



Effective Learning Strategies in Increasing Students Environmental Awareness at Vocational School Tri Bhakti At Taqwa

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ABSTRACT

The aim of this research is to evaluate Islamic Religious Education (PAI) learning methods that are effective in increasing students' awareness of the environment in class X of Tri Bhakti At Taqwa Vocational School. It is very important to instill environmental awareness from an early age in this increasingly complex era of globalization, especially through education based on religious values. This research was conducted using a qualitative approach using observation, interviews and documentation as data collection methods. The research results show that PAI learning strategies that combine religious values with environmental issues can increase students' awareness of the importance of preserving the environment. Students not only gain religious knowledge but are also actively involved in environmental preservation through discussions, simulations and project-based learning activities that focus on the environment. Therefore, effective PAI learning strategies are very important to develop students' characteristics that care about the environment.

Keywords: *Environmental Awareness, Effective Learning Strategies*

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INTRODUCTION

Islamic Religious Education (PAI) is very important for building students' character and personality, not only in moral and spiritual terms, but also in terms of social understanding and their living environment. Awareness of the importance of maintaining environmental sustainability has increased amidst increasingly complex environmental problems, such as pollution, natural damage and climate change. As a type of character education, religious education has great potential to instill the values of caring for the environment through a holistic approach and based on Islamic religious teachings. (P et al., 2023)

Effective learning strategies are one way to increase students' awareness of the environment. To achieve this goal, PAI learning that combines religious concepts with environmental issues can be an appropriate method. This is because there are many values taught in Islamic teachings about human responsibility towards nature, such as maintaining natural balance, avoiding environmental damage, and loving the Earth, which was given by God. (Warsita, 2018)

However, there are still many challenges faced in the field when implementing effective PAI learning strategies to increase students' environmental awareness. Therefore, research needs to be carried out to find out various PAI learning approaches and strategies that can be implemented optimally in the school environment, especially

at Tri Bhakti At Taqwa Vocational School. The aim of this research is to increase the environmental awareness of class X students. (Umkabu, 2022)

The researcher also read previous research (thesis) regarding environmental awareness of Tri Bhakti Attaqwa Vocational School students in class X, the aim was to make it easier for researchers to understand literacy among researchers. The relevant thesis was written by Faisal Arif Rahmadani with the title efforts to raise public awareness in maintaining environmental cleanliness through waste management. This research design is a data collection technique with observation and in-depth interviews as the main data and data sources. The results of this research can be said to have succeeded in increasing public awareness in maintaining environmental cleanliness. What this research has in common with researchers is that they both use environmental variables, they both strive for awareness among others, while the difference is the research location and place indicators. Coupled with a thesis written by Munawir, Masnida & Mahbub with the title youth empowerment in efforts to increase public awareness in waste management. This research was attended by the community, especially PKK mothers and housewives. What this research has in common with researchers is that they both use the variable of increasing environmental awareness, while the differences are the variables of youth empowerment, data collection and research location.

This research aims to analyze and evaluate effective PAI learning strategies to increase students' environmental awareness. It is hoped that this research will find a learning model that can integrate religious values with environmental issues in a deep and practical way. The results can be a solution to develop students who care more about environmental sustainability.

METHOD

To study Islamic Religious Education (PAI) learning strategies that are effective in increasing the environmental awareness of class X students at Tri Bhakti At Taqwa Vocational School, this research uses a descriptive qualitative approach. The aim of this approach is to gain a deeper understanding of the phenomenon through direct interaction with the research subjects. (Fadli, 2021)

This research was conducted at Tri Bhakti At Taqwa Vocational School, which was chosen because of the PAI learning context and efforts to increase students' environmental awareness. The research took place from February to April 2025. The research subjects were class X PAI teachers who implemented learning strategies and class X students of Tri Bhakti At Taqwa Vocational School.

Data Collection Techniques Interviews were conducted with PAI teachers, students and school principals to obtain information about the learning strategies used and how these strategies had an impact on students' environmental awareness. Observations were made by observing PAI learning in class X, especially how the strategy was implemented in relation to environmental awareness values. In addition, observations were made of student activities. Collect data that supports PAI learning strategies, such as learning tools, syllabus, RPP (Learning Implementation Plan), and other related documents. (Yusra et al., 2021)

Analysis Methods collected from observations, documentation, and interviews are summarized, selected, and focused on the research topic. To make it easier to draw conclusions, the reduced data is presented in the form of a matrix, narrative, or diagram. Main results, patterns, and relationships from the analyzed data are used to

draw conclusions. Comparable data from various sources and methods are used to verify. (Martono, 2010)

Collect data from various sources (teachers, students, principals) and various methods (observation, interviews, documentation). Confirm findings and interview results with informants to ensure that the data is correct. Observe thoroughly and in depth to ensure that the research results are correct and reliable. Creating research designs and data collection tools gives research permission to schools to conduct interviews, observations and documentation process and analyze data obtained in the field and create research reports.(Makbul, 2021)

By using the PAI learning approach, teachers can increase students' environmental awareness. Environmental values are included in students' responses to PAI learning. There are many factors that support and hinder the implementation of the PAI approach. (Zulkarnain et al., 2021)

RESULTS

By using the PAI learning approach, teachers can increase students' environmental awareness. Environmental values are included in students' responses to PAI learning. There are many factors that support and hinder the implementation of the PAI approach. (Sahlan, 2011)

Results of Interview with the Principal of Tri Bhakti Attaqwa Vocational High School on Wednesday 12 February 2025



NO	QUESTION	ANSWER
1	What obstacles are experienced in implement learning in class?	<p>Maybe it's related to my learning which lacks appeal to children. So the children get bored if they just listen to my lessons. Sometimes it even makes noise. And there are problems with learning media too, because I still only use worksheet books and then blackboards so the children are not controlled, instead of listening, they talk to themselves. The first 10 minutes were still safe but after the second 10 minutes the children started to lose focus on the lesson I was explaining in front of the class.</p>
2	How can project-based learning methods be used to teach students about their responsibilities towards the environment?	<p>The Project Based Learning Method is very effective in instilling environmental awareness in students through an Islamic approach.</p> <ul style="list-style-type: none"> ● Students become more active and responsible for their environment. ● Learning through real practice creates deeper understanding. ● Applying Islamic values concretely.
3	How is PAI learning based on real action?	<p>Real action-based PAI learning is a very effective approach in instilling Islamic values because students not only learn about Islam, but also practice it in everyday life.</p> <ul style="list-style-type: none"> ● Through direct experience, students understand the meaning of worship, morals and social matters more deeply.
4	Has Islamic religious education never touched on students' awareness of the environment? What's the reason?	<p>Of course, environmental awareness is very important.</p>
5	What methods are often used	<p>The methods that are often used are of</p>

	during learning? How do students respond to this learning?	course very adaptable to situations and conditions. The student response was certainly good and conducive.

Results of Interviews with Islamic Religious Education Subject Teachers at Tri Bhakti Attaqwa Vocational School on Wednesday 12 February 2025



N O	QUESTION	ANSWER
1	What obstacles do you experience in implementing classroom learning?	Maybe it's related to my learning which lacks appeal to children. So the children get bored if they just listen to my lessons. Sometimes it even makes noise. And there are problems with learning media too, because I still only use worksheet books and then blackboards so the children are not controlled, instead of listening, they talk to themselves. The first 10 minutes were still safe but after the second 10 minutes the children started to lose focus on the lesson I was explaining in front of the class.
2	How can project-based learning methods be used to teach students about their responsibilities towards the environment?	The Project Based Learning Method is very effective in instilling environmental awareness in students through an Islamic approach. <ul style="list-style-type: none"> ● Students become more active and responsible for their environment. ● Learning through real practice creates deeper understanding. ● Applying Islamic values concretely.
3	How is PAI learning based on real action?	Real action-based PAI learning is a very effective approach in instilling Islamic values because students not only learn about Islam, but also practice it in everyday life. <ul style="list-style-type: none"> ● Through direct experience, students understand the meaning of worship, morals and social matters more

		deeply.
4	Has Islamic religious education ever touched on students' awareness of the environment? What's the reason?	Of course, environmental awareness is very important.
5	What methods are often used during learning? How do students respond to this learning?	The methods that are often used are of course very adaptable to situations and conditions. The student response was certainly good and conducive.

Documentation of Effective PAI Learning Strategies in Increasing Students' Environmental Awareness in Class X Tri Bhakti Attaqwa Vocational School on Wednesday 12 February 2025

PROFILE SCHOOL

A. School Profile

1. School name : SMK Tri Bhakti Attaqwa
2. NPSN : 69955051
3. NSS : 402120711072
4. Address : Rama Puja Raman Utara Lam-Tim
5. RT : 10
6. RW : 4
7. Hamlet name : Hamlet II
8. Code Post : 34371
9. Star : -4.9079
10. Longitude : 105.4236
11. Establishment Decree : 420/1484.a/11.SK.01/2016
12. Foundation Decree : 62/YASPI-PPTBA/RP/XII/2016
13. Year Founded/Operated : 2016
14. Decree date : 2016-09-21
15. Foundation Name : Tri Bhakti Attaqwa Islamic Boarding School Foundation
16. Skills Program/Competency : Computer and Network Engineering
: Visual communication design
17. Land/Building Ownership : Foundation
 - a. Land Area : 10.450.00 m²

B. Vision and mission

a. Everyone

Tri Bhakti Attaqwa Vocational School has a vision that can be measured and achieved in the future as a basis and reference in developing and managing the school to achieve the school's ideals and objectives, namely: To become a superior, competitive and noble vocational school.

b. Mission

Meanwhile, to support the realization of the school's ideals and goals, Tri Bhakti Attaqwa Vocational School has a mission as an action plan that will be implemented in the development and management of the school, namely:

- 1) Develop psychomotor potential/skills in accordance with the expertise program
- 2) Developing an independent attitude and entrepreneurial spirit.
- 3) Fostering and cultivating interests, talents, creativity and careers.
- 4) Organizing personal and religious guidance and counseling.
- 5) Developing character through example and habit.

C. In accordance School Goals

a. General School Goals

- 1) Developing school residents to have motivation to improve school quality.
- 2) Equip students with competencies that are in accordance with the selected skill competencies.
- 3) Preparing students to be persistent and tenacious in competition, able to choose a career, adapt to the work environment, and develop a professional attitude in the chosen skill competency.
- 4) Preparing students to become productive humans, able to fill job vacancies in the world of business and industry, or work independently.

b. School Goals 2023-2024

1. Produce KTSP (School curriculum, Syllabus, RPP, assessment system and determination of KKM) in accordance with school conditions and environment.
2. Involving educators and education personnel in various training/training/workshops/MGMP to increase professionalism.
3. Achievement of learning process standards which include implementing learning using the CTL method, a thorough and individual and fun learning approach.
4. Increase awareness of all school members regarding the functions and responsibilities that refer to the rules, code of ethics and school regulations.
5. Increase collaboration with industry and/or other institutions to support and support school programs.
6. Achievement in academic and non-academic fields at local, regional or national levels.
7. Developing various activities in the learning process in the classroom that are oriented towards competitive and competitive processes.
8. Increasing collaboration with industry that is relevant to vocational programs as skills-based education.
9. Organizing various social activities that are part of character education.
10. Organizing environmentally friendly education that is oriented towards increasing cleanliness and greening the school environment so as to create a feeling of safety, comfort and coolness.
11. Improving education that instills virtuous national values and nationalism.
12. Collaborating with other institutions and the media in publicizing school programs to achieve school goals.
13. Utilize and maintain facilities as much as possible in the learning process.
14. Producing competent and competitive graduates who have good morals and morals.

c. 5 Year School Goals

2. Preparing students who are productive, able to work independently and can be absorbed by DU/DI according to their competencies.

3. Providing training to students to be able to be creative, tenacious and persistent in competing, able to adapt to the work environment and able to develop a professional attitude according to their competencies.
4. Equipping students with science, technology, art and entrepreneurial insight so that they are able to develop themselves in the future both independently and continuing to higher levels of education.
5. Improving the competency of teachers and education personnel through upgrading and training organized by the government, private sector or other institutions.
6. Improving facilities and infrastructure to facilitate good and quality learning to become a superior and quality school that is environmentally conscious and has character.
7. Increasing collaboration with other institutions or the industrial world in implementing school programs.
8. Improving academic and non-academic achievements at local, regional and national levels.
9. Has a curriculum that is based on and integrated with industry.

d. Goals of Vocational Secondary Education

The aim of National Education is to develop the potential of students to become human beings who believe in and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens.

Vocational high schools as part of Secondary Education in the National Education System aim :

- a. Prepare students to enter the workforce and develop professional attitudes.
- b. Prepare students to be able to choose a career, be competent and be able to develop themselves.
- c. Preparing students to become independent middle-level workers and/or to fill the needs of the world of work.
- d. Preparing graduates to become productive, adaptive and creative citizens
- e. The aim of Vocational Secondary Education is to improve intelligence, knowledge, personality, noble morals and skills to live independently and pursue further vocational education.

STUDENT DATA FOR CLASS X STUDENTS OF TRI BHAKTI ATTAQWA VOCATIONAL SCHOOL

NO	NO
1	Adi Saputra
2	Ahmad Khanif
3	Alifatul Maula
4	Arif Gunawan
5	Bayu Anggara Pratama
6	Berlin Mandala Putra
7	Destama Candra
8	Dhea Agustina

9	Dimas Aji Satria
10	Dimas Dwi Saputra
11	In Muniroh
12	Dwi Mutiara Sari
13	Erina Rahmadani
14	Ihsan Julianda Putra
15	Esha Frenscinee Kumalasari
16	Khoirul Irsad
17	Klarista Diah Safitri
18	Meli Aisah
19	Mello Fuji Tri Yana
20	Miftahul Huda
21	Muhamad Rizqi Nur Faiz
22	Muhammad Faiz Pratama
23	The Ultimate Panca Mugi
24	Radit Cahya Ananda
25	Reza Fadillah Akbar
26	Shalma Latifa Putri
27	Syafa Chairunnissa
28	Tri Wahyudi
29	Vicky Surgery'ulya
30	Vina Dhurrotun Nafissah

The research results show that Islamic Religious Education (PAI) teachers at Tri Bhakti At Taqwa Vocational School have implemented various effective learning strategies to increase students' environmental awareness. One approach used is **Contextual Learning**, namely by linking PAI teaching materials to actual environmental issues. For example, when discussing the role of humans as *caliph* on earth, the teacher explains that preserving the environment is part of the worship and spiritual responsibility of Muslims (Arcanita et al., 2024). This is reinforced by the results of interviews with PAI teachers, who stated that "*Real action-based learning is a very effective approach because students not only learn, but also practice Islamic teachings in everyday life.*".

Apart from that, the Project-Based Learning (PjBL) approach is also used as the main strategy. Teachers assign students to carry out real activities related to the environment, such as environmental care campaigns based on Islamic values, tree planting activities, and cleaning the school environment. This strategy aims not only to form conceptual understanding, but also direct experience that has an impact on student behavior. In the interview, the principal stated that "*The project-based learning method is very effective in instilling environmental awareness in students because it combines Islamic values and real practice.*"

Furthermore, teachers encourage students to discuss environmental issues such as pollution, plastic waste, and forest destruction, while linking them to Islamic principles such as maintaining cleanliness, love of nature, and social responsibility. For example, students are invited to make educational posters about cleanliness or develop action plans to reduce plastic waste in the school environment (Purnama, 2019). Teachers also organize collaboration between students on projects, which not only forms ecological awareness but also social and teamwork skills. Student responses to this learning strategy are generally very positive. Based on observations and interviews, students show high enthusiasm when the material is directly related to everyday life. They feel more involved because learning is not only theoretical, but provides space for direct practice and reflection on values

Student Responses to Learning Strategies

Student responses to the learning approach implemented by Islamic Religious Education (PAI) teachers at Tri Bhakti At Taqwa Vocational School tend to be positive and enthusiastic. Based on the results of interviews with teachers and school principals, students showed high interest in learning methods that were linked to real life, especially those related to environmental issues. PAI teachers stated that project-based learning and real action encouraged students to be more active, responsible and reflective of their role as caliphs on earth. This is demonstrated through their involvement in activities such as environmental campaigns, tree planting and waste management. This strategy provides space for students to practice Islamic values directly in a social and ecological context.

As emphasized by the school principal, students who take part in project-based PAI learning tend to be more focused and motivated, compared to conventional methods which only rely on lectures and LKS books. This positive response is also caused by collaborative and contextual learning, so that students do not only receive material passively, but are actively involved in discussion, reflection and real action.

Several students, according to the results of interviews, are starting to show concrete behavioral changes, such as starting to sort waste, reducing plastic use, keeping the classroom clean, and inviting their friends to care about the environment. Learning that is integrated with Islamic values has succeeded in forming awareness that protecting the environment is not only a social responsibility, but also part of a spiritual responsibility.

Supporting Factors for Environment-Based PAI Learning Strategies

Supporting Factors: Schools provide facilities such as separate trash cans, school gardens, and learning media that support environmentally based PAI learning. PAI teachers are very committed to combining Islamic values with environmental awareness. One of the main supporting factors is teacher creativity in designing learning. Students engaging in project-based learning and practical activities are critical to the success of learning strategies (Saputri et al., 2023).

The environment-based PAI learning strategy at Tri Bhakti At Taqwa Vocational School is supported by a number of important factors originating from internal schools and teachers. From the results of interviews with school principals and PAI teachers, as well as observations in the field, it was found that teacher commitment, school facilities and student involvement are the dominant factors that strengthen learning effectiveness.

Table 1. Supporting Factors for Environment-Based PAI Learning

No	Supporting Factors	Description
1	PAI Teacher Commitment	Teachers actively integrate Islamic values

		into environmental topics. Teachers also show high enthusiasm in guiding students through project methods and real action.
2	School Facilities	Schools provide facilities such as separate trash bins, school gardens, and other supporting facilities that enable environmental practice activities.
3	Creativity in Designing Learning	Teachers use contextual approaches, discussions, and project-based methods such as cleanliness campaigns, tree planting, and making environmental posters based on Islamic values.
4	Active Student Involvement	Students show active participation in environmental activities such as waste management and tree planting, and begin to adopt an environmentally friendly lifestyle at school and at home.

"Students become more active and responsible for their environment. Learning through real practice creates deeper understanding." *(Interview with PAI teacher, 2025)*

Factors Inhibiting Environmentally Based PAI Learning Strategies

Inhibiting factors The time available for PAI learning in class is insufficient to implement learning strategies that require more time, such as environmental projects. Students still don't understand the importance of protecting the environment, so more effort is needed to understand it. Learning projects such as tree planting or waste management face technical problems such as insufficient land or supporting materials (Sahran, 2016).

Even though it has a lot of potential, the implementation of this strategy still faces several obstacles that can hinder its success. Based on the results of interviews and observations, these challenges stem from limited learning time, students' low initial awareness, as well as technical obstacles in implementing environmental projects.

Table 2. Factors Inhibiting Environment-Based PAI Learning

No	Inhibiting Factors	Description
1	Limited Learning Time	PAI's limited face-to-face time is not enough to carry out project-based activities that require a longer duration.
2	Student Awareness is Still Low	Some students do not yet have a deep understanding of the importance of protecting the environment, so an iterative approach is needed so that this value is ingrained.
3	Limited Project Support Facilities	Activities such as tree planting and waste management are hampered by a lack of land, practical materials or other logistical support.
4	Conventional Learning Media	Teachers still use limited learning media such as worksheet books and blackboards,

		so students quickly lose focus and are less interested.
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"The children get bored if they only listen to my lessons. The media I use are still worksheet books and blackboards, so it's difficult to control them." *(Interview with PAI teacher, 2025)*

DISCUSSION

Implications of Learning Strategies for Students' Environmental Awareness

The PAI learning strategy used influences students' environmental awareness. Students gain a better understanding of the fact that protecting the environment is not only a social responsibility but also a religious responsibility. This encourages students' attitudes and behavior to change, such as reducing littering. Increasing people's involvement in the school environment. adopt an environmentally friendly lifestyle, including saving energy and water (Arjunnajata et al., 2024).

The implementation of Islamic Religious Education (PAI) learning strategies that are integrated with environmental issues has had a significant impact on increasing the environmental awareness of class X students at Tri Bhakti At Taqwa Vocational School. Based on the results of interviews with teachers and school principals, it is known that the most effective methods are project-based learning and real action approaches (experiential learning). These two approaches are able to build students' active involvement and instill a deep understanding of Islamic values related to responsibility towards nature.

Teachers give assignments in the form of environmental campaigns based on Islamic values, tree planting activities, and waste management projects. This activity is not only cognitive, but also involves students' affection and psychomotor skills, so that Islamic teaching values such as *caliph fil ardh* (leader on earth), *love is not sorry*, And *social responsibility* become more concrete in their lives. Student responses to this strategy are generally very positive. They feel learning becomes more interesting and relevant to real life. This is reflected in changes in student behavior, who are starting to reduce the habit of littering, care more about the cleanliness of the school environment, and are active in environmental conservation activities.

Another implication identified from the results of observations and documentation is the emergence of an environmentally friendly lifestyle that students are starting to adopt, such as sorting waste, bringing their own drinking bottles, and saving on water and electricity usage. The principal also noted an increase in student participation in school environmental activities, such as mutual cooperation and reforestation. This awareness is not only formed from the delivery of material in class, but is strengthened by student involvement in real actions that internalize Islamic values contextually. The PAI learning strategy implemented not only has an impact on increasing students' understanding of the subject matter, but also forms an environmentally caring character that is based on religious values. The integration of religious teachings and environmental practices has been proven to be able to encourage a more complete and sustainable transformation of students' attitudes and behavior

The findings of this research show that Islamic Religious Education (PAI) learning strategies that are designed contextually and based on real action can increase the environmental awareness of class X students at Tri Bhakti At Taqwa Vocational School. The approach used includes project-based learning, religious discussions about human responsibility as caliphs on earth, as well as direct practices such as

environmental campaigns and waste management. This has been proven to encourage changes in student behavior, such as the habit of sorting waste, saving water and energy, and actively participating in environmental conservation activities at school.

This strategy forms an understanding that protecting the environment is part of practicing religious values, not just a social obligation. Students internalize that environmentally friendly behavior is part of worship and a mandate that must be carried out. These findings emphasize the importance of integration between religious values and environmental education in forming environmentally caring character.

When compared with several previous studies, there are important similarities and differences:

1. Nuzulia et al. (2020) examined implementation *Adiwiyata Program* and concludes that environmental education that is systematically designed is able to instill environmentally caring character through an environmentally based curriculum approach. However, this research has not focused on religious aspects as shown in this research, where Islamic values are the foundation for forming students' environmental awareness (Nuzulia et al., 2020).
2. Maesaroh et al. (2021) emphasizes the importance of environmental literacy in fostering students' awareness of ecological issues. These studies are similar in terms of encouraging active student engagement, but differ in approach. If Maesaroh focuses on the literacy and cognitive dimensions, then this research emphasizes the affective and religious dimensions through practice-based PAI learning (Maesaroh et al., 2021).
3. Munawar et al. (2019) show that high environmental knowledge correlates with students' environmental awareness. These studies are similar in terms of end-result focus (i.e. increased awareness), but differ in pedagogical approaches. This research not only conveys information, but involves students in real action based on Islamic values (Munawar et al., 2019).
4. Deswari & Supardan (2016) emphasize the importance of planning in implementing environmental education at *Adiwiyata* schools. These findings are consistent with the importance of structured learning strategies. However, the advantage of this research is the integration of religious values which provide a moral and spiritual dimension in environmental conservation efforts (Deswari & Supardan, 2016).
5. Karim (2018) stated that a humanistic approach in religious education can encourage students to be more aware of the environment. These findings are close to the approach used in this research, but your research places more emphasis on practical and collaborative activities that are integrated with the PAI curriculum and more contextual to the lives of vocational school students (Karim, 2018).

The following is a comparison table between the findings of this research and five relevant previous references, which discuss learning strategies in increasing environmental awareness in students.

No	Reference	Research Focus	Approach/Method	Key Findings	Comparison with This Research
1	Nuzulia et al. (2020)	Adiwiyata Mandiri program in forming	Implementation of environmental curriculum in schools	Students show environmentally caring	Both emphasize the formation of environmentally caring character,

		environmentally caring character		character through school programs	which is different because this research integrates Islamic religious values as a basis for learning
2	Maesaroh et al. (2021)	Environmental literacy in students	Environmental literacy and cognitive awareness	Students become more sensitive to environmental issues through literacy	The same in terms of increasing awareness, but this research places more emphasis on real, religious-based practices, not just cognitive ones
3	Munawar et al. (2019)	The relationship between knowledge and environmental awareness	Quantitative – correlation of knowledge and attitudes	Environmental knowledge contributes greatly to awareness	This research is broader: apart from providing knowledge, it also shapes attitudes through active and religious learning
4	Deswari & Supardan (2016)	Increasing environmental literacy in Adiwiyata schools	Inquiry plan-based environmental education	Literacy increases through structured and systematic implementation	The approach is similar in terms of planned strategy, but this research adds a stronger spiritual and religious dimension
5	Karim (2018)	Environmental awareness based on religious humanism	Humanism in religious education	Religious education encourages environmental awareness through a participatory approach	Almost the same approach to religious values, different because this research focuses on real and collaborative action in project-based vocational schools

Compared with previous research, this research offers a more comprehensive and religious-affective approach, with an emphasis on real practice, active collaboration, and the integration of Islamic values in PAI learning strategies. This

provides a new contribution to the discourse on religious-based environmental education at the vocational education (SMK) level, which has not been touched upon much in previous literature. In addition, the findings from this research provide an important contribution to the development of Islamic Religious Education (PAI) learning practices in vocational school environments, especially in the context of increasing students' environmental awareness. The contribution of this research can be described in several aspects:

1. **Theoretical Contribution:** This research enriches literature related to learning based on religious values which is integrated with contemporary issues such as environmental conservation. The PAI learning strategy developed in this study emphasizes that Islamic religious values such as *trust*, *caliph*, and *bestowal* can be a strong normative basis in forming students' ecological awareness. This provides a new framework for developing religious-based character education.
2. **Practical Contribution:** This study shows concretely how project-based learning methods, contextual approaches, and real actions can increase students' active participation in environmental conservation. This strategy can be used as a reference for PAI teachers and teachers of other subjects to create cross-disciplinary learning models that are applicable and touch on students' affective and social aspects. Thus, the results of this research become a practical reference in designing PAI learning that is more relevant to real life.
3. **Contribution to School Policy:** These findings provide input for schools, especially vocational institutions, to pay more attention to the integration of environmental education into religious learning programs. This proven effective approach can be part of character and environment-based learning policies in schools through RPP and KTSP. In addition, schools can utilize the results of this research to develop extracurricular programs oriented towards forming environmental awareness based on religious values.
4. **Social Contribution and Local Added Value:** This research was conducted at Tri Bhakti At Taqwa Vocational School with a strong socio-religious background. By utilizing local values and Islamic religious wisdom that have been embedded in the community, this strategy has proven successful in encouraging student involvement in environmental action that has a positive impact. This is a model of collaboration in education, local values, and the role of religion in encouraging social change.

This research not only provides a practical solution to the challenge of low environmental awareness among vocational school students, but also offers an innovative, contextual and action-based PAI learning approach that can be replicated in various other educational units.

Recommendation

Teachers can continue to develop learning approaches that are innovative and relevant to modern problems, such as the environment. Apart from that, there needs to be an effort to expand collaboration with other relevant subjects, such as science and social studies. Schools can support teachers' work by providing facilities that support environmentally based learning, such as waste banks or tree planting projects. Additional research can be conducted to find out how environmentally based PAI learning influences student behavior, both at school and outside of school.

CONCLUSION

The study shows that effective Islamic Religious Education (PAI) learning strategies increase the environmental awareness of class X students at Tri Bhakti At Taqwa Vocational School. It is proven that religious principles can be integrated with environmental issues with methods such as contextual learning, project-based, discussions, and case studies. This strategy encourages students to participate actively and teaches them the importance of protecting the environment. Students are very interested in learning related to everyday life. They started to care more about their environment and started participating in environmental activities at school and adopting an environmentally friendly lifestyle. Learning success is supported by the availability of facilities, teacher support, and student participation. However, issues such as time constraints, lack of initial student awareness, and technical issues must be addressed to make learning more effective. The learning strategies used significantly increase students' awareness of their living environment. They become aware that protecting the environment is a religious and social obligation according to Islamic teachings. This study suggests continuing to develop innovative and relevant learning approaches and to increase school support for environmentally based learning initiatives. Additionally, more research is needed to measure the long-term impact of this learning on how students behave in school.

REFERENCES

- Arcanita, R., Putra, A., & Lestari, S. D. (2024). *Analisis Kesulitan Belajar Siswa Pada Mata Pelajaran Pendidikan Agama Islam Dan Strategi Mengatasinya Di Sma Negeri Tugumulyo Kabupaten Musirawas* [Undergraduate, Institut Agama Islam Negeri Curup]. <https://E-Theses.Iaincurup.Ac.Id/5836/>
- Arjunnajata, R., Ibrahim Mamesah, M. F. A., & Fathurrohman, R. (2024). Dampak Pembelajaran Pai Berbasis Lingkungan Dengan Integrasi Teknologi Dan Media Sosial Terhadap Karakter Religius Siswa Sdn 1 Mlaran Purworejo. *Indonesian Journal Of Elementary Education And Teaching Innovation*, 3(2), 109. [https://doi.org/10.21927/Ijeeti.2024.3\(2\).109-118](https://doi.org/10.21927/Ijeeti.2024.3(2).109-118)
- Deswari, N., & Supardan, D. (2016). Upaya Peningkatan Environmental Literacy Peserta Didik di Sekolah Adiwiyata (Studi Inkuiri Naturalistik di SD Negri 138 Pekanbaru). *Jurnal Socius*, 5(2). <https://doi.org/10.20527/jurnalsocius.v5i2.3331>
- Fadli, M. R. (2021). *Memahami Desain Metode Penelitian Kualitatif*. 21(1).
- Karim, A. (2018). Mengembangkan Kesadaran Melestarikan Lingkungan Hidup Berbasis Humanisme Pendidikan Agama. *Edukasia : Jurnal Penelitian Pendidikan Islam*, 12(2), 309. <https://doi.org/10.21043/edukasia.v12i2.2780>
- Kefi, K. M. U. (2023). Scientific Approach to Study of Al-Quran Mathematics. *At-Thullab : Jurnal Mahasiswa Studi Islam*, 5(2), 143-155. <https://doi.org/10.20885/tullab.vol5.iss2.art14>
- Maesaroh, S., Bahagia, B., & Kamalludin, K. (2021). Strategi Menumbuhkan Literasi Lingkungan Pada Siswa. *Jurnal Basicedu*, 5(4), 1998-2007. <https://doi.org/10.31004/basicedu.v5i4.1048>
- Makbul, M. (2021). *Metode Pengumpulan Data Dan Instrumen Penelitian*. Osf. <https://doi.org/10.31219/Osf.Io/Svu73>
- Martono, N. (2010). *Metode Penelitian Kuantitatif: Analisis Isi Dan Analisis Data Sekunder (Sampel Halaman Gratis)*. Rajagrafindo Persada.
- Munawar, S., Heryanti, E., & Miarsyah, M. (2019). Hubungan Pengetahuan Lingkungan Hidup Dengan Kesadaran Lingkungan Pada Siswa Sekolah

- Adiwiyata. *LENSA (Lentera Sains): Jurnal Pendidikan IPA*, 9(1), 22–29. <https://doi.org/10.24929/lensa.v1i1.58>
- Nuzulia, S., Sukanto, S., & Purnomo, A. (2020). Implementasi Program Adiwiyata Mandiri Dalam Menanamkan Karakter Peduli Lingkungan Siswa. *SOSIO-DIDAKTIKA: Social Science Education Journal*, 6(2), 155–164. <https://doi.org/10.15408/sd.v6i2.11334>
- P, D. Z., C, E. U., & Kamal, M. (2023). Pentingnya Pendidikan Agama Islam Dalam Meningkatkan Nilai Karakter Dan Moral Anak Di Masa Pandemi. *Journal Of Islamic Education*, 3(1), Article 1. <https://doi.org/10.18860/Jie.V9i1.22808>
- Purnama, H. I. (2019). *Penguatan Pendidikan Karakter Berbasis Budaya Literasi Dasar*. Yudha English Gallery.
- Putri, A. L., Ulum, K. M., & Khairunnisa, M. (2024). *Chūn Zǐ Ēr N ǔ (春子儿女) : Islamic and Indonesian Legal Perspective*. 5(2), 77–98. <https://doi.org/10.37274/mauriduna.v5i2.1173>
- Sahlan, A. (2011). Pembelajaran Pendidikan Agama Islam Dengan Pendekatan Kontekstual. *El-Hikmah*, 0, Article 0. <https://ejournal.Uin-Malang.Ac.Id/Index.Php/Elhikmah/Article/View/2241>
- Sahran, F. I. (2016). *Analisis Faktor Penghambat Pembelajaran Pai Dan Dampaknya Terhadap Hasil Belajar Peserta Didik Di Smk Negeri 1 Enrekang* [Diploma, Universitas Islam Negeri Alauddin Makassar]. <https://Repository.Uin-Alauddin.Ac.Id/6314/>
- Saputri, R. Y., Oktaria, S. D., & Muhsom. (2023). Pengelolaan Sarana Dan Prasarana Pendidikan Dalam Membangun Sekolah Yang Efektif Di Sekolah Dasar. *Jurnal Pgsd: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 16(2), 141–147. <https://doi.org/10.33369/Pgsd.16.2.141-147>
- Umkabu, T. (2022). Strategi Pembelajaran Pendidikan Agama Islam (Pai) Berbasis Keteladanan Di Pendidikan Dasar Dan Menengah. *Trilogi: Jurnal Ilmu Teknologi, Kesehatan, Dan Humaniora*, 3(3). <https://doi.org/10.33650/Trilogi.V3i3.5910>
- Warsita, B. (2018). Strategi Pembelajaran Dan Implikasinya Pada Peningkatan Efektivitas Pembelajaran. *Jurnal Teknodik*, 064–076. <https://doi.org/10.32550/Teknodik.V13i1.440>
- Yusra, Z., Zulkarnain, R., & Sofino, S. (2021). Pengelolaan Lkp Pada Masa Pandemi Covid-19. *Journal Of Lifelong Learning*, 4(1), 15–22. <https://doi.org/10.33369/Joll.4.1.15-22>
- Zulkarnain, H., Humaidi, M. N., & Nurhakim, M. (2021). Integrasi Pembelajaran Pendidikan Agama Islam Dengan Pendidikan Lingkungan Hidup Pada Program Adiwiyata Sd Plus Al-Kautsar Malang. *Jurnal Pendidikan Islam*, 12(2).

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