

## **Need Analysis for Ecpesantren Model Development in South Sulawesi**

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**Abstract.** This study aims to describe the need for the development of an ecopesantren model to find models, tools and strategies for implementing 3R-based environmental learning (Re-use, Reduce & Recycle) so as to create an environmentally cultured Islamic boarding school (eco pesantren) in South Sulawesi. The results of this study are part of the development of the ecopesantren model in South Sulawesi which is the final objective of this study. The research approach used quantitative descriptive involving teachers and students at 3 (three) Islamic boarding schools in South Sulawesi. Data collection was carried out using interview and questionnaire techniques, the number of samples of teachers was 33 people and students were 135 students (students). The data analysis technique used quantitative descriptive analysis. The results showed that most of the pesantren residents expressed their approval of the application of the ecopesantren model. The pesantren also has the initiative to develop environmental management based on Reduce, Reuse and Recycle (3R) waste management as its non-curricular program. The strategy of implementing ecopesantren desired by pesantren residents includes: (1) integration of environmental education material through enrichment of materials and basic competencies in several subjects in pesantren, and (2) using an extra-curricular approach by forming an "environmentally aware santri" community. The ecopesantren model is believed by the pesantren community to be a solution to shape the character of human resources who have the knowledge, attitudes and skills to contribute to solving environmental problems.

**Keywords:** Needs Analysis, Ecpesantren, Environmental Education, 3R

### **INTRODUCTION**

The environment is a spatial unit with all objects, forces, conditions and living things, including humans and their behavior, which affect nature itself, the continuity of life, and the welfare of humans and other living things (Law No.32 of 2009). Based on this definition, an integration between environment and development is needed. This condition is necessary in order to achieve sustainable development which requires changes in environmental policies. Sustainable development is a conscious and planned effort that integrates environmental, social and economic aspects into a development strategy to

ensure environmental integrity as well as safety, capability, welfare, and quality of life for present and future generations.

Pesantren as educational institutions that have Indonesian characteristics, have an important role as a forum for educating the nation's children who are environmentally friendly. For this reason, the activities involved in engaging the pesantren community in environmental management are very important and cannot be ignored. Pesantren is an education that combines Islamic religious education and general education which is characterized by a boarding school where all student activities, both learning activities, extra-curricular activities, and daily living activities are carried out within the boarding school area. This of course makes pesantren have the potential to produce more waste than schools in general if it is not managed properly. On the other hand, of course this can also be a potential for the formation of communities as pioneers of environmental activities if assistance and program facilitation is carried out according to the characteristics, culture and local potential of the pesantren.

Dhofier (1994) defines that Islamic boarding schools are traditional Islamic educational institutions for studying, understanding, living and practicing Islamic teachings by emphasizing the importance of religious morals as guidelines for daily behavior. Nasir (2005) defines Islamic boarding schools as religious institutions that provide education and teaching as well as develop and disseminate Islamic religious knowledge. Tuanaya et al. (2007) states that the education system applied in modern Islamic boarding schools is related to the application of curriculum and methodology. Curriculum modernization is implemented by continuing to provide Islamic religious teaching, while including general subjects as educational substance.

It can be said that the condition of the pesantren is still not ideal as a model that becomes an example of the application of Islamic teachings in environmental care. In other words, there is still a gap between theory (ideal Islamic teachings) and everyday practical reality. In fact, on the other hand, public interest in attending Islamic boarding schools has always increased every year. In an effort to make a significant contribution as well as a place for best practice in environmental management, pesantren is a strategic land that can be used as a pilot area for good environmental management. Bangai and Blum (2010) describe the importance of school involvement in efforts to deal with climate change.

In addition, pesantren are known as institutions with strong independence, because they are free from any outside intervention. At a certain level, this institution can be an example of self-governing or autonomous schools, or schools that have strong autonomy. Usually with this strong autonomy, a "kyai" (teacher) can freely describe the ideas in carrying out all pesantren activities with the main objective of improving the ability of the students (Foltz, 2010). For this reason, the Ministry of Environment stated that Islamic boarding schools are potential partners in environmental development, and become partners in the

Environmental Education Movement. Islamic boarding schools are considered as institutions that have a community base. Having unique institutions (there are kiai, caregivers, ustadz, guardians of students and students) in addition to kyai who can become central figures who become role models for society, and many Islamic boarding schools are not exposed to independent environmental activities without government assistance.

So, in an effort to implement educational programs for sustainable development, there must be an integrated approach to facilitate environmental education for Muslims, especially Islamic boarding schools, in implementing and caring for the environment based on the principles of Islamic values held by pesantren and what is the spirit and purpose of pesantren education. . This research is expected to make a fundamental contribution in the field of education, especially environmental education for pesantren students, which will shape student attitudes and behavior in accordance with the concept of the environment and the formation of an alternative development of Environmental Education in South Sulawesi based on the national curriculum or local content curriculum. This research is also the first step to find an eco-learning model for the eco-Islamic boarding school based on waste management (3R) according to local potential and wisdom that can be applied and developed in the pesantren.

## **RESEARCH METHODS**

This research is the first year of research and development (R&D) which is planned for implementation in 2 (two) years. The research approach in this first stage is a descriptive approach with a research sample of 30 teachers and 135 students from three Islamic boarding schools in South Sulawesi who were selected purposively to be involved in this research. The data collection technique was done through structured interviews and questionnaires to the teacher. This is to obtain information related to needs analysis for the development of models and learning tools for the ecopesantren model. Meanwhile, the questionnaire was distributed to students to reveal their responses and expectations for the learning environment as well as to find out the analysis of the need for appropriate learning models and tools to be applied to ecopesantren models.

## **RESULTS AND DISCUSSION**

The results of this stage of research are in the form of descriptions of needs analysis revealed from interviews with teachers and distribution of questionnaires to students. These results are focused on two main problems, namely related to the development of a learning model that is suitable for the context of Islamic boarding schools and environmental learning tools, especially textbook materials that can support the implementation of environmental learning.

### Teacher Needs for the Ecopesantren Model

The information obtained from the interview activities of 30 teachers about the need for an environmental learning model suitable for the context of the pesantren, the teachers firmly stated that they responded well to the learning environment that was integrated with learning in the pesantren. This is because they have confidence that the model can increase student participation in environmental management. In addition, some teachers added that environmental learning was able to encourage students to have environmental management awareness and skills.

This belief is held by the teachers because most of the teachers or 60.61% of the interviewed teachers have participated in environmental education implementation training activities, and some of them even attended workshops related to best practices for integrating environmental learning and environmental culture school management. Thus it is not surprising that teachers claim that they have integrated environmental learning materials in their classrooms or environmental management practices in extra-curricular activities. This finding is in line with the results of previous studies which indicate that teachers in pesantren have a good perception of the implementation of environmental education because they have participated in socialization activities, and participated in activities to increase knowledge related to the environment such as seminars and training on various occasions ( Sofyan, 2016).

Table 1. Percentage of teachers who have attended environmental education training

| Have you ever attended environmental education training? | f  | %     |
|--|----|-------|
| a. Yes   | 20 | 60.61 |
| b. No  | 13 | 39.39 |
| Total  | 33 | 100   |

The frequency and percentage of socialization materials that have been attended by teachers can be seen in Table 2 below:

Table 2. Percentage of environmental education training materials that have been attended by teachers

| What are the materials for the socialization of environmental education that have been attended (There can be more than one answer option) | f  | (%)   |
|--|----|-------|
| a. Global Warming  | 8  | 21.62 |
| b. Environmental conservation  | 4  | 10.81 |
| c. Environmental pollution   | 9  | 24.32 |
| d. Waste management  | 6  | 16.22 |
| e. Environmental Culture School Program (Adiwiyata)  | 10 | 27.03 |

|       |    |     |
|-------|----|-----|
| Total | 37 | 100 |
|-------|----|-----|

Table 3 illustrates teachers' perceptions of the ideal approach to environmental education implementation in pesantren. Most of the teachers wanted an approach to implementing PLH in pesantren through integration in existing subjects (45.45%) and through extra-curricular activities (51.52%)

Table 3. Teachers' perceptions of the PLH implementation approach in pesantren

| In your opinion, what is the most ideal approach for implementing environmental education in Islamic boarding schools? | f  | %     |
|--|----|-------|
| a. Environmental education as a separate subject   | 1  | 3.03  |
| b. Material about the environment is inserted (integration) into existing subjects                                     | 15 | 45.45 |
| c. Pendidikan lingkungan diberikan dalam bentuk kegiatan-kegiatan ekstrakurikuler                                      | 17 | 51.52 |
| Total  | 33 | 100   |

Regarding teacher support in implementing environmental learning, it can be seen in Table 4 to Table 6 below.

Table 4. Teacher support for the implementation of PLH in pesantren

| Should environmental education be given to students? | f  | %     |
|--|----|-------|
| a. Strongly disagree                                 | 1  | 3.03  |
| b. Disagree  | 0  | 0.00  |
| c. Agree   | 13 | 39.39 |
| d. Strongly agree                                    | 19 | 57.58 |
| Total  | 33 | 100   |

Table 5. Willingness of teachers to teach PLH in Islamic boarding schools

| I am willing to teach environmental education in pesantren | f  | %     |
|--|----|-------|
| a. Strongly disagree                                       | 1  | 3.03  |
| b. Disagree  | 2  | 6.06  |
| c. Agree   | 24 | 72.73 |
| d. Strongly agree  | 6  | 18.18 |
| Total  | 33 | 100   |

Table 6. Willingness of teachers to include PLH material in their learning at the pesantren

| I am willing to include environmental education material in the lessons I teach | f  | %     |
|---|----|-------|
| a. Strongly disagree  | 2  | 6.06  |
| b. Disagree   | 2  | 6.06  |
| c. Agree  | 21 | 63.64 |
| d. Strongly agree   | 8  | 24.24 |
| Total   | 33 | 100   |

Tables 4 to 6 explain that in general teachers support the development of the ecopesantren model for environmental learning in Islamic boarding schools. The goal is that students have knowledge and have a positive character towards the environment. As many as 96.97% of teachers stated that PLH needed to be given to students, then 90.91% of teachers stated their willingness to teach PLH in their learning and participate in the development of the ecopesantren model through this research. In addition, 87.88% of teachers expressed their willingness to include PLH material in the learning they taught and were willing to take PLH training to improve their competence in the environmental field. Teacher support plays a very important role in implementing PLH in Islamic boarding schools, this is in line with several other research findings which confirm that teacher support and participation is a factor for determining PLH and producing effective learning (Graves, 2000; Vanha, 2017).

### **Santri's Hope for the Ecopesantren Model**

Description of the expectations of students for the implementation of PLH in Islamic boarding schools, as many as 20 students (14.81%) expected PLH as a separate subject, 51 students (37.78%) wanted an integrated PLH approach to existing subjects, and 61 people (45,19) wanted PLH in the form of extra-curricular activities, and there were 3 students (2.22%) who said they did not know. Most of them realize that environmental materials are important to them, besides environmental learning gives them the opportunity to be more active in managing the environment around them. An illustration of this is shown in Table 7 below:

Table 7. The expectations of the students regarding the approach to implementing PLH in pesantren

| The approach to implementing environmental education that I want my students to do | f  | %     |
|--|----|-------|
| a. Environmental education as a separate subject                                   | 20 | 14.81 |
| b. Environmental education materials are embedded in existing courses              | 51 | 37.78 |

|  |     |       |
|--|-----|-------|
| c. Environmental education is provided in the form of extracurricular activities | 61  | 45.19 |
| d. No answer   | 3   | 2.22  |
| Total  | 135 | 100   |

The expectations of the students regarding the method of implementing PLH learning in pesantren are shown in Table 8 below, where most of the students chose the discussion method of 105 students or 77.78% while the rest wanted the application of PLH using the observation and experimental methods. Discussion activities according to the students allowed them to share with friends without fear of making mistakes. More than that, they can be tolerant, respect the opinions of friends, and collaborate to answer questions or environmental problems given by the teacher.

Table 8. The expectations of the students regarding the PLH learning method in Islamic boarding schools

| Learning methods of environmental education that I want in pesantren | f   | %     |
|--|-----|-------|
| a. Discussion  | 105 | 77.78 |
| b. Experimen   | 8   | 5.93  |
| c. Observation   | 20  | 14.81 |
| d. No answer   | 2   | 1.48  |
| e. Total   | 135 | 100   |

The following table 9 explains the expectations of the students about the learning media they expect in implementing PLH in the pesantren. Generally, 90 students chose the school environment or 66.67%, then used audio-visual 30 students (22.22%) and others chose hand outs, posters and picture books.

Table 9. The expectations of the students regarding the PLH learning media in Islamic boarding schools

| What form of environmental education learning media do you want | f   | %     |
|---|-----|-------|
| a. Hand out   | 6   | 4.44  |
| b. Poster   | 4   | 2.96  |
| c. Audio Visual   | 30  | 22.22 |
| d. Picture book   | 5   | 3.70  |
| e. School environment   | 90  | 66.67 |
| Total   | 135 | 100   |

Regarding the learning model they hoped to implement in the classroom, most of the students answered that whatever the model was, it could make them feel happy and not be depressed. It is further stated that students feel more comfortable learning outside the door in the school environment because according to them it can reduce the saturation of indoor learning which has been dominant so far.

## **CONCLUSION**

Based on the results of the needs analysis in the development of environmental learning models and tools in pesantren, it can be concluded that most of the teachers and students agree with the application of the ecopesantren model, but it must be adapted to the conditions and learning environment of the pesantren. Thus the ecopesantren model can be tested and developed further in pesantren. The model developed must accommodate the needs of students so that they can learn in a pleasant learning atmosphere and in accordance with the needs of environmental management in the pesantren. In order for this condition to be achieved optimally, both teachers and students need learning tools, especially textbooks that present relevant material for environmental management needs. Theoretically, the ecopesantren model and learning tools are suitable to be developed in Islamic boarding schools to encourage increased knowledge and participation of students in environmental management, as well as developing their positive character about the environment and sustainable management.

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