

Empowering Madrasah Plus Aliyah Darul Ulum Students in Utilizing Waste In To Useful Items

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ABSTRACT

Garbage is items thrown away by someone who are considered to be no longer usable. The waste problem must be addressed and anticipated by all elements and stakeholders, because if it is not taken seriously then waste can cause various kinds of problems in the community. This community service activity was carried out at Madrasah Aliyah Darul Ulum in Mumbusari village. Objectively, the main problems faced by partners are 1) Do not understand in the technical details of good and correct waste management, 2) Do not have skills in using waste, 3) There is no product from waste basic materials that has use value and economic value. The methods used are socialization to increase understanding about waste management, workshops on utilizing waste into useful items, discussions, questions and answers as well as providing education, awareness and a caring attitude towards the environment (environmental education). The results of this activity are increased knowledge, skills and products produced by partners that can provide beneficial, artistic and economic value.

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INTRODUCTION

Garbage is wet or dry goods produced by someone in certain activities or activities. In general, waste can be produced by individuals or groups in society. Practically, Fahmi (2021) explains that waste is something that is thrown away by someone who is considered to be no longer usable. Furthermore, Yudistira in Fahmi explained that besides disturbing the environment, garbage can also cause flooding, smell bad, disturb the view and global warming. To anticipate problems caused by waste, a community empowerment activity was carried out in the formal education community, namely the Private Madrasah Aliyah in the village of Mumbulsari. According to Siahan (2021), one form of this activity is mentoring and training the community in utilizing waste as a useful item.

The madrasah that was made a partner was established in 2021 under the auspices of the Pondok Pesantren Foundation in Jember district. This madrasa has 35 students consisting of boys and girls. The facilities owned are 2 classrooms, 1 office, courtyard, mosque and parking. The employees of this institution are 18 teachers, 2 administrators, and 1 school guard. In terms of educational level, Madrasah Aliyah students are the category of students with the highest education in the Islamic boarding school environment. Apart from Madrasah Aliyah, the educational institutions at the Islamic Boarding School consist of elementary schools (SD/MI/WADAS ULA) and junior high schools. Thus, as students who have a higher education compared to junior high school and elementary school students, it is hoped that they can act as a driving force and example in utilizing waste as goods that have benefits and value.

This institution was chosen as the location for community service activities because every day in this madrasa there is garbage, but it is not managed properly but is only thrown away and burned (Yulia: 2016). Based on the phenomenon in the field, the madrasah does not have a trash can placed in front of the school yard. So far, after sweeping the trash in the classroom and yard, it is immediately disposed of in a landfill in the form of an excavation behind the Islamic boarding school. In addition to these steps, the waste that has been stockpiled in the Final Disposal Site (TPA) is then burned without sorting it first to distinguish which waste can be recycled or not. All types of waste, including cardboard, plastic, drink bottles, paper and leaves, are put together and then burned. The effect of this action is to cause air pollution around the madrasa which can interfere with student teaching and learning activities because of the smoke and unpleasant odor arising from burning the waste. This action is certainly not appropriate because based on Fahmi's research results (2021) the types of inorganic waste in the form of cardboard, paper, used bottles and plastic can be recycled or reused as works of art or items of economic value.

Based on records from the Ministry of Environment and Forestry (KLHK) quoted by Agung (2021) explaining that in 2015 Indonesian people produce up to 64 tons of waste each year without recycling, while people who recycle are only around 5%. The waste problem certainly requires serious handling and specific steps are needed to provide understanding and skills to the community to utilize waste into useful and valuable goods. According to Putra (2010), this is referred to as a waste processing business or waste entrepreneur.

The problem of waste must be addressed and anticipated by all stakeholders in the madrasa, because if it is not anticipated and handled seriously, waste can cause various kinds of problems in the environment (Muhyidin: 2017). Objectively based on the results of observations and discussions with partners, that the main problems faced are related to waste, namely 1) Not understanding in detail the technical details of waste management properly and correctly, 2) Not having skills in utilizing waste which can provide use value and value, 3) there are no products made from waste materials that have use value and economic value. The steps taken according to Putra (2021) are socialization to increase understanding of waste management, increase skills in waste utilization, and provide education, awareness and attitude of caring for the environment (environmental education).

LITERATURE REVIEW

Garbage is goods that are no longer used by humans of various types and are discarded (Elamin, 2018). Meanwhile, according to Mulasari (2012) waste is something that is disgusting so it must be burned and disposed of properly. From this opinion it can be understood that waste is an item that is no longer used or not used by someone, whether it is disgusting or not. Based on the type of waste, it is divided into two, namely organic and non-organic waste (Sucipto, 2012). From these various types of waste, strategic efforts are needed so as not to disturb the community from a social, health and environmental perspective. In order for waste not to disturb the community environment, three steps are needed, namely limiting the generation of waste, recycling waste and reusing waste (Aulia, 2021).

In the context of waste utilization according to Sugiarti (2015) it can be done by reusing waste so that it does not cause environmental and health impacts on the community. Operationally the use of waste requires creativity and innovation so as to provide positive value both in terms of art and economic products that have commercial value. Efforts to process waste into economic goods as explained by Kurniaty (2011) waste can be used as a building mixture. Meanwhile, according to Putra (2010) waste can be used as a creative product with high commercial value. As for non-organic waste such as cloth, plastic and others can be used as accessories, bags, children's toys and other products.

MATERIAL AND METHOD

The methods for community empowerment activities in the formal education community are at the Madrasah Aliyah Plus Darul Ulum school which is attended by 35 students. This number is representative of each level of education starting from class X, XI and XII. Each class delegates five students to take part in empowerment activities carried out by the implementing team. The facilitators of community service activities are lecturers from the Muhammadiyah University of Jember. The team from Unmuh Jember consists of four people, namely two lecturers and two students. Community service activities will be carried out in December 2022, namely at partner locations. Practically, the community service method includes three steps, namely the preparation stage, the implementation stage and the evaluation stage after the activity. In more detail it is presented in table 1:

Table 1.
Methods for Implementing Community Empowerment Activities

Stage	Agenda	Indicator
Preparation	<ul style="list-style-type: none"> -Setting up administration and activity permits at partner locations - Explore information and determine solutions to partner problems - Arrange activity plans and schedules 	<ul style="list-style-type: none"> - Have activity permits from partners -There are solutions offered to partners for the problems faced. - There is a schedule of activities that will be transferred to partners
Implementation	<ul style="list-style-type: none"> - Dissemination of waste management properly and correctly - Workshop on the utilization of waste into goods of economic value - The practice of making handicrafts made from waste. 	<ul style="list-style-type: none"> - Increased partners' understanding of waste management - Increased partner skills in managing waste - There are products produced by partners from basic waste materials that have use and economic value.
Evaluation	<ul style="list-style-type: none"> - Assessment and measurement of increased knowledge, skills and product results produced by partners after the empowerment activities are carried out by conducting quizzes as well as pre-tests and post-tests. -Periodic monitoring of partners after empowerment activities. 	<ul style="list-style-type: none"> - There is data from the results of evaluations carried out which provide information about an increase in knowledge, skills and product results produced by partners. - Monitoring is carried out to find out the sustainability of the post-activity program and to find out the consistency of partners in managing waste on an ongoing basis at partner locations.

RESULT AND DISCUSSION

The results of community empowerment activities are practically an increase after activities carried out at partner locations. The implementation of community empowerment activities was carried out for 3 days in an intensive manner, while the mentoring activities were carried out for 2 months, namely November and December 2022. In accordance with the schedule on the first day, knowledge was increased about the advantages of having skills in utilizing used goods into useful items. On the second day, a results-based workshop was held by providing examples, tutorials and demonstrations of turning waste into valuable goods. As for the third day, students practice by directly making used items or trash into useful items. This activity was attended by 35 students from representatives of each class and accompanied by arts and culture teachers and the head of student affairs. However, before carrying out this stage, students must take a pre-test to determine the student's initial knowledge. The pre-test obtained data as described in table 2:

Table 2.
Knowledge Pree Test Results Prior to Socialization of Waste Management Activities.

Knowledge	Frekuensi	Persentase (%)
Good	0	0
Pretty good	5	15
Not good	30	85
Amount	35	100

Based on the data presented in table 2, it provides information that prior to the empowerment activities, most of the partners had minimal knowledge of waste management. Likewise knowledge about managing waste into useful goods is also still low, because in percentage terms around 85% have poor knowledge of the benefits of waste in the madrasah environment. Meanwhile, partners who understand waste management only reach 15 percent of the target number of activities in partner locations. Meanwhile, after the empowerment activities were carried out in terms of knowledge, the partners experienced a significant increase as explained in the table 3:

Table 3.

Knowledge Post Test Results After the Socialization of Waste Management Activities

Knowledge	Frekuensi	Persentase
Good	26	86
Pretty good	8	24
Not good	1	3
Amount	35	100

Based on the data in table 3 above, it is explained that after the empowerment activities partners' knowledge of waste utilization and management has increased. It was shown that around 86% of partners had good knowledge from the post test assessment, while only 8 people had good knowledge with a percentage of 24% while partners who had poor knowledge were only 3% because they did not participate in the activity to completion. This presentation certainly provides information that empowerment activities for partners have good impacts and benefits because quantitatively the knowledge of partners increases from having poor knowledge to being good with an achievement of 86%.

In connection with increasing partner skills (skills) in utilizing waste into useful items and having value, it can be seen from the documents obtained when observing before the activity. Documentation findings from partner locations show that all waste is piled up in landfills in the form of excavations behind Islamic boarding schools and then burned. This can be seen in the image 1:



Figure 1.

Final Disposal Site (TPA) at Partner Sites

Based on the picture above, it can be understood that all types of waste, both organic and inorganic, are disposed of entirely without prior sorting. Trash is piled on the ground which is left scattered which is then burned. This of course disturbs the view and causes environmental pollution if done continuously. However, after conducting outreach activities and increasing skills, the behavior patterns of partners experience significant changes (Elamin: 2018). This is according to the documentation obtained at the partner location as shown in the image 2:



Figure 2.
Waste Segregation at Partner Location

Based on Figure 2, it provides information that after the activity is carried out, the partners' skills increase, namely a) Partners have knowledge and can classify types of waste which are then sorted separately. b) partners sort waste based on its type, namely waste in the form of used cardboard, used sacks, paper stored and stacked in a small warehouse at the partner's location while waste in the form of bottles made of plastic is placed in sacks and stored in the warehouse too. c) Garbage that has been collected once a month is used for handicrafts or sold at garbage dumps.

This certainly shows an increase in partners' knowledge and skills in managing and utilizing waste properly and having problem solving abilities for their environment (Nirmalasari: 2018). In addition to this, partners have skills in utilizing waste that has no use value into products originating from paper, used bottles, and plastic. This is reflected in service activities that can increase the imagination, creativity, skills and artistic soul of partners (Septiani: 2019). This argument is supported by the results of products produced by partners as documented in the following figure 3:



Figure 3.

Products of Partner Creativity and Art in Empowerment Activities

Based on figure 3 it can be understood that partners produce products in the form of creativity and art. Creative products produced by partners include children's toys in the form of toy cars made from used sandals and aqua bottles, miniature motorcycles made from used matches and miniature minimalist houses made from used cardboard. The products produced by partners are in the form of art, namely kentongan and flutes made of bamboo.

CONCLUTION AND RECOMMENDATION

Community empowerment activities in utilizing waste as useful goods are carried out through outreach, workshops, simulations and mentoring. The stages carried out include preparation, implementation and evaluation of planned activities. Practically, the results of community empowerment activities are an increase in partners' knowledge of waste processing and partners have various skills in utilizing waste as valuable goods that contain economic and artistic elements. Apart from that, there are products produced by partners after participating in empowerment activities. Another positive impact of this activity is the creation of a clean environment, waste management properly and correctly and increasing environmental comfort. Practically, waste can be used as children's toys, miniature minimalist houses, flower vases, or tissue boxes which are useful and provide artistic value.

The recommendation for partners is to continue to increase their knowledge and skills in utilizing waste into useful items. Apart from that, partners can seriously handle the waste problem in the school environment by providing rubbish bins in front of each class. This needs to be done to prevent students from throwing rubbish carelessly. To improve students' skills, an art work competition made from waste can be held once every semester. These recommendations implicitly provide environmental care education to students and train students' sensitivity to the surrounding environment.

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