

Integration of PAI with Environmental Preservation: Building Ecological Piety for Students at School

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Abstract

The integration of Islamic Religious Education (PAI) with environmental conservation to build ecological piety among students is important to preserve nature in the future. Therefore, education based on Islamic values collaborated with natural knowledge is expected to increase environmental awareness among the younger generation. In accordance with the existing statement, the purpose of this study is to examine how the integration of PAI can shape the character of students who care about the environment. This research uses a descriptive qualitative approach and literature study to explore relevant literature so as to obtain research results that show that religious education integrated with environmental preservation can increase students' ecological awareness. The research subjects were teachers and students of MTsN 1 Palangka Raya, while the data collection techniques used observation, interviews and documentation. The results showed that in addition, programs such as Adiwiyata School in MTsN 1 Palangka Raya have proven effective in

shaping a culture of environmental care in schools. Although there are challenges in implementing the curriculum, innovative efforts are needed to overcome these obstacles. This research is expected to contribute in developing more effective learning strategies in terms of environmental conservation.

Keywords: PAI Integration; Environmental Conservation; Ecological Piety

INTRODUCTION

Islamic Religious Education (PAI) has an important role in shaping the character and morals of students (Judrah et al., 2024). According to Al-Faruqi & Ismail, (1995) one aspect that needs attention is the integration of Islamic values in environmental conservation. Likewise according to (Al-Qardawi, 2001) In Islamic teachings, humans are given the responsibility as khalifah (human responsibility as managers of the earth), mizan (balance), and amanah (trust) which directs Muslims to be responsible for nature conservation. However, in reality, there are still many behaviors that do not care about the environment, such as water, air and soil pollution caused by human activities. (Bakri et al., 2023). Therefore, it is important to develop the concept of ecological piety based on Islamic teachings so that students have a higher awareness in protecting the environment. The integration of PAI with environmental conservation in schools is an effective strategy in shaping the character of students who care about nature (Sagala et al., 2024).

Ecological piety is a concept that emphasizes that protecting the environment is part of worship and a form of servitude to Allah (Riyanto, 2022). In Islam, there are many verses of the Qur'an and hadith that emphasize the importance of maintaining the balance of nature. For example, in Surah Al-Rum verse 41 which reads:

ظَهَرَ الْفَسَادُ فِي الْبَرِّ وَالْبَحْرِ بِمَا كَسَبَتْ أَيْدِي النَّاسِ لِيُذِيقَهُمْ بَعْضَ الَّذِي عَمِلُوا لَعَلَّهُمْ يَرْجِعُونَ

Meaning: "There is corruption on land and in the sea due to the works of men, so that God may make them feel some of the consequences of their deeds, so that they may return to the right path" (Q.S Al-Rum (30): 31)

The surah explains that Allah commands people not to go overboard and destroy what Allah has given them (Kurniadi et al., 2023). In addition, the Prophet Muhammad's

hadith also mentions that planting trees is a rewarding practice. Thus, education based on religious values can be a strong foundation in building environmental awareness (Shofiyyah et al., 2023; (Habibah et al., 2025). Through this approach, students are expected to not only understand the importance of protecting nature but also apply it in their daily lives.

One form of implementation of PAI integration with environmental preservation is through the Adiwiyata School program (Zulkarnin et al. , 2021). This program aims to establish a culture of environmental care in the school environment by involving all school members. In the Adiwiyata School concept, students are taught to manage waste wisely, save water and energy, and create a green and healthy environment (Fortuna et al., 2023). Through this approach, students not only gain theoretical knowledge but also direct experience in applying ecological piety (Priolawati et al., 2024; Surawan & Yanti, 2024). Thus, schools become an effective place to instill environmental awareness based on Islamic values.

Several previous studies have highlighted the importance of environmental awareness as part of faith. Research conducted by Imamah et al., (2022) found that students who have a good understanding of religion tend to care more about the environment. This shows that the integration of religious education in environmental conservation can increase students' ecological awareness. In addition, research by Meika & Putra (2021) revealed that schools that implement environment-based programs, such as Adiwiyata Schools, have a stronger culture of environmental care. Another research by Mulia (2024) shows that ecological piety can be instilled through Islamic values-based learning integrated in the curriculum.

Although various efforts have been made, there are still challenges in integrating PAI with environmental preservation. In accordance with the data obtained by Faizin et al., (2024) some schools do not yet have a curriculum that accommodates Islamic values-based environmental education. In addition, teachers' involvement in teaching ecological piety is still limited. Therefore, a more systematic and innovative approach in applying this concept is needed (Ayyatullah, 2020). One of them is by providing teaching materials based on Islamic teachings and building a school culture that supports sustainable environmental practices (Susilowati, 2022; Soddiq et al., 2025). With a strong integration between religious education and environmental conservation, it is hoped that students can have a higher awareness of the importance of preserving nature (Saifudin, 2023).

Thus, this study aims to examine how the integration of PAI with environmental conservation can build ecological piety for students in schools. This research will also explore future challenges related to environmental conservation. With this research, it is expected to contribute in developing learning strategies that are more effective in shaping the character of students who care about the environment. In the end, the young generation with high ecological awareness will be able to become agents of change in maintaining environmental sustainability.

METHODS

The writing method in this research uses a descriptive qualitative approach. The qualitative approach was chosen because this research focuses on an in-depth understanding of the phenomenon of ecological piety. The research subjects were teachers and students of MTsN 1 Palangka Raya, while the data collection techniques used observation, interviews and documentation. The data collected through the filed research and literature study was critically analyzed to identify patterns, themes, and perspectives that support a more comprehensive understanding of the importance of environmental awareness as a form of faith

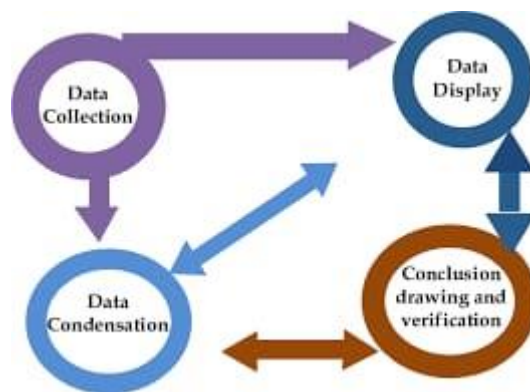


Figure 1. Data Analysis

RESULTS

Adiwiyata School Planning as the basis of Ecological Piety

MTsN 1 Palangka Raya captures the potential to build student character in the Adiwiyata Program, one of which is the character of caring for the environment. The Adiwiyata Program at MTsN 1 Palangka Raya was passed by following the program from the Palangka Raya City Environment Office starting with an environmentally sound school

and when it passed it was given the opportunity to go to Adiwiyata School. In implementing the Adiwiyata program, there are several plans that need to be prepared so that it is carried out properly. Here are some of the Adiwiyata Program plans implemented at MTsN 1 Palangka Raya:

1. Socialization of Adiwiyata Implementation

The adiwiyata program is indeed related to learning. Because through learning, increasing student character to care about the environment can be maximized. At first it is necessary to socialize to the teachers. Ask the principal for consideration and proceed to the school curriculum section. So that in the future the teachers in making lesson plans include characters related to the Adiwiyata program.

2. Lesson Plan

Before teaching, teachers must first design a lesson plan, therefore according to experts the definition of learning can be explained as stated by Mulyasa (2007) revealed that lesson plans are plans describing teaching procedures and management to achieve one or more basic competencies set out in competency standards and described in the syllabus. The addition of environmental care characters in the lesson plans is because it is part of the directives carried out from the Environmental Agency and listed in the Adiwiyata Program. For example, in class VII there is an application of alternative energy or alternative energy sources. Children are asked to do assignments related to this. Then we can also give direction. We invite them to set an example or invite their peers to keep the school or school environment clean so that the school's title can be a school that is a friend of the earth or a friend of a healthy, clean and comfortable environment. But indeed, after the Adiwiyata Program, the school emphasizes more so that the character of environmental care can be better understood and implemented by students. One solution that can be done in developing the character of school members, especially the character of environmental care, can be done by making policies that integrate environmental education with the curriculum used by schools.

3. Plant and Planting Procurement

The Planning Program in procurement is to increase the number of plants because our school lacks plants. There are many mini-fields, open fields but green land is very minimal so that at the beginning it was necessary to spend a lot of funds to purchase plants related to Adiwiyata. Not all plants were purchased because some plants were

already prepared when the Environmental School program was implemented previously. Procurement of facilities and infrastructure in maximizing this program does need good management so as not to spend too much money.

Table 1. Analyzing the Planning for Implementing Adiwiyata School

Aspect	Description	Analysis
Objective Setting	The goal is to create a school that is environmentally conscious and integrates sustainability practices into daily activities.	Clear objectives such as reducing waste, energy conservation, and promoting green spaces are essential to ensure the program's focus on environmental awareness.
Stakeholder Involvement	Involves students, teachers, parents, and local communities. Everyone plays a role in maintaining a sustainable environment.	Engaging all stakeholders from the start ensures broad support and active participation in implementing sustainability efforts at school.
Policy Development	Schools must create and enforce policies regarding waste management, energy use, water conservation, and environmental education.	Developing strong, enforceable policies will provide a framework for sustainability practices, ensuring they are institutionalized.
Curriculum Integration	Integrating environmental education into the school's curriculum, covering topics such as climate change, waste management, and biodiversity.	Curriculum integration is key to fostering environmental literacy and encouraging students to adopt sustainable practices both inside and outside the school.
Infrastructure Support	Schools need adequate facilities for recycling, energy-efficient lighting, water-saving systems, and green spaces.	Proper infrastructure enables the smooth implementation of the program and ensures the school's environmental goals are achieved through physical resources.
Resource Allocation	Securing financial resources to implement environmental programs such as purchasing recycling bins, planting trees, and upgrading infrastructure.	Adequate funding is required for the success of the program. A detailed budget must be prepared to cover all necessary resources and expenses.
Training Capacity Building &	Providing professional development and training for teachers and school staff on environmental sustainability	Training ensures that teachers and staff are equipped to guide students effectively and sustainably, leading to better

Aspect	Description	Analysis
Monitoring & Evaluation	practices and how to integrate them into teaching.	implementation of Adiwiyata principles.
	Regularly assessing the progress of the school in meeting environmental goals, identifying gaps, and adjusting the plan as needed.	Monitoring and evaluation are essential to measure the program's impact, identify challenges, and ensure that goals are being met. Adjustments can be made to stay on track.
Community Engagement	Involving the local community in projects such as tree planting, clean-ups, or awareness campaigns to enhance the school's environmental efforts.	Collaboration with the local community strengthens the impact of the program and reinforces the idea of shared responsibility for the environment.
Timeline & Milestones	Setting realistic timelines for the implementation of each stage of the program, from planning to execution, and tracking key milestones.	A clear timeline with milestones helps to keep the process on track and allows for timely adjustments if necessary. It also provides a sense of achievement as milestones are reached.

Implementation of Adiwiyata School and Integration in Learning

The Adiwiyata School program in principle is the cultivation of student character values, so one of the characters built is to care about the environment. This program is not a competition but an achievement program, in this case students as learning objects and teachers as actors and implementers in helping students related to the success of the program.

1. Building Disciplined Character

Then the most important thing is to build the character of discipline. Discipline Many children nowadays do not really care about the environment. The environment at school, at home and in the surrounding environment. A disciplined attitude will help children to develop self-control, and help children recognize wrong behavior and correct it. Because they don't have a disciplined attitude starting from the smallest things, for example, how children throw away the rest of their food wrappers to put them in their place in the trash can, it cares about caring and small things.

2. Building Responsibility Character

The second is the process that is built is a child who has a responsible character. Responsibility, of course, the most important responsibility is in its responsibility to its environment. The school environment, the family environment and the environment in the community

3. Giving Home Assignments

Children are asked to do tasks related to this. Then we can also give direction. We invite them to set an example or invite their peers to keep the school or school environment clean so that the school predicate can be a school that is a friend of the earth or a friend of a healthy, clean and comfortable environment.

4. Early Habituation

This must be built from children when starting from our first childhood because in basic education we automatically start from grades 1 to 6 what programs are implemented in this school that are related to the adiwiyata. Children's character in school must be habituated since childhood, exemplary teachers and all school parties and parents at home. Implementation of learning to build children's character through school culture, which uses habituation and exemplary behavior..

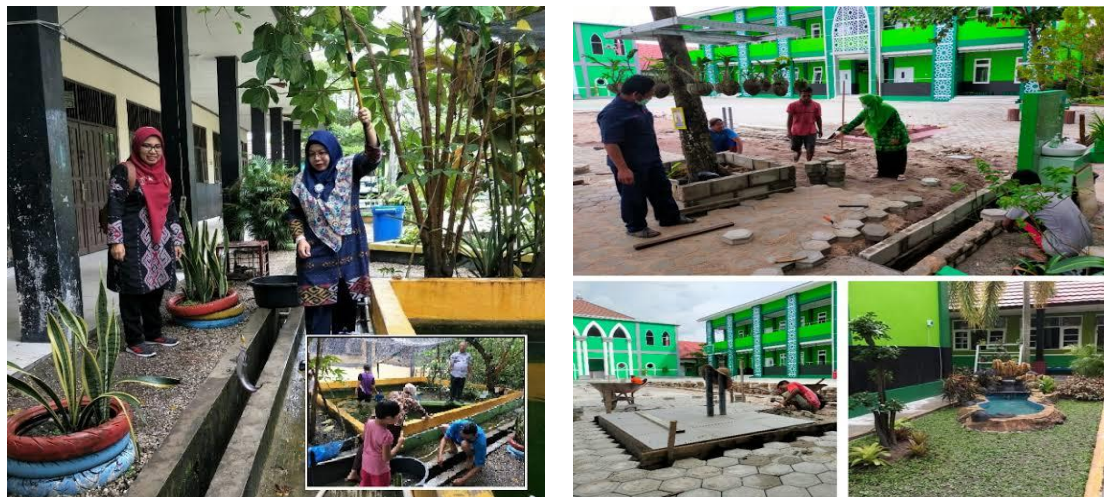


Figure 2 and 3 Implementation of Adiwiyata School

DISCUSSION

Ecological Piety and the Implementation of Faith

Environmental conservation is a matter of great importance in faith and spirituality (Romlah & Rusdi, 2023). In Islam, humans are seen as caliphs who are responsible for maintaining and caring for the earth and everything in it (Al-Qardawi, 2001). This responsibility consists of conserving natural resources which include water, land, animals and plants. This concept is not only moral but also a commandment of God that must be carried out by every individual (Rohmah et al., 2021). By understanding the role of humans as managers, humans are required to behave wisely in utilizing existing resources. This is the basis for real action in preserving the environment. Ecological piety includes actions based on faith and awareness of the importance of the environment. In every aspect of life, Muslims are taught to maintain the balance of nature. (Ayyatullah, 2020; Fajriansyah et al., 2021). For example, in the use of water, we are taught not to be wasteful and to use water in moderation. This concept teaches that every drop of water has value and should be cherished. In addition, land utilization must also be done wisely so as not to damage the ecosystem.

One way to implement the concept of conservation is through community education. Education about the importance of the environment should start early, both at home and at school. Through this knowledge, the younger generation will be more aware and concerned about the environment (Kamilia, 2023). In addition, campaigns that educate the public about the dangers of pollution and waste of natural resources are also very important. Therefore, every individual is expected to contribute in keeping the environment clean and sustainable (Azaahra & Siti Maysithoh, 2024). Thus, ecological piety can be achieved through collective action and shared awareness as God commands his servants to always take care of what has been given through the holy book of the Qur'an and Hadith. The Qur'an as the holy book of Muslims provides many instructions regarding the preservation of natural resources. One of the verses that emphasizes this is Al-Anfal verse 7,

وَإِذْ يَعِدُّكُمْ اللَّهُ إِحْدَى الطَّائِفَتَيْنِ أَنَّهَا لَكُمْ وَتَوَدُّونَ أَنَّ غَيْرَ ذَاتِ الشُّوْكَةِ تَكُونُ لَكُمْ وَيُرِيدُ اللَّهُ أَنْ يُحَقِّقَ الْحَقَّ بِكَلِمَاتِهِ
وَيَقْطَعَ دَابِرَ الْكَافِرِينَ

Meaning: “(Remember) when Allah promised you that one of the two groups (you faced) would be yours, while you wished that the one with no armor would be yours. But

Allah wanted to establish the right (Islam) by His decree and destroy the disbelievers by the roots.”

The verse reminds us of the importance of protecting water resources. Water is a precious source of life, and its use must be done wisely (Azaahra & Siti Maysithoh, 2024). In this modern world, where the water crisis is becoming increasingly worrisome, this verse is relevant to remind us of our responsibility to use water wisely. By conserving water, we are not only fulfilling a religious commandment, but also protecting the ecosystem and life on earth (Rohmat et al., 2021). Water conservation efforts should be a priority for every individual and group.

Another important verse is Al-Baqarah verse 164, which shows the beauty of Allah's creation and the importance of protecting the environment. In this verse, Allah emphasizes that the creation of the heavens and the earth and the alternation of night and day are signs for those who have understanding (Annibras & Afham, 2024). It invites us to contemplate and appreciate nature as His creation. By understanding that humans are part of a larger ecosystem, we will be more motivated to protect and preserve the environment. Any act of damaging the land will directly affect the lives of humans and other creatures (Sukamayasa, 2024). Furthermore, Q.S Al-An'am verse 38 reminds us that all living creatures have the right to be protected. This verse states that all animals and birds have their own people, and should not be destroyed (Tarigan, 2022). Conservation of animals and plants is part of our responsibility as stewards of the earth. By preserving biodiversity, we are helping to maintain the balance of the ecosystem. This also contributes to human health and well-being. Through this understanding, we can hopefully appreciate and protect all living things more (Azaahra & Siti Maysithoh, 2024).

The implementation of faith in environmental conservation can be done through various easy ways. One of them is by applying sustainable principles in everyday life. For example, start by reducing the use of plastic and choosing environmentally friendly goods (Azizah & Amalia, 2023). In addition, simple actions such as recycling waste are also very beneficial. By doing these small things, it can show a commitment to protecting the environment in accordance with religious teachings. Environmental awareness should be an integral part of every individual's life of faith. In addition, environmental education also needs to be a focus in the implementation of faith (Azaahra & Siti Maysithoh, 2024). Schools can include materials on environmental conservation in the curriculum. By doing

so, the younger generation will have a better understanding of their responsibility towards nature (Zulkarnin et al., 2021). In addition, extracurricular activities related to the environment can also increase student awareness. By providing knowledge and experience, it can give birth to a generation that is more concerned and responsible for the environment, which is very important for future survival (Meika & Putra, 2021).

Integration in Islamic Religious Education

The preservation of natural resources in Islamic Religious Education (PAI) subjects is important to shape the character of students who care about the environment. By incorporating conservation values in the PAI curriculum, students can understand that protecting nature is part of worship (Sagala et al., 2024). The material taught can include the management of water resources, land, animals, and plants as a mandate given by Allah. Through this approach, students will realize the responsibility of humans as caliphs on earth (Ayyatullah, 2020). In addition, education based on these values can increase students' ecological awareness. This is one step towards creating a generation that is not only knowledgeable but also committed to environmental sustainability (Annibras & Afham, 2024).

One way to integrate water resources conservation in PAI learning is to teach the importance of water conservation. Students need to understand that water is a gift from Allah that must be preserved and used wisely (Mufida et al., 2024). In lessons, discussions can be held on water saving techniques and the impact of pollution on the ecosystem. In addition, practical projects such as rainwater management can be used as hands-on learning experiences (Zein, 2023). Through this experience, students will appreciate water resources more and commit to managing them well. As such, this lesson is not only theoretical, but also applicative (Pursitasari, 2023).

Soil management should also be a focus in PAI education. Materials on the importance of maintaining soil fertility and sustainable agricultural practices can be taught to students. This includes an understanding of environmentally friendly ways of planting and the use of organic fertilizers (Wahyudi, Mushodiq, & Wahyudi, 2022). By integrating this knowledge, students can learn about the relationship between agricultural practices and environmental health. Discussions about the negative impacts of destructive practices, such as deforestation and the use of harmful pesticides, should also be held. This will help students to understand how important it is to keep the soil fertile and productive (Humaida, 2024).

Protection of animals and plants is also an important aspect that must be taught in PAI. Students need to understand that every living thing has a role in the ecosystem and must be protected in accordance with Islamic teachings (Ningsih, 2024). Materials on endangered species and the importance of biodiversity can be part of the curriculum (Yuliani, 2023). In addition, projects such as tree planting and local habitat protection can be integrated into learning. Through these activities, students will learn first-hand about the importance of conserving flora and fauna. This will also foster a sense of love and responsibility towards the environment (Ramadhan et al., 2024).

In its implementation, schools can implement environment-based programs that are in line with the PAI curriculum. Programs such as Adiwiyata School can be an example of how the integration of environmental conservation is done effectively (Ummah, 2019). By involving the entire school community, students will learn about the importance of working together in protecting the environment (Fortuna et al., 2023). In addition, extracurricular activities such as environmental clubs can also be established to support this learning. In this way, students not only learn in class but also in daily practice. This will strengthen their commitment to environmental conservation (Wardani, 2020).

By integrating the preservation of natural resources in PAI subjects, it is expected that students can grow into individuals who are responsible and care about the environment (Zulkarnin et al., 2021). Education based on Islamic values will form a generation that not only understands the importance of protecting nature but also applies it in everyday life (Mazrur et al., 2022). This is an important step in creating sustainable ecological piety. Therefore, the development of PAI curriculum that includes environmental conservation should be a priority. Thus, the younger generation will be able to become agents of change in maintaining environmental sustainability.

Challenges of the Future

Humans as caliphs on this earth have one of the tasks related to environmental preservation that must always be maintained, there are challenges with issues such as forest burning, global warming, and the exploitation of interrelated nature (Humaida, 2024). Forest burning is one of the main problems that threaten biodiversity and ecosystem balance. It is often done to clear land for agriculture or settlements, leading to the loss of habitat for many species (Ansar et al., 2024). In addition, forest burning also contributes to increased carbon dioxide emissions, which exacerbates climate change. In this context,

Islamic Religious Education (PAI) can play an important role in shaping students' awareness of the importance of protecting forests (Taufiq, 2024). Through the approach of religious values, students are expected to understand that protecting nature is part of worship. As stated in Q.S Al-Rum verse 41, it is explained that the warning not to spread damage on earth after Allah has given His goodness and mercy. This verse invites humanity to maintain good relations with others and the environment, and not to destroy what Allah has created. Allah forbids actions that can cause harm and destruction to oneself and others, and emphasizes the importance of being kind and responsible towards His creation (Nasution, 2024).

Global warming is another challenge that future generations must face. The increase in Earth's temperature due to human activities, such as the use of fossil fuels, has led to drastic climate change (Sulkan, 2020). This phenomenon results in extreme weather, melting of polar ice caps, and rising sea levels, which have a direct impact on human life. In the context of PAI, global warming can be used as a discussion material to emphasize human responsibility as khalifah on earth (Akbar, 2023). Through this understanding, students can be taught about the importance of reducing their carbon footprint and maintaining a healthier lifestyle. With the right knowledge, they are expected to contribute to climate change mitigation efforts (Rahmawati et al., 2024). In addition to global warming the exploitation of nature is also another major challenge that must be faced. This practice is often done without considering the long-term impact on the environment. Mining, poaching, and deforestation are some examples of exploitation that damage ecosystems (Hasid, 2022). This not only threatens the existence of certain species, but also affects the health of soil and water. Education that emphasizes ecological piety can help students understand that every action has consequences. Thus, students will be more aware of the importance of preserving natural resources (Arianto, 2024).

One approach that can be applied in PAI education is an emphasis on sustainability values. By integrating environmental issues into the curriculum, students will be better prepared to face future challenges (Nasution, 2024). Environment-based programs in schools can provide hands-on experience in resource conservation. For example, greening activities or waste management programs can be a means to instil these values (Sagala et al., 2024). Through this experience, students not only learn theory, but also practices that can be applied in everyday life. This is an important step towards forming a generation that cares about the environment. In facing these future challenges, collaboration between all parties

is necessary (Shofiyyah et al., 2023). Governments, communities and educational institutions must work together to create sustainable solutions. Awareness of the importance of environmental conservation must be instilled early on, so that the younger generation can become agents of change. With the integration of religious education and environmental preservation, it is expected that students will have a higher awareness of these challenges (Arjunnajata et al., 2024). In the end, a generation that is sensitive to environmental issues will be able to maintain the sustainability of the earth for a better future.

Authors should discuss the results and how they can be interpreted from previous studies and the working hypotheses, not repeating the explanation in the research results section. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted. The discussion must also refer to the theory or results of previous research so that it can be seen whether the research results contradict or support each other with the theory or results of previous research. In addition, in this discussion, the novelty of the research results should be seen compared to previous research. The following components should be covered in the discussion: How do your results relate to the original question or objectives outlined in the Introduction section (what)? Do you provide an interpretation scientifically for each of your results or findings presented (why)? Are your results consistent with what other investigators have reported (what else)? Or are there any differences?

CONCLUSION

The integration of PAI with environmental preservation is very important to build ecological piety among students. Through education based on Islamic values, students are taught about their responsibilities as caliphs on earth to protect and preserve the environment. Programs such as Adiwiyata School are effective in shaping a culture of environmental care in schools. Although there are challenges in implementing a curriculum that accommodates environmental education, systematic and innovative efforts are needed to overcome these obstacles. By promoting high ecological awareness, the younger generation is expected to become agents of change who are responsible for the preservation of nature. Through the integration of religious education and environmental

conservation, it is expected that students not only understand but also apply these principles in their daily lives.

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