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Abstract:

Sustainable education has become increasingly crucial in addressing global challenges, particularly those related to environmental degradation. Despite its prominence in academic discourse, its application within Islamic boarding schools remains underexplored, creating a gap that necessitates thorough examination. This study aims to evaluate the implementation of sustainable education within Islamic boarding schools, focusing on supporting and inhibiting factors. Using a qualitative approach, this research employs the CIPP (Context, Input, Process, Product) evaluation model to analyze data collected from interviews, observations, and document reviews. Findings reveal that sustainable education in the context of an Islamic boarding school manifests in three dimensions: extracurricular activities integrating environmental themes into religious education, extracurricular activities such as a Smart Cooking Class, and co-curricular initiatives like the Pancasila Student Profile Strengthening Project (P5). However, challenges persist, including uneven teacher competencies in embedding sustainability values and a narrow focus on specific activities and subjects. The study highlights the need for a broader integration of sustainability principles across disciplines and educational contexts. This research contributes to the field by providing a nuanced understanding of sustainable education implementation in Islamic boarding schools and offers recommendations for enhancing its scope and effectiveness in similar educational settings.

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INTRODUCTION

Sustainable education has emerged as a central theme in academic discourse, primarily as a response to the sustainability challenges confronting humanity. The integration of education for sustainable development into academic programs is vital to fostering greater awareness and positive attitudes among students toward sustainability. This emphasis on sustainable education also serves as a critique of conventional educational models, which often



prioritize consumerism over environmental stewardship.¹ Sterling argues that the quality of education delivered today will be a decisive factor in global sustainability over the next decade.² Thus, a collective shift in mindset and approach is urgently required if we are to navigate the changes needed for a sustainable future.³

Islamic boarding schools, or *pesantren*, must play a pivotal role in the realization of sustainable education.⁴ As institutions committed to fostering a morally upright society, producing religious leaders, and addressing societal challenges,⁵ these schools bear the responsibility of embedding sustainability principles. Specifically, there is a pressing need to integrate Islamic values that emphasize environmental stewardship and social well-being.

While there has been a positive increase in the number of articles addressing sustainability within *pesantren*, attention to this critical issue remains scarce. The potential for harmonizing sustainability efforts with Islamic teachings in these institutions is immense. Studies by Ngabekti, Joko Purnomo, and Apriliana highlight the significant role *pesantren* can play in promoting sustainability across various dimensions. For instance, initiatives in waste management, as demonstrated by Setyaningrum et al., Nurdiani et al., and Jauhariyah et al., have yielded successful outcomes.

However, there is still a notable absence of a structured and systematic approach to integrating sustainability into the curriculum, despite the clear need for such integration in boarding schools like *pesantren*. This research, therefore, seeks to delve deeper into the implementation of sustainable education within the curriculum framework in *pesantren*.

This research focuses on Al Achyar Islamic Boarding School in Banyuwangi, an institution nestled in an environment abundant with natural resources. Surrounded by rivers, mountains, and a pristine rural landscape, the *pesantren* is deeply integrated with its natural surroundings. Yet, this beautiful environment has recently faced the encroaching threat of exploitation, with ongoing mountain excavation for stone extraction in recent years. The juxtaposition of stunning landscapes with the stark reality of human-driven environmental degradation is part of the daily experience here. In response, the *pesantren* is dedicated to

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¹ Stephen Sterling, "Sustainable Education," in *Science, Society and Sustainability* (Routledge, 2010), 127–40; Ayesha Nousheen et al., "Education for Sustainable Development (ESD): Effects of Sustainability Education on Pre-Service Teachers' Attitude towards Sustainable Development (SD)," *Journal of Cleaner Production* 250 (March 2020): 119537, https://doi.org/10.1016/j.jclepro.2019.119537.

² Stephen Sterling and David Orr, *Sustainable Education: Re-Visioning Learning and Change*, vol. 6 (Totnes: Green Books for the Schumacher Society, 2001).

³ Sharon Stein et al., "Education for Sustainable Development" to "Education for The End of The World as We Know It," in *Education for Sustainable Development in the 'Capitalocene'* (Routledge, 2023), 51–64.

⁴ Mokhammad Miftakhul Huda, and Muhammad Nabil Musyarrof. 2023. "Ma'had Aly: Integration of Islamic Universities and Islamic Boarding Schools". *IJIBS* 1 (2):135-56. https://doi.org/10.35719/ijibs.v1i2.24.

⁵ Nur Khasanah, Achmad Irwan Hamzani, and Havis Aravik, *Pesantren Salafiyah Dalam Lintasan Sejarah* (Pekalongan: Nasya Expanding Management, 2022).

⁶ Sri Ngabekti et al., "Pendidikan Untuk Pembangunan Berkelanjutan Di Pondok Pesantren," *Proceeding Biology Education Conference: Biology, Science, Environmental, and Learning* 9, no. 1 (2011): 347–52.

⁷ Joko Purnomo, *Pemberdayaan Masyarakat Pesantren Melalui Program Pesantren Ramah Lingkungan Menuju Pembangunan Berkelanjutan (Studi Kasus Pondok Pesantren Modern Islam Assalaam)*, Dissertation (Solo: UNS, 2024).

⁸ Heny Sri Setyaningrum and Ali Mokhtar, "Strategi Pengelolaan Sampah Di Pondok Pesantren Al Fatah, Temboro, Karas Magetan Yang Berkelanjutan," *Seminar Keinsinyuran Program Studi Program Profesi Insinyur* 3, no. 1 (May 3, 2023), https://doi.org/10.22219/skpsppi.v3i1.10971.

⁹ Nur Anim Jauhariyah et al., "Pengembangan Pemberdayaan Ekonomi Pesantren Melalui Pengelolaan Sampah Secara Berkelanjutan," *LOYALITAS: Jurnal Pengabdian Kepada Masyarakat* 6, no. 1 (May 31, 2023): 116–27, https://doi.org/10.30739/loyalitas.v6i1.2250.

¹⁰ Asdlori Asdlori, "Pendidikan Islam Sebagai Pilar Pembangunan Berkelanjutan: Peran Sistem Pendidikan Pesantren Dalam Implementasi SDGs," *Jurnal Pendidikan Islam Al-Ilmi* 6, no. 1 (May 28, 2023): 124, https://doi.org/10.32529/al-ilmi.v6i1.2530.

shifting the prevailing mindset from one of exploitation to conservation through its educational practices. The curriculum holds significant potential as a tool for fostering sustainability awareness, aiming to cultivate future graduates who are attuned to environmental stewardship.

The objective of this research is to explore and assess the implementation of sustainable education at Al-Achyar Boarding School, with particular emphasis on its curriculum. Additionally, the study will identify the key enablers and barriers affecting the execution of sustainable education and propose policy recommendations to enhance the overall effectiveness of sustainable education within faith-based boarding schools.

METHOD

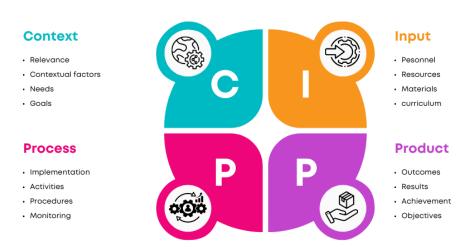
This study focuses on the critical issue of sustainable education in Islamic boarding schools, selected for its growing importance in addressing global sustainability challenges while reflecting unique cultural and religious contexts. Islamic boarding schools play a vital role in shaping ethical and environmental awareness, making them significant sites for studying sustainable education. Previous research on sustainability in Islamic education has been limited to theoretical discussions or surface-level evaluations, ¹¹ creating a pressing need for deeper, context-specific investigations. This study seeks to fill this gap by exploring how sustainable education is implemented in a practical, faith-based educational setting.

A qualitative research approach was adopted, employing a case study method to provide an in-depth analysis of Al-Achyar Islamic Boarding School. This approach enables a comprehensive exploration of sustainable education's implementation within this institution. The study utilized data from multiple sources, including interviews with educators, administrators, and students, direct observations, and document analysis. These data sources were chosen for their ability to provide rich, detailed insights into the program's contextual and operational dynamics. Participants were selected using purposive sampling to ensure their relevance and contribution to the study's objectives.

Data collection employed several methods, including semi-structured interviews to gather personal insights and experiences, field observations to capture real-time practices, and document reviews to analyze institutional policies and curricula.

Figure 1. CIPP Model Evaluation¹²

CIPP Model Evaluation



¹¹ M W R Al-Hiti, "Reliance and Its Significance in the Holy Qur'an: An Objective Study," Dirasat: Human and Social Sciences 50, no. 6 (2023): 72-82, https://doi.org/10.35516/hum.v50i6.7042.

¹² Adapted from Daniel L Stufflebeam, "The CIPP Model for Evaluation," in Evaluation Models: Viewpoints on Educational and Human Services Evaluation (Dordrecht: Springer Netherlands, 2000), 279.

Data analysis followed the CIPP model framework, developed in the 1960s, ¹³ with each component—Context, Input, Process, and Product—examined systematically. The context evaluation identified program relevance and alignment with sustainability goals, input evaluation assessed resources and their adequacy, process evaluation examined program execution and consistency, and product evaluation reviewed the program's outcomes. This multifaceted analysis ensures a nuanced understanding of sustainable education implementation.

RESULT AND DISCUSSION

Sustainability has become an imperative in addressing the myriad environmental and social challenges of our time. Education, in this context, plays a pivotal role in embedding the values of sustainability to ensure the earth remains preserved for future generations. As Siburian¹⁴ rightly asserts, sustainable education must be the cornerstone of overall sustainable development. While obstacles such as accessibility, quality standards, and cultural sustainability remain,¹⁵ the drive to enhance sustainable education continues to grow stronger. Nelson Hasibuan et al. advocate for the transformation of character education;¹⁶ Milasari and Nugraheni proposes the integration of conservation and technology;¹⁷ and Fadilah et al. emphasize the strengthening of digital literacy.¹⁸ Despite differing approaches, these strategies converge on a singular goal: realizing sustainable education for the betterment of future generations.

For this reason, educational institutions of all levels and categories are strongly encouraged to contribute to fostering critical awareness of environmental and social issues among their students. ¹⁹ Among these institutions are boarding schools, which hold immense potential for implementing sustainable education. This potential stems from the fact that, within the boarding school model, students not only engage in classroom learning but also live in dormitories, participate in activities, and interact intensively within a community. Nevertheless, challenges such as ideological clarity, overlapping responsibilities, and curriculum guidelines remain hurdles that need to be resolved. ²⁰

More precisely, boarding schools such as *pesantren* hold a vast intellectual tradition within Islam that is deeply connected to environmental sustainability and human welfare. ²¹ This intellectual richness, when leveraged to advance sustainable education, can be extremely impactful, whether through the curriculum or the various activities within the dormitory

¹³ Stufflebeam Daniel L and Guili Zhang, *The CIPP Evaluation Model: How to Evaluate for Improvement and Accountability* (The Guilford Press, 2017). V.

¹⁴ G Siburian, "Analisis Konseptual Landasan Pendidikan Dalam Konteks Pembangunan Pendidikan Berkelanjutan," *Jurnal Pendidikan Tambusai* 8, no. 1 (2024): 4935.

¹⁵ Dewi Anggraini and Siwi Nugraheni, "Menuju Pendidikan Berkelanjutan: Implementasi Tujuan Pembangunan Berkelanjutan (SDGs) Dalam Mewujudkan Pendidikan Berkualitas Di Indonesia" 1, no. 3 (2024).

¹⁶ Nelson Hasibuan, Uswatun Khasanah, and Shofia Nurun Alanur, *Transformasi Pendidikan Karakter: Menuju Sdm Unggul Dan Berkelanjutan* (Sukoharjo: Tahta Media, 2024), 20.

¹⁷ Devi Milasari and Nursiwi Nugraheni, "Integrasi Pendidikan Konservasi Dan Teknologi Untuk Mewujudkan Pendidikan Inklusif Dan Berkualitas Dalam Pencapaian SDGs," *Jurnal Penelitian Pendidikan Indonesia (JPPI)* vo. 1, no. 3 (2024), 119-125

¹⁸ Azmi Difa Fadilah, Nisrina Tiara Adinda, and Ichsan Fauzi Rahman, "Mewujudkan Pendidikan Inklusif Dan Berkelanjutan Dengan Literasi Digital: Peran Teknologi Di Era Sdgs 2030," *Merdeka: Jurnal Ilmiah Multidisiplin* vol.1, no. 5 (2024): 106–21.

¹⁹ A Paucar-Caceres et al., "Using Soft Systems Methodology to Align Community Projects with Sustainability Development in Higher Education Stakeholders' Networks in a Brazilian University," *Systems Research and Behavioral Science* 39, no. 4 (2022): 750–64, https://doi.org/10.1002/sres.2818.

²⁰ A. Manaf, "Rekonstruksi Pendidikan Boarding School Di Indonesia," *Ad-Da'wah* 20, no. 1 (2022): 51.

²¹ Adib Rifqi Setiawan, "Financial Literacy Education Through Fiqh Mu'āmalāt Learning Based on Kitab Kuning" (Center for Open Science, 2020), https://doi.org/10.31237/osf.io/8pehj.

environment, as noted by Asdlori.²² Several dimensions of sustainable education have been explored. For instance, Ngabekti et al. identified five key dimensions: environmental, economic, socio-cultural, educational, and spiritual.²³ On the other hand, Hendrarini and Apriliana found only three dimensions (socio-cultural, environmental, and economic) in the pesantren they researched.²⁴ Similarly, Bahri and Baharun, in their study of Nurul Qodim Pesantren, outlined three core areas: education, social engagement, and Islamic outreach (dakwah).²⁵

In contrast to the findings of earlier studies, the author of this research discovered that sustainable education can be effectively integrated within the curriculum, as demonstrated at Al Achyar Islamic Boarding School. Upon closer examination, it was found that sustainable education is incorporated into three key dimensions of the curriculum: intraarticular, extracurricular, and co-curricular.²⁶

Intracurricular

Within the educational curriculum structure, 27 the central axis of learning activities is found in intracurricular.²⁸ Intracurricular consists of instructional activities directly linked to various subjects, with systematically allocated time designed to achieve specific objectives.²⁹ Most intracurricular activities take place in the classroom, employing a range of methods and strategies aimed at cultivating students' personal growth.³⁰

At Al Achyar Boarding School, religious education is given considerable instructional time. Besides being part of the formal school hours, religious lessons are also delivered during the madrasah diniyyah sessions.³¹ As a result, religious education plays a crucial role in promoting sustainable education. Through these lessons, students learn about the duty to protect the environment as an integral part of a Muslim's responsibility. This is evident in the strengthening of various topics related to sustainable education, such as Kulliyatul Khamsah grounded in *Hifdhu al Bi'ah*, religious tolerance,³² and the obligation to preserve human life. By incorporating sustainable education into the intracurricular curriculum, the grand vision of

²² Asdlori, "Pendidikan Islam Sebagai Pilar Pembangunan Berkelanjutan."

²³ Ngabekti et al., "Pendidikan Untuk Pembangunan Berkelanjutan Di Pondok Pesantren."

²⁴ Apriliana, "Pesantren Bilingual Berbasis Karakter Salaf: Sebuah Prototype Pendidikan Berkelanjutan pada Era Global."

²⁵ Moh Samsul Bahri and Hasan Baharun, "Sustainability Education in Pesantren; Understanding the Role of Shadow Organizations in Achieving Sustainable Development," Journal of Research in Educational Management 2, no. 2 (2023): 60-71.

²⁶ U Permana and A Rahmawati, "Designing a Citizenship Education Curriculum Based on the Concept of Merdeka Belajar Kampus Merdeka (MBKM) in Higher Education," Scaffolding: Jurnal ..., 2023, https://ejournal.insuriponorogo.ac.id/index.php/scaffolding/article/view/2627.

²⁷ A L Brown, "Transforming Schools into Communities of Thinking and Learning about Serious Matters," American Psychologist 52, no. 4 (1997): 399-413, https://doi.org/10.1037/0003-066X.52.4.399.

²⁸ Mutia Insani, Wagino Hamid Hamdani, and Asep Sopian, "Upaya Peningkatan Maharah Kalam Melalui Kegiatan Intrakurikuler Muhadharah," An Nabighoh: Jurnal Pendidikan Dan Pembelajaran Bahasa Arab (IAIN Metro Lampung, 2021), https://doi.org/10.32332/an-nabighoh.v23i1.2281.

²⁹ Khusna Shilviana and Tasman Hamami, "Pengembangan Kegiatan Kokurikuler dan Ekstrakurikuler," PALAPA 8, no. 1 (May 17, 2020): 159–77, https://doi.org/10.36088/palapa.v8i1.705.

³⁰ Lisa'diyah Ma'rifataini, "Pengaruh Kegiatan Intrakurikuler dan Ekstrakurikuler Terhadap Pembentukan Karakter Siswa Sekolah Menengah Atas Negeri (SMAN) 09 Bandar Lampung," EDUKASI: Jurnal Penelitian Pendidikan Agama dan Keagamaan 14, no. 2 (March 2, 2017), https://doi.org/10.32729/edukasi.v14i2.16.

³¹ Moh Syakur and Hasmi Hashona, "Analysis of the Use of the Miftah Lil Ulum Method in Learning the Kitab Kuning for Children," TA'DIBUNA: Jurnal Pendidikan Agama Islam (Universitas Islam Sultan Agung, 2022), https://doi.org/10.30659/jpai.5.2.138-145.

³² Siti Nur Halimah and Shalahuddin Shalahuddin, "Penanaman Nilai Nilai Pendidikan Islam Multikultural Melalui Kajian Kitab Kuning Dalam Membangun Keharmonisan Sosial Santri," Al-Miskawaih: Journal of Science (Center for Religious Studies and Social Empowerment Foundation, https://doi.org/10.56436/mijose.v2i1.272.

fostering environmental and social consciousness in the students of Al Achyar Boarding School becomes more achievable.

Extracurricular

Sustainable education at Al-Achyar Boarding School is also implemented through extracurricular activities, ³³ notably through the Smart Cooking Class program. This initiative focuses on honing culinary skills and fostering creativity in the kitchen. Embedded within the program are life skills development, encompassing independence, time management, problem-solving, nutritional awareness, and much more.

Figure 2. Sustainable Extracurricular Program



This extracurricular activity has been adapted and specifically designed to incorporate sustainability concepts into every aspect of its implementation.³⁴ This is evident in practices such as the use of environmentally friendly, locally sourced ingredients, minimizing food waste, and transforming leftovers into compost. Traditional recipes made from natural ingredients are also preserved, ensuring that future generations remain connected to the country's rich culinary heritage. As Serkan Yigit has observed, cooking classes can serve as powerful tools for cultural promotion.³⁵ In this way, the extracurricular program aims to become a model of education that integrates cognitive and psychomotor skills while contributing to the achievement of sustainable development goals.³⁶

Co-Curricular

Beyond its integration into intracurricular and extracurricular activities, sustainable education is also embedded within co-curricular programs at Al Achyar. These co-curricular activities are designed to provide out-of-class experiences that support students in achieving

³³ Ulfi Sayyidatul Fitria, Fachruddin Azmi, and Nurika Khalila Daulay, "The Implementation of Character Education Management in Madrasah," *Jurnal Basicedu* 6, no. 4 (May 7, 2022): 5557–68, https://doi.org/10.31004/basicedu.v6i4.3028.

³⁴ M García-Feijoo, A Eizaguirre, and A Rica-Aspiunza, "Systematic Review of Sustainable-Development-Goal Deployment in Business Schools," *Sustainability (Switzerland)* 12, no. 1 (2020), https://doi.org/10.3390/SU12010440.

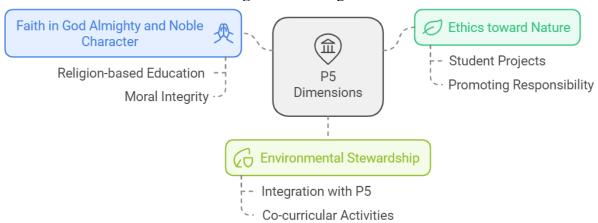
³⁵ Serkan Yiğit, "Is It Possible to Get to Know a Culture through Cooking Classes? Tourists Experiences of Cooking Classes in İstanbul," *International Journal of Gastronomy and Food Science* 28 (2022): 100527, https://doi.org/10.1016/j.ijgfs.2022.100527.

³⁶ Syamsul Bahri, Wati Oviana, and Soga Billiyan, "Peningkatan Keterampilan Proses Sains Siswa Melalui Penerapan Pendekatan Keterampilan Proses Pada Mata Pelajaran IPA Di Kelas V MI," *Kalam: Jurnal Agama Dan Sosial Humaniora* (Lembaga Studi Agama dan Masyarakat Aceh, 2021), https://doi.org/10.47574/kalam.v8i2.95.

meaningful learning, which is seamlessly integrated with their academic pursuits.³⁷ Cocurricular activities, therefore, play a critical role in helping students improve their academic performance. As highlighted by Rahman et al., 38 there is a strong positive correlation between co-curricular involvement and academic success.³⁹ Hence, a well-organized co-curricular program can yield substantial positive outcomes for students.

At Al-Achyar Boarding School, co-curricular activities are aligned with the Kurikulum Merdeka framework, 40 particularly through the Proyek Penguatan Profil Pelajar Pancasila (P5). This initiative aims to equip students with the traits of lifelong learners, fostering competence, intelligence, and character grounded in the philosophy of Pancasila. 41 Such outcomes are realized through P5's holistic, contextual, student-centered, and exploratory approach.42

Figure 3. P5 Program



In practice, P5 is composed of various dimensions, elements, and sub-elements. One dimension that closely aligns with the vision of sustainable education is the dimension of Faith in God Almighty and Noble Character. 43 A key element within this dimension is ethics toward nature, where students are encouraged to undertake projects that promote environmentally responsible behavior.⁴⁴ This dimension is seamlessly in sync with the vision of sustainable education, as it unites religion-based environmental education with the co-curricular Proyek

³⁷ Linda Suskie, "Introduction to Measuring Co-Curricular Learning," in New Directions for Institutional Research (San Francisco: Wiley, 2015), 6.

³⁸ Shaikh Rezwan Rahman et al., "Effects of Co-Curricular Activities on Student's Academic Performance by Learning," Current Research inBehavioral Sciences https://doi.org/10.1016/j.crbeha.2021.100057.

³⁹ S S Luthar, N L Kumar, and N Zillmer, "High-Achieving Schools Connote Risks for Adolescents: Problems Documented, Processes Implicated, and Directions for Interventions," American Psychologist 75, no. 7 (2020): 983–95, https://doi.org/10.1037/amp0000556.

⁴⁰ R Mulyono, "Analisis Implementasi Kurikulum Merdeka Belajar Untuk Mempersiapkan Pembelajaran Abad Didaktik: Jurnal Ilmiah PGSDSTKIP http://journal.stkipsubang.ac.id/index.php/didaktik/article/view/392.

⁴¹ Ahmad Muktamar, Hendrawan Yusri, and Besse Reski Amalia, "Transformasi Pendidikan: Menyelami Penerapan Proyek P5 untuk Membentuk Karakter Siswa," Journal Of International Multidisciplinary Research 2, no. 2 (2024): 3.

⁴² Badan Standar, Kurikulum, dan Asesmen Pendidikan, *Panduan Pengembangan Projek Penguatan Profil* Pelajar Pancasila (Jakarta: Kemendikbudristek, 2022). 8.

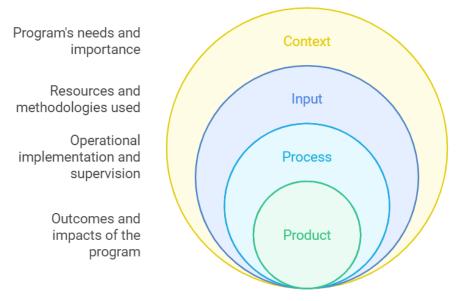
⁴³ Ach Khusnan, "Efektivitas Metode Diskusi Dalam Pembelajaran Kitab Kuning Terhadap Kepribadian Santri Di Pondok Pesantren," FATAWA: Jurnal Pendidikan Agama Islam (Sekolah Tinggi Agama Islam (STAI) Al-Azhar Menganti Gresik, 2021), https://doi.org/10.37812/fatawa.v1i1.228.

⁴⁴ Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, "Keputusan Kepala Badan Standar, Kurikulum, Dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi Nomor 009/H/KR/2022 Tentang Dimensi, Elemen, Dan Subelemen Profil Pelajar Pancasila Pada Kurikulum Merdeka" (Kemendikbudristek, 2022), 2

Penguatan Profil Pelajar Pancasila (P5), reinforcing the importance of environmental stewardship as an integral aspect of students' faith and moral integrity.

Evaluation Through the CIPP Model

Figure 4. CIPP Model Evaluation of Al Achyar Boarding School



This section evaluates the sustainable education program Al-Achyar Boarding School offers using the CIPP Model: Context, Input, Process, and Product. This evaluation aims to provide an in-depth review of the program implementation and its outcomes in great detail, focusing on how it integrates sustainability principles into all aspects of education offered by the institution. The CIPP model provides a systematic approach through evaluation against four critical dimensions: context, which identifies the program's needs and importance; inputs, covering resources and methodologies used to address its objectives; process, which maps the operational implementation and supervision of the program; and finally, product in terms of identifiable outcomes and impacts of the program. This report, by the analysis of these components, will determine the strengths, weaknesses, and areas of development in the program.

Such an analysis of the context will clarify how essential and coherent the program is concerning the school's objectives. Evaluation of input will determine the adequacy of resources and planning, and while reviewing the process, it will focus on how effective the program's implementation has been. Conclusion: The program evaluation will address how the program has achieved its stated goals, emphasizing its role in integrating sustainability into educational systems. Through this in-depth evaluation, the study hopes to generate meaningful knowledge on the successes of the program and challenges that have been faced so that there can be an honest perspective of the efforts for sustainable education at Al-Achyar Boarding School.

Context

Sustainable education has become a crucial response to global challenges. Al-Achyar Boarding School addresses this need by providing a holistic educational approach that combines academic excellence with the integration of sustainability values. As an Islamic boarding institution, Al-Achyar embraces its role in cultivating environmental consciousness and social responsibility in its students, preparing them to contribute to a sustainable future.

The unique environment of boarding schools, such as Al-Achyar, offers significant advantages in shaping well-rounded individuals capable of contributing to a harmonious and

⁴⁵ Stufflebeam, "The CIPP Model for Evaluation."

sustainable society. The school effectively utilizes its boarding system to promote active student participation in activities that incorporate sustainability principles. These activities are seamlessly integrated into the academic curriculum, extracurricular programs, and co-curricular initiatives, allowing students to experience and practice sustainability hands-only.

By balancing intellectual development and values-based education, Al-Achyar Boarding School prepares its students to become future leaders with a strong commitment to environmental stewardship and social equity.⁴⁶ This model serves as a testament to how boarding institutions can play a pivotal role in addressing the pressing demand for sustainable education.

Input

An in-depth analysis of the inputs is necessary to successfully realize the goals of the sustainable education program at Al-Achyar Boarding School. The core constituent of Al-Achyar is its curriculum, where religious education is intertwined with sustainability principles. The blending has been well done, as no significant problems were found in integrating sustainability into the curriculum.

However, the ability of teachers to align teaching resources with sustainability principles remains a significant challenge. The teaching staff must demonstrate competence in infusing their practices with sustainability themes. This inconsistency is a substantial impediment to successfully implementing the program's goals.

In their stead, Al-Achyar Boarding School should focus on programs aimed at enhancing the capacities of its teachers. Training and workshops that pertain to enhancing their capacities in sustainable education are of the utmost importance. These forms of professional development will help arm teachers with the skills needed to incorporate sustainability into their practices, thus ensuring that the program's goals are met accordingly.

The institution can guide investment in the professional development of educators to develop a cohesive and influential methodology for sustainability education. This will not only increase the competencies of its teaching personnel but also improve the quality of the educational experience at Al-Achyar, in line with the general goals of sustainable education.

Process

The Sustainable Education program at Al Achyar Boarding School has been well implemented; it has adhered very closely to its designed framework. This program incorporates sustainability into three critical curriculum dimensions: intracurricular, extracurricular, and cocurricular. Under the curricular dimension, for example, the principles of sustainability are seamlessly integrated into religious education, nurturing the students' understanding of sustainability within Islam's teachings.

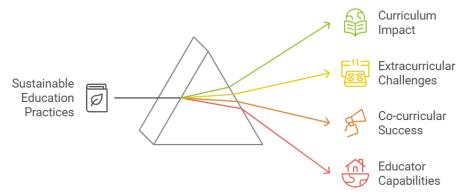
However, the implementation of the program faces issues of its own. Among the chief concerns is the difference in teachers' competencies in integrating values of sustainability into their teaching tools. The diversity has resulted in inconsistencies in integrating principles of sustainability throughout the curriculum. The full potential of the program is, therefore, yet to be realized vis-à-vis the program's objectives, and the areas need to be addressed to ensure that the goals set are achieved.

This has also been underlined by the need for focused interventions, such as educator training and resource development, to enhance educators' understanding of and support in using sustainability principles. Addressing these barriers will help the program ensure that sustainability is integrated well within the education framework and, therefore, impacts students with a deeper and more consistent understanding.

Product

Figure 5. Unpacking Sustainable Education at Al-Achyar

⁴⁶ M. Sulthon and M. Khusnuridlo, Manajemen Pondok Pesantren Dalam Perspektif Global (Yogyakarta: Laksbang, 2006).



Adopting sustainable education practices at Al-Achyar Boarding School has yielded significant outcomes. Regarding curriculum, religious education—which commands the lion's share of instructional hours—has played an instrumental role in expanding students' awareness of environmental issues. On the other hand, the extracurricular program for environmental conservation through the innovative cooking class has not achieved its maximum utility. This is primarily attributed to the lack of eco-friendly cooking facilities, which hinders the program's overall impact. Most of the activities done about co-curricular areas, including those designed to develop the Pancasila Student Profile (P5), have been relatively effective in instilling an environmental ethic in students. The program fosters environmental consciousness and responsible behavior, stressing their harmoniousness with spiritual values and moral imperatives. However, this program could achieve much more if educators possess the capabilities and continuous competencies to integrate principles of sustainable education into their practices.

These shortcomings in educator preparedness and infrastructure would, in particular, alleviate and diversify the programs associated with the Pancasila student profile for greater effectiveness.

Therefore, the program would be able to overcome some of these challenges and scale up its impact by engaging students in active participation in creative activities aimed at sustainability and character-building in the environment. These measures are necessary for promoting the incorporation of sustainable education and ensuring its long-lasting benefits for students and the entire educational community.

CONCLUSION

This research uncovers that sustainable education at Al-Achyar Islamic Boarding School is incorporated across three key dimensions of the curriculum: curricular, extracurricular, and co-curricular. In the curricular aspect, sustainability is embedded through environment-based religious education, while in extracurricular activities, it is implemented via the Smart Cooking Class, and in the co-curricular domain, it is delivered through the Pancasila Student Profile Strengthening Project (P5). The evaluation using the CIPP Model reveals that although Al-Achyar demonstrates commendable progress in addressing sustainability concerns, there are still several challenges to overcome. One prominent issue is the inconsistency in teacher competency when it comes to integrating sustainability values into different subjects. Furthermore, the application of sustainable education remains somewhat narrow, focusing primarily on religious subjects within the curricular framework, the Smart Cooking Class in extracurricular activities, and a single dimension of P5—namely, ethics towards the environment.

This study holds theoretical implications for the discourse on sustainable education within Islamic educational institutions, particularly in boarding schools and *pesantren*. From a practical perspective, it offers critical recommendations for similar institutions aiming to

expand their approach to sustainable education. Policies should be geared toward enhancing teacher competencies to ensure that sustainability principles are woven into a broader range of subjects, not solely religious education. Furthermore, extracurricular programs need to evolve, offering a wider variety of activities, while co-curricular dimensions like P5 should take a more comprehensive approach to addressing multiple facets of sustainability. Tailored training for educators in applying sustainability across the educational spectrum is vital to reinforcing the program's effectiveness.

The main limitation of this research lies in the narrow scope of sustainable education implementation, focusing solely on a single educational institution. The generalizability of the findings to institutions with different backgrounds requires further exploration through subsequent studies. Moreover, the research evaluates sustainability within only three dimensions of the curriculum, calling for a more expansive analysis to assess how sustainability is embedded across all facets of school life. Future studies should aim to encompass a wider range of schools in varied contexts and investigate the long-term effects of sustainable education on students' environmental awareness and behavior.

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