



# ENVIRONMENTAL LEARNING MODEL WITH STRATEGIC RELIGIOUS APPROACH TO ELEMENTARY STUDENTS IN MAKASSAR CITY

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## ABSTRACT

Environmental education is an educational program aimed at changing attitudes and behavior so that they can think and act rationally, can protect the environment, and are responsible for the quality of life now and in the future through the educational process. Environmental education plays an essential role in efforts to prevent and preserve the environment, especially related to global environmental issues in the Era of the Industrial Revolution 4.0 and Society 5.0 where there has been a lot of environmental damage due to changes in lifestyle in the use of technological developments. This study describes the development of an environmental learning model with a religious approach. The focus of the study is on controlling wasteful behavior in the environment, which results in a lot of plastic waste being produced. The model developed combines thematic learning, religious learning, and environmental education to apply the 5R concept (rethink, refuse, reduce, reuse, recycle). Environmental education with the 5R concept is expected to be used as a guide in behavior, as well as a medium for transferring knowledge, instilling values, and forming habits or culture that are environmentally sound.

**Keywords:** Environmental learning model; religious approach; thematic lessons; 5R Concept

## 1. INTRODUCTION

Environmental education is an alternative used by various schools in shaping the character of students in order to create human resources who have integrity related to concern for environmental issues and can implement the principles of sustainable development through the educational process (Wihardjo & Rahmayanti, 2021). Environmental education plays an important role in efforts to prevent and preserve the environment, especially related to global issues regarding environmental pollution in the Era of the Industrial Revolution 4.0 and Society 5.0 where there has been a lot of environmental damage due to human lifestyles in the use of information technology. The rapid development of technology which is not matched by the ability to use and manage it has an impact on the damage and replacement of various elements that cause environmental problems (Shahbaz et al., 2018).

Environmental problems that are currently happening are in fact, caused by one of them by educational institutions. Consumptive levels are increasing in student environments from year to year due to technological developments, which have an impact on the amount of waste produced. The high level of consumption causes an increase in the amount of waste produced, and the majority of the waste generated among students is plastic waste because most food and beverage product packaging is made of plastic. Plastic itself is a material whose decomposition and decomposition process takes a very long time compared to other materials (Thahir et al., 2021). Apart from taking a long time to decompose, plastic waste contains toxic substances. If plastic waste is exposed to sunlight, the toxic substances in the plastic will come out, which causes the surrounding soil to be contaminated. Meanwhile, if it is burned, it will cause air pollution because the air becomes contaminated with toxic substances contained in plastic (Ali et al., 2021).

In Indonesia, plastic waste is recorded at around 4.8 million metric tons per year, which is not properly managed. Then more than 620 thousand tons of that amount were dumped into the sea. This can disrupt the ecosystem balance, which threatens the extinction of marine biota (Hamzah et al., 2021). Based on the National Waste Management Information System (SIPSN), the composition of waste in Indonesia in 2022 shows that plastic waste is second under food waste. The percentage of plastic waste in 2022 will be 18.22%, an increase of 2.07% compared to 2021's 16.15%.

The urgency of patterns of use and management of plastic waste at all age levels needs to be encouraged, considering the increasing amount of plastic waste generated from human activities. There have been many studies related to implementing environmental education in various schools, but the student environment is still the largest contributor to plastic waste compared to other sectors. This is due to the lack of

optimal application of environmental education, which only focuses on increasing students' knowledge without any evaluation or follow-up of the research process so that many students return to their previous habits or lifestyles after the completion of the research. Environmental education is one manifestation of Law No. 32 of 2009 concerning the protection and management of the environment, especially Article 65, Paragraph 2, which states that one of the rights of the community is to receive environmental education. Therefore, to optimize the implementation of environmental education, learning in schools, especially at the 4<sup>th</sup>-grade elementary school level, must integrate three aspects in all stages of learning, namely thematic learning, religion, and environmental education. It is hoped that the values of these three elements can be used as guidelines in human relations with the environment as well as a medium for transferring various knowledge, instilling values, and forming environmentally friendly habits or cultures (Hidayat & Hidayat, 2015). Where this is under the words of God, in surat Al-A'raf ayat 56:

وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا وَادْعُوهُ خَوْفًا وَطَمَعًا إِنَّ رَحْمَتَ اللَّهِ قَرِيبٌ مِّنَ الْمُحْسِنِينَ ﴿٥٦﴾

*"And do not damage the earth after it has been created well. Pray to Him with fear and hope. Indeed, God's mercy is very close to those who do good."*

Based on the paragraph above, every human is aware and responsible for environmental quality. This is under environmental education's objectives, namely maintaining environmental sustainability. It is hoped that the collaboration of environmental education into the 3 learning elements will increase knowledge and form understanding, behavior, and awareness of the importance of environmental sustainability both for the present and the future (Imamah et al., 2022). The complexity of the learning model determines the purpose of this model, which is to become a guide for teachers in implementing classroom learning by incorporating religious material to increase students' knowledge and attitudes toward environmental management. This study specifically focuses on reducing and reusing plastic waste. So that the results of the collaboration of these 3 elements can complement students' intellectual competence, increase students' sensitivity and concern for various environmental problems, and make them committed to working together both individually and collectively to solve various environmental problems and prevent new problems from arising.

This learning model development study focuses on elementary school students (SD) and is carried out with various considerations. The first consideration is elementary school, which is the first level of school required by the government to be attended by all Indonesian citizens. The second consideration is the longer duration of education

compared to junior high school (SMP) and senior high school (SMA). With this duration of time, it makes it easier for educators to implement program evaluation. The third consideration is that students in elementary school with an age range of 7-12 years have more stable emotional maturity compared to the level below them.

## **2. METHODS**

This study uses a qualitative method as the first step in developing an environmental learning model in elementary schools. The research target is a description of the urgency, potential, and problems of implementing environmental education. Data tracking was carried out in three forms: focus group discussion, observation, and documentation. The research subjects were Al Fatih Integrated Islamic Elementary School (SDIT-AF) Makassar, which is a private school that has implemented an Islamic character development program in the last five years.

## **3. RESULTS AND DISCUSSION**

### *The Urgency of Implementing Environmental Education*

The results of searching for data regarding the urgency of environmental education in elementary schools yielded the following findings:

Data from FGD results involving three school leaders and five teachers found four components that became urgent for developing an environmental education model at SDIT-AF, namely:

- a. Environmental education in schools will contribute to students' habits in managing school cleanliness. One of the efforts to establish student independence is to involve students in managing the school environment.
- b. Students' character towards environmental concern can be achieved by developing students' knowledge of environmental problems.
- c. SDIT-AF's vision is to combine knowledge and Islamic values. The curriculum at this school combines Islamic values as basic for developing the character of student.
- d. SDIT-AF is one of the schools selected to receive assistance from the Ministry of Education and Culture as one of the driving schools. Therefore, this school must implement learning programs that are oriented towards strengthening competence and developing character according to Pancasila values, through learning activities inside and outside the classroom. Potential Application of Environmental Education.

The potential of SDIT-AF in implementing environmental education was found based on the results of searching for learning documents. These results reveal that some

teachers have implemented project-based learning methods in their classrooms. The method is carried out in stages:

- The teacher gives basic questions about the themes discussed. One of the themes is waste management. The teacher stimulates students to find answers through the outing school program (exploring around the school to find piles of trash and find objects that can be used again).
- Students are given the task of making a project design. The project is in the form of a presentation on waste management by utilizing objects from the outing class.
- Students arrange a project report preparation schedule in groups.
- The teacher's role is to monitor students' abilities in preparing projects.
- Learning outcomes are assessed through a cognitive, affective, and psychomotor evaluation of students.
- The teacher assesses students' ability to present their projects to classmates.

### *Model Planning*

The design of an environmental learning model that can be applied to SDIT-AF is learning that combines three educational mandates, namely thematic, religious, and environmental education lessons. As a first step, this model introduces the 5R concept in waste management. This learning model can be a guide for teachers in the classroom and can be implemented effectively and efficiently.

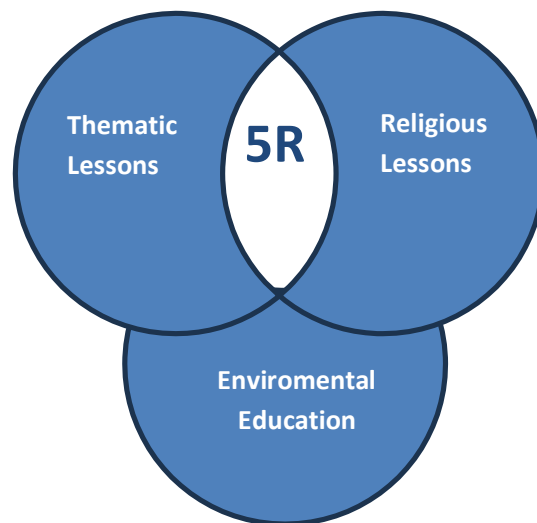


Figure 1. 5R concept

Description:

- a. **Thematic Lessons:** Thematic learning is an integrated learning model involving several subjects tied to certain themes. Natural science regarding the environment and ecosystem cycles is also explained in thematic learning. Here is explained the function of the environment, how to use it, the impact resulting from the utilization process, as well as the efforts made to reduce the negative impact caused.
- b. **Islamic Religious Lessons:** Islamic Religious Education (PAI) is the teachings, guidance, and concern of teachers for students to be able to carry out life following the commands and prohibitions contained in the Al-Qur'an and Hadith, where some rights and obligations must be accepted and carried out by humans. One of the fragments of the letter contained in the Qur'an is the letter Al A'raf, verse 56, concerning the right of humans to utilize existing natural resources and the obligation of humans to preserve the environment. If not, some consequences must be accepted, such as natural disasters, unpredictable weather, etc.
- c. **Environmental education:** Environmental education is an educational program that aims to change attitudes and behaviors in order to think and act rationally in protecting the environment and being responsible for the quality of life now and in the future through the educational process.

From the three studies above, it produces a learning module that contains the 5R concept (rethink, refuse, reduce, reuse, recycle) for environmentally friendly behavior, namely:

- a) Rethink. Teaches students to think again about the items to be purchased. Is this item really needed? If the item is really needed, consider buying good-quality used goods. This is done to shorten the supply chain of goods, which has an impact on reducing various aspects (resource savings), for example: reduced production of goods resulting in reduced pollution and pollution resulting from the production process, impacting on reducing the amount of piles of waste resulting from consumptive nature.
- b) Refuse. Teaches students to think again about the items to be purchased. Is this item really needed? If the item is really needed, consider buying good-quality used goods. This is done to shorten the supply chain of goods, which has an impact on reducing various aspects (resource savings), for example: reduced production of goods resulting in reduced pollution and pollution resulting from the production process, impacting on reducing the amount of piles of waste resulting from consumptive nature.

- c) Reduce. Reducing dependence on the use of goods or products that are difficult to recycle and are harmful to the environment. Reducing dependence on the use of non-environmentally friendly goods is a step that must be taken to minimize the number of piles of waste in landfills.
- d) Reuse. Reusing items that are not used or converting items that are still suitable for use. For example, used bottles reused as soap containers or pencil cases.
- e) Recycle. Reprocess used goods into useful new goods or products. For example: used plastic spoons are turned into decorative study lamps.

The combination of environmentally sound learning models, thematic learning, and religious learning is a form of innovation in learning. The project-based learning approach is an action that stimulates students to think critically and act according to the situation at hand. This finding is consistent with Chen's (2019) description that the project learning model produces a pattern of knowledge transformation through recognizing facts. Furthermore, students build their knowledge through the process of developing creativity and activities, as well as problem-solving. Another thing Hanif et al. (2019) revealed is that student creativity development will occur effectively when students can design projects to solve problems.

The application of religious education or a religious approach to basic education is a strategy aimed at cultivating students' spiritual potential and beliefs. The teacher's role is to guide students in growing their faith in waste management patterns. The growing awareness of environmental protection begins with students understanding that the earth and its contents are God's gifts that must be protected. Students will realize that humans are responsible for increasing pollution, which must be followed up with action.

In Islam itself, it has been explained in Al-Qur'an Al-A'raf verse 56 that humans have awareness and responsibility for the utilization and maintenance of environmental sustainability. Allah SWT actively involves humans in terms of utilization, where rights and obligations exist. Humans get their rights by obtaining benefits from the surrounding environment while carrying out their responsibilities by maintaining environmental sustainability. If these rights and obligations are not implemented, consequences will arise that must be borne by humans, for example, natural disasters, unpredictable weather, etc.

#### **4. CONCLUSION**

The design of an environmental learning model with a RELIGIOUS strategic approach begins with assessing the urgency, potential, and problems at the research location. Based on this study, elementary schools can apply an environmental education

model that integrates thematic patterns, religious patterns, and environmental education patterns. Project-based learning is a strategy that enables the attainment of increased cognitive, affective, and psychomotor aspects in students in environmental management.

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