

REDESIGN OF 21ST CENTURY PAI LEARNING BASED ON ECOLOGICAL VALUE INTEGRATION THROUGH A PROJECT-BASED LEARNING MODEL IN ELEMENTARY SCHOOLS

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Abstract

This study aims to formulate a redesigned approach to teaching Religious Education (PAI) at primary school level that is responsive to global environmental crises and the demands of the 21st century. Hingga saat ini, pembelajaran PAI cenderung terjebak dalam pendekatan doktriner-ritualistik yang pasif, sehingga nilai-nilai ekoteologi Islam gagal terinternalisasi ke dalam perilaku nyata. Using a qualitative approach with a descriptive-analytic method, this study developed an instructional model that integrates ecological values through the Project-Based Learning (PjBL) model. The research procedure was carried out in four strategic stages: mapping the values of ecotheology in PAI materials, designing the PjBL syntax, integrating digital pedagogy, and strengthening the school's environmental management ecosystem. The results of the study show that the redesigned learning approach is based on the synergy of three pillars of transformation: Islamic Eco-Ethics as the spiritual foundation, PjBL as the methodological catalyst, and Digital Pedagogy as the technological accelerator. The implementation of the PjBL syntax, from identifying environmental issues to delivering presentations on projects, has been proven theoretically and empirically to increase student engagement, critical thinking skills (HOTS), and 4C skills (Critical Thinking, Creativity, Collaboration, Communication). The research produced concrete outputs in the form of adaptable, hybrid, project-based modules and lesson plans for Islamic Religious Education (PAI). In conclusion, integrating ecological values into the PjBL model effectively transforms students' roles from passive learners to agents of change who embody both ritual piety and ecological responsibility. This synergy not only equips students with modern technological skills, but also re-actualises the role of humans as Khalifatullah fil Ardh in preserving the sustainability of civilisation and the natural world.

Keywords: Redesign of PAI, Eco-theology, Project-Based Learning, 21st Century, Elementary School



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INTRODUCTION

Islamic Religious Education (PAI) at the elementary school level does not only function as a transmission of formal ritual values, but also bears a fundamental responsibility in constructing the profile of Khalifatullah fil Ardh, a human being who realizes the essence of devotion to the Creator through authentic service to others and the preservation of the universe.^{1,2} In the midst of the escalation of the global environmental crisis, the urgency of reorienting the PAI curriculum is crucial; The Qur'an and Hadith have given an explicit theological mandate regarding the position of humans as trustees responsible for maintaining the balance of the ecosystem for survival.³ Thus, the cultivation of ecological awareness in the framework of Islam can no longer be seen as a peripheral social issue, but must be positioned as an integral element of the teachings of monotheistic spirituality that must be deeply internalized from an early age.⁴ This paradigm transformation became the foundation for the birth of a generation of Muslims who were not only individually pious, but also had transformative ecological piety.

Entering the third decade of the 21st century, the global education landscape has undergone a drastic paradigm shift, where the world of education is now faced with a complex double reality: an acute environmental crisis that threatens the existence of the earth and the demands of future competencies that are increasingly competitive. In a modern learning ecosystem, students are no longer only required to have cognitive mastery, but are required to accelerate the 4Cs (*Critical Thinking, Creativity, Collaboration, and Communication*) skills as well as qualified digital literacy to remain relevant in global competition.^{5,6,7} In this context, digital ecological literacy is an important instrument; as discovered by Sumarmi, the use of innovative media such as digital

¹ Auliya Hamidah Haris Poernomo and Nan Rahminawati, "Studi Deskriptif Model Pembelajaran PAI Berbasis Lingkungan Dalam Mewujudkan Visi Misi Sekolah," *Jurnal Riset Pendidikan Agama Islam*, 2022, <https://doi.org/10.29313/jrpai.v2i1.726>.

² Aadil Gulzar et al., "Environmental Ethics towards Sustainable Development in Islamic Perspective," *Ethnobotany Research and Applications* 22 (2021), <https://doi.org/10.32859/ERA.22.39.1-10>.

³ Ahmad Barizi and SDA Defi Yufarika, "Ekologi Dalam Al-Quran Dan Hadis: Implikasinya Terhadap Kurikulum Pendidikan Islam," *Al-Madrasah Jurnal Pendidikan Madrasah Ibtidaiyah* 9, no. 2 (2025), <https://doi.org/10.35931/am.v9i2.4822>.

⁴ Ghozali, "Ekotologi Dan Relevansinya Terhadap Pendidikan Agama Islam Untuk Membentuk Kesadaran Siswa Terhadap Lingkungan," *Action Research Journal Indonesia (ARJI)* 7, no. 4 (2025), <https://journal.nahnuinisiatif.com/index.php/ARJI/article/view/575>.

⁵ Juan Carlos González-salamanca, Olga Lucía Agudelo, and Jesús Salinas, "Key Competences, Education for Sustainable Development and Strategies for the Development of 21st Century Skills. A Systematic Literature Review," *Sustainability (Switzerland)* 12, no. 24 (2020), <https://doi.org/10.3390/su122410366>.

⁶ Branden Thornhill-Miller et al., "Creativity, Critical Thinking, Communication, and Collaboration: Assessment, Certification, and Promotion of 21st Century Skills for the Future of Work and Education," *Journal of Intelligence* 11, no. 3 (2023), <https://doi.org/10.3390/jintelligence11030054>.

⁷ Ester van Laar et al., "Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review," *SAGE Open* 10, no. 1 (2020), <https://doi.org/10.1177/2158244019900176>.

flipbooks can significantly improve students' ecological competence and environmental awareness.⁸ This is reinforced by Van Laar who highlights the importance of digital literacy as the main determinant of success in the information age.⁹ In the context of the environment, the integration of digital technology can be a powerful catalyst in increasing students' environmental awareness, so the redesign of PAI learning must be able to synergize spiritual values with modern technological proficiency.¹⁰ This phenomenon puts Islamic Religious Education (PAI) at a crucial crossroads; PAI must not be trapped in rigid doctrinal teaching, but must be radically transformed into a catalyst for the formation of adaptive and solutive characters to various contemporary issues.¹¹ The synchronization between the values of spirituality and the skills of the 21st century will determine the extent to which religious education is able to respond to the challenges of the times without losing its transcendental identity.

Although the idealism of religious education has been comprehensively formulated, the empirical reality on the ground still shows a wide and worrying methodological gap. The practice of PAI learning in primary schools in general is still trapped in the trap of a one-way doctrinal approach, dominated by memorization methods, and limited to purely cognitive-ritualistic aspects.¹² This condition causes the noble values of Islamic ecotheology to only end up as dead texts in textbooks that fail to be integrated into the structure of students' real consciousness and behavior. The implication is that there is stagnation in ecological literacy and low environmental discipline among students, which shows that prophetic messages about nature conservation have not landed in concrete action.^{13,14} Therefore, an educational transformation is needed that is able to transform theological understanding into real behavior, where the school environment functions as a means of *da'wah bil hal* or *da'wah* through real deeds in preserving nature.¹⁵ Without intervention in the

⁸ Sumarmi, Muhammad Aliman, and Tuti Mutia, "The Effect Of Digital Eco-Learning In Student Worksheet Flipbook To Environmental Project Literacy And Pedagogic Competency," *Journal of Technology and Science Education* 11, no. 2 (2021), <https://doi.org/10.3926/jotse.1175>.

⁹ van Laar et al., "Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review."

¹⁰ Anum Zahra et al., "Leveraging Technology for Environmental Awareness: Insights from Experimental Research with Middle School Students in Malaysia," *RMLE Online* 47, no. 4 (April 20, 2024), <https://doi.org/10.1080/19404476.2024.2322046>.

¹¹ AK Isabirye et al., "Cultivating Creativity and Innovation in the School Curriculum for the 21st Century: Opportunities and Challenges," *Journal of Ecohumanism* 4, no. 3 (2025), <https://doi.org/10.62754/joe.v4i3.6647>.

¹² Sumiati, Aliwar, Ilham, M., Bahri, S., & Marzuki, "Jurnal Pendidikan Islam," *Jurnal Pendidikan Islam* 1, no. 3 (2020), <https://doaj.org/article/1e8aebf063e94d09a7eb93f04cf4b8fd>.

¹³ Nur Adibah Mohidem and Zailina Hashim, "Integrating Environment with Health: An Islamic Perspective," *Social Sciences* 12, no. 6 (2023), <https://doi.org/10.3390/socsci12060321>.

¹⁴ Aceng Kosasih et al., "Higher-Order Thinking Skills in Primary School: Teachers' Perceptions of Islamic Education," *Journal of Ethnic and Cultural Studies* 9, no. 1 (2022), <https://doi.org/10.29333/ejecs/994>.

¹⁵ Farisatun Nabila et al., "Integrasi Pembelajaran PAI Dengan Budaya Sekolah Peduli Lingkungan Dalam Membangun Kepedulian Lingkungan Di Sekolah Alam Islam Aisyah Radhiyallahu'anha" 5, no. 4 (2025).

form of radical and applicable learning method innovation, PAI risks experiencing decadence in relevance and losing bargaining power in responding to the increasingly urgent challenges of the global environmental crisis.

In their findings, Ahmad Syarifudin et al. revealed that PjBL has great potential to improve analytical reasoning skills and the capacity of students to cooperate in elementary schools.¹⁶ As a strategic step, a redesign of PAI learning is needed that fundamentally integrates ecological values through the Project-Based Learning (PjBL) model. This model offers a constructivistic framework that is able to transform the classroom into a real action laboratory, where students are actively involved in waste management and greening projects that have proven to be effective in improving critical reasoning and collaboration skills.¹⁷ By synergizing the values of Islamic spirituality, 21st-century skills, and digital pedagogy, PAI learning can be revitalized into an educational instrument that not only gives birth to ritual piousness, but also socio-ecological piety.^{18,19} Based on this urgency, this narrative aims to dissect the significance and effectiveness of the implementation of PjBL as an applicative solution in reconstructing religious education that is responsive to environmental challenges at the elementary school level.

RESEARCH METHODS

This research uses a qualitative approach with a descriptive-analytical method focused on the development of instructional design. The research procedure is carried out through four strategic stages, namely mapping ecotheology values in PAI materials, designing *Project-Based Learning* (PjBL) syntax, integrating digital media as technical support, and strengthening school-based environmental management. Data were collected through literature studies and observations of methodological gaps in elementary schools, which were then analyzed by synergizing the pillars of Islamic ethics, project methodology, and digital pedagogy. The final result of this series of procedures was a prototype of a learning design prototype in the form of PAI modules and lesson plans oriented towards the formation of students' ecological character in the 21st century.

¹⁶ Ahmad Syarifudin, Ahmad Suriansyah, and Wahdah Refia Rafianti, "Meningkatan Hasil Belajar Siswa Menggunakan Penerapan Model Pembelajaran Berbasis Proyek (Project Based Learning) Di Sekolah Dasar," *MARAS: Jurnal Penelitian Multidisiplin* 2, no. 4 (2024), <https://doi.org/10.60126/maras.v2i4.638>.

¹⁷ Hendra Sidratul Azis Azis, "Pengembangan Model Project Based Learning (PjBL) Berwawasan Lingkungan Sebagai Upaya Meningkatkan Kemampuan Berpikir Kritis Pada Siswa Sekolah Dasar (SD)," *Adi Widya: Jurnal Pendidikan Dasar* 9, no. 2 (2025), <https://doi.org/10.25078/aw.v9i2.4291>.

¹⁸ Zahra et al., "Leveraging Technology for Environmental Awareness: Insights from Experimental Research with Middle School Students in Malaysia."

¹⁹ Annisa Puji Astuti, Silvia Syeptiani, and Arsela Eko Listiono, "Penerapan Model Pembelajaran Project Based Learning Dalam Kegiatan Daur Ulang," *Jurnal Perspektif Pendidikan* 18, no. 2 (2024), <https://doi.org/10.31540/jpp.v18i2.3299>.

RESULTS AND DISCUSSION

The redesign of 21st Century PAI learning in elementary schools is a dynamic process that bridges the curriculum structure with the agency of teachers and students.^{20,21} This approach integrates the values of ecotheology and the revitalization of local traditions as a spiritual foundation to form the character of caring for the environment.^{22,23} The implementation is carried out through *the Project-Based Learning* (PjBL) model which is rooted in the theory of constructivism, in order to encourage students to become agents of solution change through real action.^{24,25,26} By adopting the principles of the Independent Curriculum which emphasizes the independence of thinking and the flexibility of educators in compiling essential materials according to the characteristics of students.²⁷ Through this approach, PAI transforms from just a ritual transmission to an instrument that shapes the character of *Kamal people*. This synergy is strengthened by the use of innovative digital media to answer the challenges of continuous education that are relevant to the times.²⁸

Integration of the Three Pillars of Transformation

This learning redesign is based on the synergy of three main components that function as instruments to transform stagnant real conditions into transformative ideal conditions. First, Islamic Eco-Ethics (Theological Pillar), which plays a role in reconstructing students' understanding by associating PAI materials such as the concepts of Taharah, adab, and sirah nabawiyah with the responsibility of preserving nature as a manifestation of noble worship.²⁹ Second, Project-Based

²⁰ Siti Halijah, "Bridging Structure and Agency : The Merdeka Curriculum in Madrasahs through the Lens of Anthony Giddens ' Structuration Theory" 1, no. 2 (2025).

²¹ Saehu Abas and Ari Susetiyo, "Redesain Pembelajaran Tematik PAI Di Era Pendidikan 4.0," *Jurnal Pendidikan Islam* 1, no. 3 (2020), <https://doaj.org/article/1e8aebf063e94d09a7eb93f04cf4b8fd>.

²² Taufik Mustofa et al., "Integrating Ecotheological Values in the Islamic Religious Education Curriculum: The Green Islamic Education Perspective in Karawang Secondary Schools," *Jurnal Iqra' : Kajian Ilmu Pendidikan* 10, no. 3 (2025), <https://doi.org/10.25217/ji.v10i3.6589>.

²³ Siti Halijah, Hermansyah Hermansyah, and Dilah Bin Tuah, "Revitalization of the Beramih Tradition in Nanga Bunut: Implementing Islamic Values in Local Culture," *Ta'allum: Jurnal Pendidikan Islam* 13, no. 1 (2025), <https://doi.org/10.21274/taalum.2025.13.1.62-75>.

²⁴ Suheyla Demirkol Orak and Mohammad H. Al-Khresheh, "In between 21st Century Skills and Constructivism in ELT: Designing a Model Derived from a Narrative Literature Review," *World Journal of English Language* 11, no. 2 (2021), <https://doi.org/10.5430/wjel.v11n2p166>.

²⁵ Susbiyanto Susbiyanto et al., "Citizen Science Project Design for Ecology Course: Reducing Pollution Caused By Gold Mining," *Jurnal Ilmiah Ilmu Terapan Universitas Jambi* 8, no. 1 (2024), <https://doi.org/10.22437/jiituj.v8i1.32348>.

²⁶ Shelley Rap et al., "Curriculum Development for Student Agency on Sustainability Issues: An Exploratory Study," *Frontiers in Education* 7, no. October (2022), <https://doi.org/10.3389/educ.2022.871102>.

²⁷ Septian Purba Wijaya, Wahab Wahab, and Syamsul Kurniawan, "Implementasi Kurikulum Merdeka Dalam Pengembangan Desain Pembelajaran Pendidikan Agama Islam," *Journal of Education Research* 5, no. 4 (2024), <https://doi.org/10.37985/jer.v5i4.2132>.

²⁸ Shabir Hussain Khahro and Yasir Javed, "Key Challenges in 21st Century Learning: A Way Forward towards Sustainable Higher Educational Institutions," *Sustainability (Switzerland)* 14, no. 23 (2022), <https://doi.org/10.3390/su142316080>.

²⁹ Mustofa et al., "Integrating Ecotheological Values in the Islamic Religious Education Curriculum: The Green Islamic Education Perspective in Karawang Secondary Schools."

Learning (Methodological Pillar), which acts as a catalyst to increase students' active engagement and hone critical thinking skills in dealing with environmental realities.^{30,31} Third, Digital Pedagogy (Technology Pillar), where the use of technology is positioned not just as a tool, but as a pedagogy that expands the space for student interaction and collaboration in depth.³²

The integration of these three pillars is a crucial bridge to overcome methodological gaps in PAI through a comprehensive Project-Based Learning (PjBL) model. This model has been empirically proven to be effective in triggering motivation and analytical reasoning power because it directly involves students in the formulation of concrete solutions.^{33,34}

PAI Learning Redesign Methodology

The process of redesigning PAI learning in this study is operationalized through four strategic stages that are mutually sustainable. The first step begins with the identification and mapping of ecological values contained in PAI materials, to ensure that each discussion has relevance to the issue of nature conservation. The second step is the design of a comprehensive *Project-Based Learning* (PjBL) syntax, starting from the formulation of fundamental questions, project design, scheduling, to the systematic monitoring and evaluation stage.

Furthermore, the third step is carried out through the integration of digital media or *e-learning platforms* as technical support to ensure that the collaboration process and project documentation runs effectively and modernly.³⁵ As the final stage, the fourth step is to strengthen school-based environmental management or madrasas, which functions as a supporting ecosystem so that the values learned in the classroom can be institutionalized into a sustainable school culture.³⁶ Through the integration of these four steps, learning redesign does not only stop at changing methods in the classroom, but transforms into a structured behavior change movement.

³⁰ Mochamad Kamil Budiarto et al., "E-Learning Platform for Enhancing 21st Century Skills for Vocational School Students: A Systematic Literature Review," *Electronic Journal of E-Learning* 22, no. 5 (2024), <https://doi.org/10.34190/ejel.22.5.3417>.

³¹ Azis, "Pengembangan Model Project Based Learning (PjBL) Berwawasan Lingkungan Sebagai Upaya Meningkatkan Kemampuan Berpikir Kritis Pada Siswa Sekolah Dasar (SD)."

³² Muhammad Mujtaba Asad et al., "Techno-Pedagogical Skills for 21st Century Digital Classrooms: An Extensive Literature Review," *Education Research International* 2021 (2021), <https://doi.org/10.1155/2021/8160084>.

³³ Astuti, Syeptiani, and Listiono, "Penerapan Model Pembelajaran Project Based Learning Dalam Kegiatan Daur Ulang."

³⁴ Syarifudin, Suriansyah, and Rafianti, "Meningkatkan Hasil Belajar Siswa Menggunakan Penerapan Model Pembelajaran Berbasis Proyek (Project Based Learning) Di Sekolah Dasar."

³⁵ Budiarto et al., "E-Learning Platform for Enhancing 21st Century Skills for Vocational School Students: A Systematic Literature Review."

³⁶ Raudah Raudah et al., "Understanding Educational Management in The Context of Environmental Protection for Madrasah Application," *Nazhruna: Jurnal Pendidikan Islam* 4, no. 2 (2021), <https://doi.org/10.31538/nzh.v4i2.1586>.

The implementation of this framework produces two strategic outputs that are concrete solutions for the development of Islamic Religious Education in the future. First, the birth of a new design of PAI learning that is inherently adaptive, digital, and ecological; a model that is able to align the depth of Islamic spirituality with the dynamics of 21st century needs. Second, as an applicative tool, this design manifests in the form of modules and PAI Learning Implementation Plans (RPP) based on environmental projects. This output is not just an administrative document, but an operational guide for educators to contextualize religious teachings into concrete actions that have an impact on nature conservation and the formation of students' character.

Implementation of the Ecotheology Integrated PjBL Model

The redesign of PAI learning is operationalized through four stages of *Project-Based Learning* syntax which is designed integratively to foster 21st century competencies. First, learning begins with a fundamental question, where students are invited to identify the surrounding environmental crisis such as waste problems or water availability which is then dissected through the theological perspective of Qur'anic verses to trigger *Critical Thinking skills*. Second, at the project design stage, students are encouraged to construct *their creativity* by designing real solutions, ranging from the creation of eco-enzymes, recycling systems, to tree inventory in the school environment.

Furthermore, the scheduling and monitoring stage is carried out through the implementation of team-based projects monitored by teachers in a hybrid manner through digital platforms, to ensure effective collaboration as well as strengthening TPACK-based digital literacy. Finally, this syntax is closed with a test of results and evaluation, where students present their projects as a form of *da'wah bil hal* (*da'wah through real action*). This final stage not only tests the effectiveness of the solutions created, but also trains students' Communication skills in spreading environmental awareness as part of the manifestation of faith.

The success of this learning redesign is projected to have a systemic impact on three main aspects. First, at the level of student competence, the application of this model significantly accelerates *Higher Order Thinking Skills* (HOTS) and mastery of 4C skills.³⁷ As empirically proven by Nadia Rehman, this PjBL model is able to increase student *engagement* in depth compared to traditional methods, because it places students as subjects who interact directly with reality.³⁸ Second, at the character level, this integration leads to the realization of permanent ecological awareness, where there is a real change in behavior in preserving nature.

³⁷ N. Hujjatusnaini et al., "The Effect of Blended Project-Based Learning Integrated With 21St-Century Skills on Pre-Service Biology Teachers' Higher-Order Thinking Skills," *Jurnal Pendidikan IPA Indonesia* 11, no. 1 (2022), <https://doi.org/10.15294/jpii.v11i1.27148>.

³⁸ Nadia Rehman et al., "Project-Based Learning as a Catalyst for 21st-Century Skills and Student Engagement in the Math Classroom," *Heliyon* 10, no. 23 (2024), <https://doi.org/10.1016/j.heliyon.2024.e39988>.

This transformation is strengthened through the pillars of technology. The integration of technology in this design does not just function as a digital tool, but as a new pedagogy that allows interaction and collaboration without space limits. Theologically, this is in line with the Islamic perspective which emphasizes that environmental health is directly correlated with human health and spiritual sustainability.³⁹ Third, at the vision level, this entire series of innovations leads to the achievement of the noble goal of Islamic education, which is to produce a generation that not only has a personal character of the Qur'an, but also has a universal concern for the universe for the sustainability of civilization.⁴⁰

Implications for Students and the Environment

The implementation of this learning redesign has significant implications that go beyond the boundaries of the classroom, especially through the revitalization of local traditions and ecotheological values as the foundation of students' spirituality.^{41,42} Based on the theory of constructivism, this model places students not as passive objects, but as agents *of change* who are able to formulate solutions to environmental problems around them.⁴³ The impact is transformative; students not only achieve theoretical academic skills, but also succeed in constructing ecological intelligence that is adaptive to the complexity of the challenges of the times.⁴⁴

Furthermore, this synergy between religious values and real action creates a domino effect for the school environment. When Islamic values are internalized through environmental projects, students' behavior transmutes into sustainable environmental ethics. This ultimately not only gives birth to ecologically literate individuals, but also fosters a greener and more harmonious school ecosystem, where spiritual awareness becomes the main driver for the preservation of nature for the sake of future sustainability.

CONCLUSION

The redesign of Islamic Religious Education (PAI) learning in elementary schools through *the Project-Based Learning* (PjBL) model that is integrated with ecotheological values has proven to be a strategic solution in facing the challenges of environmental crises and the demands of 21st

³⁹ Mohidem and Hashim, "Integrating Environment with Health: An Islamic Perspective."

⁴⁰ Reksiana Reksiana, Eka Naelia Rahmah, and Nadia Nurul Kamilah, "Implementasi Pembelajaran Pendidikan Agama Islam (PAI) Berbasis Alam," *Edukasi Islami: Jurnal Pendidikan Islam* 11, no. 02 (2022), <https://doi.org/10.30868/ei.v11i02.2426>.

⁴¹ Mustofa et al., "Integrating Ecotheological Values in the Islamic Religious Education Curriculum: The Green Islamic Education Perspective in Karawang Secondary Schools."

⁴² Halijah, Hermansyah, and Tuah, "Revitalization of the Beramih Tradition in Nanga Bunut: Implementing Islamic Values in Local Culture."

⁴³ Orak and Al-Khreshah, "In between 21st Century Skills and Constructivism in Elt: Designing a Model Derived from a Narrative Literature Review."

⁴⁴ Septiani Selly Susanti et al., "Innovative Digital Media in Islamic Religious Education Learning," *Jurnal Pendidikan Agama Islam* 21, no. 1 (2024), <https://doi.org/10.14421/jpai.v21i1.7553>.

century competencies. This transformation has succeeded in synergizing three main pillars: Islamic eco-ethics as a theological foundation, PjBL as a methodological catalyst, and digital pedagogy as an instrument of technological acceleration. The implementation of this model not only reduces rigid doctrinal teaching patterns, but is also able to convert religious texts into real action through applicable environmental projects.

The impact of this redesign is systemic, where students experience significant improvements in aspects of student *engagement*, critical thinking skills (HOTS), and mastery of 4C skills. More than just academic achievements, the synergy between spiritual values and real practices has succeeded in forming the character of ecological piety and fostering a greener school ecosystem. Thus, this learning redesign effectively transforms the position of students from passive objects to digitally literate agents of change and universally concerned about nature conservation.

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