Cultivating a Caring Attitude to the Environment and Waste Management in Public Elementary School (SDN) Godog, Garut, Indonesia

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Abstract

Environmental problems are often encountered around us, but not everyone feels that these problems must be solved together. The holding of environmental education is expected to make community groups more concerned about cleanliness and health in their surrounding environment. This form of community service at SDN Godog 1 – 2 is carried out due to the fact that the school environment looks unorganized and the lack of waste management around the school. School streets that should look neat and clean are not visible, even around this school road is used as a dumping ground for scattered garbage without any trash cans. The method used in the implementation of this community service is the follow-up study method with a participatory approach. By providing material on the importance of managing waste, proper waste sorting and counseling on the dangers of waste that has polluted the environment. Students are taught directly the practice of managing waste using used bottles as handicrafts, cleaning the school environment and preserving the environment. By carrying out education about caring for the environment, it is hoped that students can play an active role in protecting the school environment by taking part in the practice of cleaning the environment, sorting out used snacks and reducing the use of plastic waste that has been rampant and polluting the surrounding environment. Because with the creation of an attitude of caring for the environment at an early age, it is hoped that environmental problems will reduce this waste and make a generation that loves environmental cleanliness.

Keywords: Care for the environment, Waste management, sorting waste

1. Introduction

Garbage is one of the environmental problems resulting from human activities, both individuals and groups that must be controlled, because sooner or later the problem of waste management will get bigger in proportion to the increasing number of people (Hoornweg and Bhada-Tata, 2012; Fagnani and Guimarães, 2017; Grodzińska-Jurczak, 2003). So far, the waste management system only collects, transports and disposes of to the Final Processing Site (TPA) (Sekito et al., 2013; Desa et al., 2013; Zhang et al., 2011). Meanwhile, waste management at the final processing site has not been fully completed and is still the task of the government and the community. so that all the waste in the TPA does not pile up too much.

By holding waste management education or waste for students in the school environment (Meidiana and Gamse 2010; Demirbas, 2011). It is hoped that they can raise awareness that waste what we produce must be managed and minimized as small as possible so as not to pollute the surrounding environment (Putri et al., 2020; Rautela et al., 2021). Not only in the school environment, but this caring attitude towards environmental problems is also expected to be beneficial for the students' family environment and can be applied in everyday life (Rada et al., 2016; Hantoko et al., 2021). Implementing habits as early as possible can bring big changes for future generations who are more concerned about the environment and understand how to sort waste by type, so that it can be processed into compost (Widayat et al., 2021; Jiang et al., 2021).

Schools can act as waste banks with the active role of principals, teachers and staff (Raharjo et al., 2017; Budihardjo et al., 2019). They will maximize efforts to minimize waste in the school environment, so students will indirectly be encouraged to more sensitive to environmental cleanliness (Mukminin, 2014; Jeramat et al., 2019). The caring for the environment can be done using the methods of moral knowing, moral feeling and moral doing which are being practiced at SDN 3 Bancarkembar, Banyumas district. Which is now more sensitive to the school environment and creates a comfortable and orderly teaching and learning process.
A comfortable place is a place that is free from garbage and all kinds of disturbances that can cause disease. Especially during a pandemic like this which demands that all those present in schools, both teachers and students, must be in a healthy body condition to participate in teaching and learning activities (Tan, 2001; Vanapalli et al., 2021). Therefore, the cleanliness of the school environment must be a concern for all involved in the continuity of teaching and learning activities.

Based on the results of interviews with the principal of SDN Godog 1-2 which was carried out on October 5, there were 352 students consisting of grades one to six each, there were 2 classes, namely class A and B who still did not understand about waste management and disposing of garbage, without sorting it out first. The lack of a caring attitude towards the environment and ignoring the garbage that is scattered around the road near the school makes garbage pile up without a container to hold the garbage. Pedestrians or motorcyclists are often seen throwing their trash on the road carelessly (see Figure 1).

![Figure 1. The road ahead of SDN Godog 1-2](image1)

The purpose of this community service is to instill an attitude of caring for the environment and being able to manage waste wisely, so that waste does not become an environmental problem that can invite diseases around the school environment. Especially in the rainy season which can cause mosquitoes to breed in the pile of garbage and cause unpleasant odors. As for the efforts made by the team in the service program, namely by providing socialization about the importance of sorting waste, reducing the use of single-use plastic and implementing environmental clean-up habits.

2. Methodology

This community service will be held on October 8, 2021 at SD Negeri Godog 1-2 which is located on Jl. Ahmad Yani Timur, Karangmulya, Kec. Karangpawitan, Garut Regency, West Java, Indonesia (See Figure 2), with a target program of 92 children from grades 4 to 6.

![Figure 2. SDN Godog 1 – 2](image2)
The method used to obtain the data is by observation, socialization and the practice of cleaning the environment around the school. Observations were carried out by asking questions to the principal of SDN Godog 2, namely Mrs. Pupu, S.Pd to obtain a description of the condition of the students, which were the objectives of the activity and to socialize the service plan to be carried out in order to determine the time and other needs that must be prepared to support the implementation of the event. Then practice cleaning the school environment to educate children directly which is interspersed with some games.

3. Results and Discussion

The activity is held on Friday and introduces students to JUMSIH or Clean Friday, which is now being implemented by the school as an embodiment of a program to love the school environment in order to create a healthy and clean environment. The event began with a speech from the principal and continued with morning exercises as a warm-up before the main event started. The presentation of the material was carried out in the middle of the ceremonial field with demonstrations of several examples of waste that can be grouped into several types of waste including, separating organic and non-organic waste which students often encounter in school canteen snacks.

Gina Nuraini as a speaker gave an example of how to sort waste and dispose of it in a trash can according to its type, then followed by students who tried to practice it directly. Not only sorting waste, the speaker also explained the dangers of garbage which has now polluted the soil and water around them, which is dangerous for all living things including animals and plants that live in symbiosis with one another.

Students are also given an understanding to always use environmentally friendly materials compared to using plastic. Because plastic is a material that is difficult to decompose and becomes a big problem because it is cheap and easy to get, so plastic waste is very much found around schools. They are also encouraged to bring their own drinking supplies from home, this is an action that can reduce the waste of used drinking bottles that they buy every day. After the material was finished, they continued with making creations using used bottles that they had brought home before. The participants' practice of making art from trash can be seen in Figure 3.

After the craft was finished, the event was closed by holding a Clean Friday in the school environment, starting with cleaning the classroom, terrace, field and around the water flow in the school. Not only students who practice JUMSIH but teachers and administrative staff also take part in practicing and supervising the JUMSIH program, they work together to clean the school environment. Although there are still some students who play around in the implementation of this JUMSIH, the event can be carried out quite conducively and the garbage that was scattered and mixed is now starting to be neatly arranged (See Figure 4).
4. Conclusion

After the socialization regarding waste management, now students are not only studying in the academic field, but they are also receiving moral education about caring for the environment. Participate in managing waste as well as possible as they have practiced at school, to maintain cleanliness and health in the environment where they study.

Not only the role of teachers and school staff, but the participation of parents also needs to play an active role in forming this habit. Because the environment is very influential on the growth of the child's character, parents should also set an example for their children by applying it directly at home. So that future generations can protect the environment and the problem of waste is no longer a burden on the shoulders of the government alone, all people who have donated waste must also participate in solving problems and managing their waste as well as possible.

References.

Budihardjo, M. A., Wahyuningrum, I. F. S., Muhammad, F. I., & Pardede, R. (2019, November). The role of waste banks in the reduction of solid waste sent to landfill in Semarang, Central Java, Indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 337, No. 1, p. 012028). IOP Publishing.

Demirbas, A. (2011). Waste management, waste resource facilities and waste conversion processes. Energy Conversion and Management, 52(2), 1280-1287.

Desa, A., Ba’yah Abd Kadir, N., & Yussooff, F. (2012). Waste education and awareness strategy: towards solid waste management (SWM) program at UKM. Procedia-Social and Behavioral Sciences, 59, 47-50.

Fagnani, E., & Guimarães, J. R. (2017). Waste management plan for higher education institutions in developing countries: The Continuous Improvement Cycle model. Journal of Cleaner Production, 147, 108-118.

Grodzińska-Jurczak, M. (2003). The relation between education, knowledge and action for better waste management in Poland. Waste management & research, 21(1), 2-18.

Hantoko, D., Li, X., Pariatambly, A., Yoshikawa, K., Horttanainen, M., & Yan, M. (2021). Challenges and practices on waste management and disposal during COVID-19 pandemic. Journal of Environmental Management, 286, 112140.

Hoornweg, D., & Bhada-Tata, P. (2012). What a waste: a global review of solid waste management. Urban development series;knowledge papers no. 15. World Bank, Washington, DC. World Bank. https://openknowledge.worldbank.org/handle/10986/17388 License: CC BY 3.0 IGO.

Jeramat, E., Mulu, H., Jehadus, E., & Utami, Y. E. (2019). Instilling an attitude of caring for the environment and responsibility through science learning in junior high school students. Journal of Komodo Science Education, 1(2), 24-33.

Jiang, P., Van Fan, Y., & Klemes, J. J. (2021). Data analytics of social media publicity to enhance household waste management. Resources, Conservation and Recycling, 164, 105146.

Meidiana, C., & Gamse, T. (2010). Development of waste management practices in Indonesia. European journal of scientific research, 40(2), 199-210.

Mukminin, A. (2014). Strategies for character building care for the environment in independent Adiwiyata schools. Ta’dib: Journal of Islamic Education, 19(02), 227-252.

Putri, H. E., Maraputra, A. N., Efna, M. J., Permana, Y., Martiningtyas, M. P., Listiyanti, P. A., & Wulandari, H. (2020, March). Improvement of student awareness on cleanliness and environmental health through stop motion video technology. In Journal of Physics: Conference Series (Vol. 1521, No. 4, p. 042042). IOP Publishing.

Rada, E. C., Bresciani, C., Girelli, E., Ragazzi, M., Schiavon, M., & Torretta, V. (2016). Analysis and measures to improve waste management in schools. Sustainability, 8(9), 840.

Raharjo, S., Matsumoto, T., Ihsan, T., Rachman, I., & Gustin, L. (2017). Community-based solid waste bank program for municipal solid waste management improvement in Indonesia: a case study of Padang city. Journal of Material Cycles and Waste Management, 19(1), 201-212.

Rautela, R., Arya, S., Vishwakarma, S., Lee, J., Kim, K. H., & Kumar, S. (2021). E-waste management and its effects on the environment and human health. Science of The Total Environment, 145623.

Sekito, T., Prayogo, T. B., Dote, Y., Yoshitake, T., & Bagus, I. (2013). Influence of a community-based waste management
system on people's behavior and waste reduction. Resources, Conservation and Recycling, 72, 84-90.

Tan, A. G. (2001). Elementary school teachers' perception of desirable learning activities: a Singaporean perspective. Educational Research, 43(1), 47-61.

Vanapalli, K. R., Sharma, H. B., Ranjan, V. P., Samal, B., Bhattacharya, J., Dubey, B. K., & Goel, S. (2021). Challenges and strategies for effective plastic waste management during and post COVID-19 pandemic. Science of The Total Environment, 750, 141514.

Widayat, P., Hamuddin, B., & Syofya, H. (2021, March). Waste Bank: Model and Education of Organic and Non Organic Waste Processing in Riau Province. In First International Conference on Science, Technology, Engineering and Industrial Revolution (ICSTEIR 2020) (pp. 372-377). Atlantis Press.

Zhang, N., Williams, I. D., Kemp, S., & Smith, N. F. (2011). Greening academia: Developing sustainable waste management at Higher Education Institutions. Waste management, 31(7), 1606-1616.