwawasan lingkungan di SMA Negeri 1 Marisa, Kabupaten Pohuwato. Penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian lapangan. Data dikumpulkan melalui wawancara, observasi, dan dokumentasi dengan melibatkan 30 informan yang dipilih secara purposif. Data dianalisis secara tematik menggunakan model interaktif Miles, Huberman, dan Saldaña, sedangkan keabsahan data diperiksa melalui triangulasi sumber dan teknik. Hasil penelitian menunjukkan bahwa guru memanfaatkan YouTube, Canva, dan CapCut untuk mengaitkan materi PAI, khususnya nilai khalifah dan amānah, dengan isu lingkungan. Pembelajaran tersebut berkaitan dengan keterlibatan peserta didik dalam menjaga kebersihan musala dan kelas, menyediakan tempat sampah, memilah sampah, serta mengikuti kegiatan kebersihan. Pemanfaatan konten digital didukung oleh kreativitas guru dan minat peserta didik, tetapi menghadapi hambatan berupa distraksi digital, perbedaan tingkat literasi digital, serta keterbatasan fasilitas. Penelitian ini menyimpulkan bahwa konten digital dapat mendukung pembelajaran yang menghubungkan nilai-nilai keislaman dengan praktik kepedulian lingkungan, tetapi belum membuktikan bahwa pembentukan karakter terjadi secara menetap.

**Kata Kunci:** *Teknologi Konten PAI, Karakter Lingkungan, Pendidikan Agama Islam, Konten Digital, Pembelajaran Kontekstual*

## INTRODUCTION

Islamic Religious Education (IRE) aims not only to improve students' understanding of religious teachings but also to shape their attitudes and behavior in everyday life. One attitude that needs to be cultivated is concern for the environment. Issues involving cleanliness, waste management, and maintaining the school environment indicate that ecological awareness needs to be developed through learning and habituation (Dewi et al., 2020). In this regard, IRE can provide a space for connecting Islamic values with the responsibility to protect the environment (Afriana & Hidayat, 2022; Zulkarnain et al., 2021).

In Islam, responsibility for the environment is related to the position of human beings as khalifah (stewards) on earth and as trustees entrusted with caring for life. These values can be expressed through simple behaviors, such as keeping places clean, maintaining school facilities, sorting waste, and using resources wisely. In this study, environmentally conscious character is understood as awareness, a caring attitude, and concrete actions to protect the environment (Berutu, 2025; Febriani et al., 2026; Wiyono, 2025). Its development therefore requires more than delivering scriptural evidence or advice; it also needs learning experiences that encourage students to understand and practice these values (Khoiri et al., 2021; Yasin, 2019).

Developments in digital technology create opportunities for delivering IRE in more engaging and contextual ways. Videos, digital platforms, and design applications can help teachers present material and connect it with students' lives. However, technology does not automatically shape character. Its use needs to be accompanied by learning activities that encourage students to discuss, reflect on values, and translate them into action. Digital content can therefore function not merely as a medium for delivering material but also as a stimulus for meaningful learning (Hakim et al., 2023; Kesuma et al., 2025; Maimanah et al., 2025).

Several studies have examined the relationship between Islamic education and environmental concern. These studies have addressed the integration of ecological values into IRE, the implementation of ecopedagogy in Islamic educational settings, and participatory or project-based learning activities. Their findings indicate that Islamic values can be connected with ecological awareness and responsibility. Nevertheless, these approaches vary in context and strategy, ranging from curriculum development to habituation and environmental conservation activities (Maslani et al., 2023; Wati et al., 2025; Widayanti & Widyawati, 2024).

Previous studies have also discussed the use of technology in IRE, but there remains room to investigate how digital content is used in efforts to develop environmentally conscious character. Research on technology generally emphasizes media innovation and the learning process, whereas ecopedagogical studies tend to discuss the integration of environmental values through curricula, habituation, or direct activities. Kesuma et al. (2025) examine the digital transformation of IRE learning, while Hakim et al. (2023) investigate the use of technology in contextual learning. Widayanti and Widyawati (2024), meanwhile, focus on zero-waste-based learning in Islamic education. However, the relationship between the use of digital content, the interpretation of Islamic values, and students' environmental actions still requires examination in the context of IRE at the senior high school level. This is the gap addressed by the present study.

This research was conducted at SMA Negeri 1 Marisa in Pohuwato Regency. Based on the research data, IRE teachers use YouTube videos and content created with Canva and CapCut to connect religious material with environmental issues. Environmental concern at the school is also reflected in activities such as keeping the prayer room clean, providing waste bins,

sorting waste, and greening the school grounds. These practices provide a context for examining how digital content is used in learning and connected with students' behavior. The study also considers supporting and inhibiting factors, including teacher creativity, student interest, digital distractions, digital literacy, and the availability of facilities.

Based on this discussion, the study aims to analyze the use of digital content in IRE to support environmentally conscious character development at SMA Negeri 1 Marisa, Pohuwato Regency. It focuses on the forms of digital content use, the process of connecting learning materials with Islamic values, and the relationship between this learning and students' environmental actions. It also identifies factors that support or hinder implementation. Through a qualitative approach, the study seeks to understand the contribution of digital content to IRE based on learning practices at the school, without assuming that technology use directly causes changes in character.

## **METHOD**

This study used a qualitative approach and a field-research design. It was conducted at SMA Negeri 1 Marisa, Pohuwato Regency, from 14 March to 9 April 2026. The study involved 30 informants selected through purposive sampling, including the principal, vice principal, IRE teachers, teachers of other subjects, parents, and students. In-depth interviews were conducted with the principal, vice principal, and IRE teachers, while the other informants were included to obtain a broader range of perspectives (Moleong, 1989; Setiawan & Anggito, 2018).

Data were collected through interviews, observation, and documentation. Interviews were recorded and transcribed verbatim. Observations focused on the use of digital content in IRE lessons, students' responses, and activities related to environmental concern. Documents included school records, learning materials, and documentation of environmental activities (Sugiyono, 2013).

The data were analyzed inductively and contextually through thematic analysis using the interactive model of Miles et al. (2013), which comprises data condensation, data display, and conclusion drawing and verification. The analysis was conducted manually by reading and comparing interview, observation, and documentary data to identify patterns and themes relevant to the research focus. Data trustworthiness was examined through source and method triangulation by comparing information from different informants and checking interview findings against observations and documents.

## **RESULT AND DISCUSSION**

### **Result**

#### **Use of Digital Content in IRE Learning**

The findings show that digital content in Islamic Religious Education (IRE) at SMA Negeri 1 Marisa is used to introduce Islamic values and connect them with environmental issues. IRE teachers use YouTube as well as content designed with Canva and CapCut. The materials include illustrations of environmental damage, short documentaries, and Islamic narratives about human beings as khalifah and trustees responsible for caring for nature.

IRE teachers explained that digital media are used to make religious concepts more concrete. One teacher stated, "I use YouTube and CapCut to make the concepts of khalifah and amānah more concrete" (GPAI-03). The teacher also reported that students showed enthusiasm when viewing illustrations of environmental damage. This suggests that visual media are used to connect IRE materials with environmental issues close to students' everyday lives.

Students also responded positively to the use of digital content. One student stated, “I understand IRE material better when there is a video. It helps me realize that protecting the environment is part of amānah” (PD-07). Another student said that Canva made learning more engaging because the material was presented through images and colors (PD-12). These responses suggest that students perceived digital media as helping them understand the material while attracting their attention during learning.

However, digital content was not treated as the ultimate goal of learning. The principal emphasized that IRE content should address students’ attitudes and sense of responsibility. The principal stated, “Digital IRE content should touch the heart, not merely add knowledge. Students need to feel that they belong to this school” (KS-01). The vice principal also stressed that video use should be followed by concrete action rather than ending with the presentation of material (WKS-02).

### **Internalization of Values and Student Engagement**

The findings indicate that digital-content-based IRE connects environmental issues with Islamic values, particularly the concepts of khalifah and amānah. These values are introduced through visual materials and then linked to students’ responsibility for caring for the school environment. During learning, students have opportunities to discuss environmental issues and relate them to everyday behavior.

The connection between learning materials and action can be seen in several environmental activities. Based on observation, interviews, and documentary data, these activities included keeping the prayer room and classrooms clean, making and placing waste bins, sorting organic and inorganic waste, managing recyclable waste, and participating in group clean-up activities.

One student explained, “After watching a video about keeping the prayer room clean, I helped clean the prayer mats and dispose of the rubbish” (PD-19). Another student said that learning through YouTube helped them understand that khalifah and amānah are not merely theoretical concepts (PD-28). These statements indicate that some students connected the material they learned with environmental activities at school.

Student involvement was also evident in activities carried out by the student council (OSIS). One OSIS member stated, “We put a waste bin in front of the classroom so our friends would not throw rubbish into their desk drawers” (OSIS-22). In addition, a student reported beginning to understand the importance of sorting plastic and paper waste after watching a video about waste (PD-25). These findings illustrate students’ involvement in environmental practices after IRE learning was connected with ecological issues.

### **Contribution to Environmentally Conscious Character**

Based on interviews, observations, and documentation, the contribution of digital IRE content to environmentally conscious character was reflected in three aspects: environmental concern, responsibility, and discipline. These aspects were identified through students’ behavior and activities within the school environment.

First, environmental concern was reflected in students’ participation in keeping the prayer room, classrooms, and school grounds clean. Students reported that learning about cleanliness in the prayer room encouraged them to help clean the place of worship. A teacher of another subject also said that students appeared more concerned about cleanliness after IRE lessons connected religion with environmental issues (GML-04).

Second, environmental responsibility was evident in students’ participation in providing waste bins, sorting waste, and managing recyclable waste. These activities demonstrate practical

forms of responsibility toward the school environment, although the study did not measure whether such behavior was maintained over the long term.

Third, environmental discipline was reflected in efforts to maintain school facilities, dispose of waste properly, and participate in cleaning activities. The vice principal stated that the school routinely monitors the cleanliness of the prayer room and classrooms, as well as waste management (WKS-02).

Overall, the findings suggest that digital IRE content contributes to connecting an understanding of Islamic values with environmental practices. This contribution is visible in students' responses and participation in school activities. However, the findings are not intended to prove that digital content directly causes character formation; rather, they describe the learning process and practices observed during the study.

**Table 1.** Findings on the Use of Digital IRE Content and Its Contribution to Environmentally Conscious Character

| Aspect                       | Form of Implementation                                          | Field Evidence                                                                                      | Contribution to Character                                    |
|------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Digital IRE content          | Use of YouTube, Canva, and CapCut                               | Teachers use visual media to explain khalifah and amānah (GPAI-03)                                  | Helps connect religious material with environmental issues   |
| Value interpretation         | Connecting environmental issues with Islamic values             | Students understand that protecting the environment is part of amānah (PD-07)                       | Introduces religious responsibility toward the environment   |
| Environmental concern        | Keeping the prayer room and classrooms clean                    | Students participate in cleaning the prayer room after learning (PD-19; PD-16)                      | Shows involvement in maintaining cleanliness                 |
| Environmental responsibility | Providing waste bins and sorting waste                          | OSIS members place a bin in front of the classroom (OSIS-22); students begin sorting waste (PD-25)  | Demonstrates practical responsibility toward the environment |
| Environmental discipline     | Maintaining facilities and participating in cleaning activities | The school monitors the cleanliness of the prayer room and classrooms and waste management (WKS-02) | Supports habits of orderliness and cleanliness               |

### Supporting and Inhibiting Factors

The study found that the use of digital IRE content was supported by the school's vision, which aligns religious commitment, mastery of science and technology, and environmental concern. The principal stated that the school's vision supports technology-based learning and environmental awareness (KS-01). Other supporting factors included students' interest in visual media and teachers' creativity in presenting material. A teacher of another subject also noted

that technology can support learning but should be accompanied by practical examples at school (GML-06).

At the same time, several obstacles affected the use of technology. An IRE teacher explained that some students occasionally opened TikTok or games on their phones, disrupting their concentration (GPAI-03). A student similarly admitted being tempted to open a music application while the teacher was showing a video (PD-11). Another student said that videos that were too long made them more likely to use their phones for other purposes (PD-15).

Other obstacles involved differences in digital literacy and the availability of learning facilities. A teacher of another subject stated that students' digital literacy skills were uneven and some still needed guidance (GML-04). The vice principal explained that facilities such as projectors and internet access were not equally available in all classrooms (WKS-02). The principal also emphasized the need to supervise internet content because online information is not always accurate (KS-01).

To address these obstacles, school leaders and teachers emphasized the need for guidance, supervision, and follow-up learning through practical activities. The vice principal said teachers had been reminded not merely to show videos but also to follow them with concrete action (WKS-02). These data indicate that digital content should be accompanied by classroom management and contextual activities so that learning materials are connected with environmental practices.

**Table 2.** Supporting Factors, Obstacles, and Learning Responses

| <b>Factor</b>     | <b>Field Finding</b>                                                                     | <b>Response or Learning Implication</b>                                 |
|-------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Supporting        | The school's vision supports technology-based learning and environmental concern (KS-01) | IRE content can connect environmental concern with school programs      |
| Supporting        | Students are interested in visual media, and teachers use YouTube, Canva, and CapCut.    | Materials can be presented visually and connected with students' lives. |
| Obstacle          | Students open TikTok, games, or music during lessons (GPAI-03; PD-11; PD-15)             | Device use requires supervision and classroom management.               |
| Obstacle          | Students' digital literacy is uneven (GML-04)                                            | Students need guidance in using digital media.                          |
| Obstacle          | Projectors and internet access are not equally available in all classrooms (WKS-02)      | Technology use should reflect available facilities.                     |
| Obstacle          | Online content is not always accurate (KS-01)                                            | Teachers need to check and select content before use.                   |
| Learning response | Teachers need to check and select content before use                                     | Learning should be connected with cleaning and                          |

## **Discussion**

### **Digital IRE Content as a Mediator of Environmental-Values Learning**

The findings suggest that digital content in IRE functions as a pedagogical mediator connecting Islamic values with environmental issues in students' surroundings. The use of YouTube, Canva, and CapCut is not merely a variation in instructional media; it also helps teachers present the concepts of khalifah and amānah through illustrations related to students' lives. In this context, digital media serve to clarify the material and open opportunities for discussion about human responsibility toward the environment.

These findings are consistent with Herminingsih et al. (2022), who discuss the use of digital media in learning and its relevance to presenting IRE material. Akbar (2025) also describes the use of digital technology, including YouTube and internet-based learning tools, to support IRE. The present study extends this discussion by showing that digital media are used not only to deliver religious material in general but also to connect religious values with environmental issues and practical activities at school.

Nevertheless, students' reports that the material was easier to understand or more engaging should not automatically be interpreted as evidence of improved learning outcomes. In this study, such data reflect students' experiences and perceptions of learning. The contribution of digital media is therefore more appropriately described as supporting the presentation of material, learning engagement, and the connection between Islamic values and environmental contexts.

### **Internalization of Islamic Values and Ecological Literacy**

Another finding is that environmental values are introduced by connecting ecological issues with the concepts of khalifah and amānah. This connection provides a religious framework through which students can understand that keeping the prayer room, classrooms, and school environment clean is not merely an obligation to maintain facilities but can also be understood as a moral and religious responsibility. This understanding is reflected in students' statements connecting the concept of amānah with environmental behavior.

This finding is consistent with Noor and Damayanti (2022), who discuss the internalization of environmental-care values through IRE, and Ishaki et al. (2024), who identify IRE teachers as important contributors to strengthening environmental-care character at school. Haerani et al. (2022) and Sagala et al. (2024) also emphasize the relevance of religious education to fostering concern for cleanliness and environmental conservation. The present study shows that these values can be addressed by connecting religious material with visual content and environmental issues encountered by students.

However, value internalization cannot be inferred solely from students' understanding or statements. The data show that some students connected learning with actions such as cleaning the prayer room, sorting waste, and providing waste bins. These practices indicate participation in environmental activities, but they are insufficient to establish that character has become stable over time. Accordingly, the term 'character development' in this study refers to the contribution of learning to students' understanding, awareness, and practices observed or reported during the research period.

## **From Digital Content to Environmental Practice**

One important finding is the connection between the use of digital content and environmental activities at school. Learning did not stop with showing videos or explaining the concepts of *khalifah* and *amānah*; it was followed by discussion and activities such as keeping the prayer room clean, providing waste bins, sorting waste, and greening the school grounds. Digital content thus served as a starting point for learning, while environmental activities provided opportunities for students to apply the values discussed.

This pattern resembles contextual and project-based learning approaches, which connect learning materials with real-world problems. Widayanti and Widyawati (2024), for example, discuss the development of sustainability education in Islamic education through zero-waste-based learning. Their study emphasizes the importance of connecting knowledge with environmental-management practices. The findings at SMA Negeri 1 Marisa show a similar pattern: environmental values in IRE are connected with activities students can carry out in the school environment.

Nevertheless, the available data are insufficient to conclude that all these activities constitute formal Project-Based Learning (PjBL). To classify them as PjBL, it would be necessary to establish whether they involve a driving question or problem, project planning, student implementation, a product or outcome, and reflection and evaluation. Therefore, based on the available findings, the more cautious terms are ‘project-oriented environmental activities’ or ‘contextual learning directed toward environmental action.’

The main contribution of digital IRE content therefore lies not in the use of particular applications but in the connection between media, explanations of Islamic values, discussion, and environmental practice. Technology helps present issues visually, while contextual activities provide students with opportunities to participate in relevant actions.

## **Teachers’ Digital Competence and Learning Management**

The study also indicates that the use of digital content depends on teachers’ roles in selecting, developing, and guiding the use of media. Teachers are not merely technology users; they also need to ensure that content is aligned with learning objectives, accurate, and relevant to the values being taught. This is reflected in the need for teachers to select digital materials, connect content with Islamic concepts, and guide students toward follow-up activities.

This discussion is consistent with Aspi & Syahrani (2023), Hendrian et al. (2025), and Sugiarto and Farid (2023), which are cited in the manuscript to explain teachers’ roles and challenges in the digital era. This literature reinforces the point that using technology involves more than providing devices or displaying material. Teachers remain responsible for curating content, facilitating learning, and guiding students to use media responsibly.

The findings also reveal challenges involving digital distraction, differences in students’ digital literacy, limited facilities, and the need to verify content. This is consistent with the discussion by Ningsih (2025), Sari (2025), and Wiyono (2025), cited in the manuscript in relation to challenges in using digital media for learning. Technology thus presents both opportunities and limitations: visual media can support learning, but unmanaged device use may distract students.

The implication is that digital IRE content should be accompanied by classroom management, appropriate content selection, clear rules for device use, and well-defined learning activities. Teachers should also consider available facilities so that learning does not depend entirely on internet access or particular devices. In this study, the teacher serves as an important link between digital content, the interpretation of values, and students’ participation in environmental activities.

## **Theoretical and Practical Contributions**

Theoretically, this study suggests that the use of digital content in IRE can be understood as a pedagogical process connecting three elements: digital representation, the interpretation of Islamic values, and environmental practice. This perspective extends research on digital media in IRE, which often emphasizes content delivery or learning quality (Akbar, 2025; Herminingsih et al., 2022). In environmental education, the study also aligns with research emphasizing the connection between religious values and ecological concern (Ishaki et al., 2024; Noor & Damayanti, 2022; Widayanti & Widyawati, 2024).

The contribution of this study lies in explaining how digital content is used in IRE at a secondary school, how the values of *khalifah* and *amānah* are connected with environmental issues, and how this learning relates to students' environmental activities. Digital content is therefore not understood as the sole factor shaping character, but as one element in a learning process involving teachers, religious values, school culture, and student activities.

Practically, the findings indicate that IRE teachers can design learning activities that connect visual content with environmental issues relevant to students' lives. Schools can support this process by providing facilities, establishing policies for device use, strengthening teachers' digital competence, and sustaining environmental activities. Learning is more meaningful when digital materials do not remain something students merely watch, but are followed by discussion, reflection, and contextual activities that enable students to practice the values they have learned.

## **CONCLUSION**

The findings show that digital content in Islamic Religious Education (IRE) at SMA Negeri 1 Marisa is used through YouTube, Canva, and CapCut to connect Islamic teachings with environmental issues. The values of *khalifah* and *amānah* are introduced through visual content and then linked with activities such as keeping the prayer room and classrooms clean, providing waste bins, sorting waste, and participating in group clean-up activities. These practices reveal a connection between IRE learning and students' participation in environmental activities. However, the use of digital content also faces obstacles, including digital distractions, differences in digital literacy, limited facilities, and the need to verify content.

This study contributes to research on IRE by showing that digital content can serve as a means of connecting Islamic values with environmental issues close to students' lives. The contribution lies not merely in the use of digital applications but in the integration of content presentation, explanation of religious values, discussion, and contextual activities. The findings also highlight the importance of teachers in selecting content, guiding the interpretation of values, and connecting learning with environmental practices. Digital content can therefore support learning relevant to the development of environmental concern, without being treated as the sole factor in character formation.

This study has several limitations. First, it was conducted at a single school using a qualitative approach; its findings therefore describe the context of SMA Negeri 1 Marisa and are not intended for broad generalization. Second, the data are based on interviews, observations, and documentation collected during the research period, so they cannot establish whether students' behavior remains consistent over the long term. Third, the study did not quantitatively measure changes in character or establish a causal relationship between digital-content use and the development of environmentally conscious character. Future research could involve more schools, observe students' practices over a longer period, and develop indicators for examining changes in environmental behavior in greater depth.

## ACKNOWLEDGMENT

The authors would like to express their gratitude to SMA Negeri 1 Marisa, Pohuwato Regency, including the principal, Islamic Religious Education teachers, other subject teachers, OSIS (student council) officers, and students, for their assistance during the data collection process. The authors also extend their appreciation to IAIN Sultan Amai Gorontalo, Universitas Tjut Nyak Dhien Medan, and all parties who provided academic support throughout the preparation of this article.

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