

## Utilization of Waste to Minimize Environmental Pollution and Increase Income Through Creativity at SDN 5 Peninjoan

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### Volume

5

### Issue

2

### Edition

November

### Page

494-499

### Year

2024

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### Article History

Submission: 12-02-2023

Review: -

Accepted: 12-10-2024

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### Keyword

Waste Issues;

Creativity;

Education;

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### How to cite

Laksmi P., K. W., Aris Widiana, N., P. (2024). Utilization of Waste to Minimize Environmental Pollution and Increase Income Through Creativity at SDN 5 Peninjoan. *Jurnal Pengabdian Masyarakat*, 5(2), 494-499  
<https://doi.org/10.32815/jpm.v5i1.1632>

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### Abstract

**Purpose:** This research paper aims to address waste management issues in Peninjoan Village, Tembuku District, Bangli Regency, by educating elementary school students on effective practices. This initiative is significant for promoting environmental sustainability and community development.

**Method:** The study uses an educational intervention at SDN 5 Peninjoan, collecting data through workshops and observational feedback. Qualitative analysis assesses students' understanding and their ability to transform waste into useful items.

**Practical Applications:** The findings demonstrate practical applications, including improved community cleanliness, increased environmental awareness, and the development of marketable products, enhancing the income potential for families.

**Conclusion:** Educating students on waste management fosters creativity and responsibility, allowing them to convert waste into valuable items. This research emphasizes the importance of integrating waste management education into school curricula to tackle environmental challenges effectively.



## Introduction

Essentially, waste is a material discarded from human activities or natural processes. According to Law Number 18 of 2008 on Waste Management, waste is the residue of human daily activities and/or natural processes in solid form (Apriliana et al., 2022; Kurniawati & Renjani, 2023; Rahim et al., 2023). According to the definition by the World Health Organization (WHO), waste is something that is unused, not used, not liked, or something discarded that comes from human activities and does not occur naturally (Dobiki, 2018). Waste can be classified into two categories based on its type: inorganic waste and organic waste. Organic waste is waste that comes from plants and is easily decomposed by nature. Inorganic waste is waste that is difficult to decompose naturally and requires special management. Research conducted by Jenna Jambeck shows that Indonesia is the second-largest producer of plastic waste in the world after China (Jambeck et al., 2015). Besides having a negative impact on the environment, plastic also negatively affects health (Feriansyah et al., 2024; Raharjo et al., 2022). One form of inorganic waste management is by utilizing inorganic waste such as used soap packaging, plastic bags, and detergent packaging into new economically valuable products like bags and wallets, which can then be sold to improve the financial welfare of the community (Khilmi et al., 2023; Marshush et al., 2023).

The waste problem is an issue that often occurs not only in Indonesia but also in developed countries (N. P. M. Y. K. Dewi & Pradhana, 2022). Developed countries have implemented various methods to address the increasing waste problem. As the population grows, the volume of waste generated from human activities also increases (Winatha et al., 2021). The impact of household waste on the environment needs the government's attention (N. M. N. B. S. Dewi, 2021).

Unmanaged waste causes negative impacts, both direct and indirect. In addition to becoming a breeding ground for diseases, piles of unmanaged waste can be a factor in natural disasters like flooding. This waste can be reduced through proper management. Waste management can be conducted using the 3R concept (reduce, reuse, recycle) (Amien et al., 2023; Kerdiati & Darmastuti, 2023). With this concept, the community does not just discard waste but also utilizes it into useful items. This concept is very suitable for application in developing countries, which, due to technological limitations, must empower the community as actors generating waste.

Peninjoan Village is one of the villages located in Tembuku District, Bangli Regency. This village consists of eight hamlets: Manikaji, Pulasari Kangin, Pulasari Kawan, Puraja, Kebon Kaja, Kebon Kangin, Karangsuung Kaja, and Karangsuung Kelod. The natural potential of Peninjoan Village lies in the plantation sector; however, not all residents focus on this sector. The issue found in Peninjoan Village is the waste problem. Waste issues will continue to arise if effective solutions are not found to address them. Low awareness and the difficulty of changing the community's mindset regarding proper waste management act as barriers to resolving this waste problem. The lack of waste disposal sites is a primary factor that causes residents to prefer to accumulate waste and then burn it behind their houses.

Waste management in Peninjoan Village uses the waste bank method. A waste bank is a place to save waste that has been sorted according to its type and still has economic value. In practice, a waste bank can reduce the high volume of waste in the community and at the final disposal site (TPA). This waste bank method is directed by the village head, where waste is sorted into organic and inorganic types and exchanged for money every few weeks. The money received is not in cash but in the form of a savings book. Although this method has been implemented, it is still not effective as waste management does not appear optimal. Therefore, providing education to children about good and beneficial waste management is essential to change their perspective on waste from indifference to greater concern, thus reducing the waste problems occurring in Peninjoan Village.

## **Method**

The initial method conducted was to survey at the Peninjoan State Elementary School 5 to gather information about the environment surrounding the school. Then, coordination was carried out with the school principal regarding the planned work program, which involved conducting a socialization activity within the school environment. This socialization activity was only provided to students in grades 4, 5, and 6. The selection of these grades was based on the understanding that students in grades 4, 5, and 6 were well-prepared to receive the material and had a basic understanding of their surroundings. After coordinating with the principal, we explained the objectives and benefits of conducting this socialization activity, which aimed to teach elementary students about the benefits of proper waste management and how to creatively turn waste into useful and valuable items.

The current problem faced is the lack of awareness among children regarding the benefits of leftover waste that is not used. Therefore, we believe that providing materials and practical sessions on managing both organic and inorganic waste is an appropriate way to address the waste problem.

This socialization activity took place on January 21, 2023, and was attended by around 40 students divided into two different classes. The activity was divided into two sessions: the first session was a 30-minute presentation on the culture of saving presented by Pande Oka. The second session involved a 1-hour presentation on waste management presented by Ngakan Putu Aris. After the presentations, a question-and-answer session was conducted to encourage interaction between the students and us, allowing them to ask questions as they wished. This was followed by a practical activity where the students were taught how to make a piggy bank from recycled materials to save costs and reduce waste. After the practical session, a group photo was taken with the students. The purpose of this socialization activity was to enhance the enthusiasm of the students of Peninjoan State Elementary School 5 to manage unused waste so that it could be beneficial for personal use as well as for the wider community.

## **Result**

The implementation of the socialization activity providing material on waste management to the students of Peninjoan State Elementary School 5 showed that many students still did not understand waste management. Waste that is left unmanaged can lead to negative impacts on the surroundings. Direct negative impacts include a degraded environment, unsanitary conditions, unpleasant odors, and the potential to become a source of diseases that could affect the health of residents (Trisnawati & Khasanah, 2020). During the question-and-answer session, only a few students were actively asking and answering questions due to feelings of low self-confidence or fear of giving incorrect answers. However, after the material was presented, the students began to understand waste management and became more active in asking and answering questions.

After the Q&A session, the activity continued with a craft-making session. The crafts made were piggy banks constructed from easily obtainable recycled materials that are cost-effective. The students were very enthusiastic about making these crafts, displaying great creativity in their designs. These piggy banks can be used to store money or can be sold as a way to earn additional income.

After this socialization activity, the students of SDN 5 Peninjoan are expected to have a better understanding of waste management, thereby creating a positive impact on their surroundings and being able to utilize waste to create crafts that can be sold to enhance their income and creativity. At the elementary school age, children often imitate and find it easier to remember what adults do; therefore, we provided them with education on waste management through visual aids to facilitate their understanding. The benefits gained from this program include a growing awareness among the students about the importance of protecting the environment and consistently managing waste into useful items to reduce

waste issues in the Peninjoan Village community.

*Figure 1.* Providing material on creativity in waste management to the students



*Figure 2.* The process of practicing making crafts from recycled materials



*Figure 3.* The results of practicing making crafts from recycled materials



*Figure 4.* Group photo with the students



## Discussion

The students showed a great lack of knowledge about waste management before to the socializing event, thereby indicating insufficient awareness on how to correctly handle

garbage. The surroundings were a clear mirror of this ignorance, with garbage bins overflowing with badly sorted rubbish and litter scattered across several regions suggesting a great demand for knowledge on the topic. Still, a dramatic change started to take place after socializing. The pupils not only started to understand the fundamental ideas of waste management but also started to become more conscious of their obligation to clean their surroundings and dispose of waste depending on its particular kind. Their perspective on waste changed fundamentally with this fresh awareness.

Furthermore, their drive to pursue artistic activities changed really dramatically. The pupils first lacked excitement for craft-making, mostly because they lacked direction and motivation. After the socializing, though, they showed a contagious enthusiasm for making crafts and actively engaged in useful activities with fresh vitality. This change in perspective emphasizes not only the success of the socializing but also the possibility for kids to become active participants of their surroundings, so embracing responsibility in waste management and innovation.

### Conclusion

The socialization of creativity in waste management is expected to enhance the awareness of the students at Peninjoan State Elementary School 5 regarding waste management and encourage them to be creative in making crafts from recycled materials that have high market value. This initiative aims to increase income and reduce waste problems occurring in Peninjoan Village. It is hoped that the children who have participated in this socialization will bring a positive impact to their surroundings and serve as a guide for the community. Thus, this socialization will not merely be an ordinary event but will contribute to the village's development in the future.

### Acknowledgements

The author expresses gratitude to the village head and the community of Peninjoan Village for the opportunity to conduct community service activities in the village. The author also thanks the principal of Peninjoan State Elementary School 5 for allowing the implementation of the socialization program on creativity in waste management, as well as the enthusiastic students who participated in the activities. Additionally, the author appreciates the fellow students who assisted in executing the program.

### Reference

- Amien, E. R., Novita, D. D., Tenaumbanua, M., & Wisnu, F. K. (2023). Pengenalan Konsep 3R (Reduce, Reuse, Recycle) dalam Peningkatan Kesadaran Lingkungan di SD Khoiru Ummah Bandar Lampung. *Jurnal Pengabdian Dan Pemberdayaan Masyarakat Inovatif*, 2(1), 7–12. <https://doi.org/10.70110/jppmi.v2i1.10>
- Apriliansa, A., Wahdini, N., Pramaningsih, V., Suhelmi, R., & Daramusseng, A. (2022). Pendampingan Masyarakat Dalam Meningkatkan Pengetahuan Pemilahan Sampah Di Kelurahan Selili, Kecamatan Samarinda Ilir. *Selaparang: Jurnal Pengabdian Masyarakat Berkemajuan*, 6(1), 336. <https://doi.org/10.31764/jpmb.v6i1.7315>
- Dewi, N. M. N. B. S. (2021). Analisa Limbah Rumah Tangga Terhadap Dampak Pencemaran Lingkungan. *Ganec Swara*, 15(2), Article 2. <https://doi.org/10.35327/gara.v15i2.231>
- Dewi, N. P. M. Y. K., & Pradhana, I. P. D. (2022). Pengelolaan Sampah Anorganik Menjadi Nilai Rupiah Pada Generasi Muda Di Desa Jungutbatu. *Jurnal Abdinus: Jurnal Pengabdian Nusantara*, 6(1), 251–257. <https://doi.org/10.29407/ja.v6i1.15757>
- Dobiki, J. (2018). Analisis Ketersediaan Prasarana Persampahan Di Pulau Kumo Dan Pulau Kakara Di Kabupaten Halmahera Utara. *Spasial*, 5(2), Article 2. <https://doi.org/10.35793/sp.v5i2.20803>
- Feriansyah, W., Permana, H. J., Salim Faqih, R. A., Ridwan, M., & Lomo, P. W. (2024). Analisis Dampak Impor Sampah Plastik dari Amerika terhadap Masyarakat dan

- Lingkungan Hidup di Indonesia Ditinjau dalam Pasal 29 Ayat 1 Huruf A dan B UU 18. *Indonesian Journal of Law and Justice*, 1(3), 13. <https://doi.org/10.47134/ijlj.v1i3.2114>
- Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., Narayan, R., & Law, K. L. (2015). Marine pollution. Plastic waste inputs from land into the ocean. *Science (New York, N.Y.)*, 347(6223), 768–771. <https://doi.org/10.1126/science.1260352>
- Kerdiati, N. L. K. R., & Darmastuti, P. A. (2023). Penerapan Konsep 3r (Reduce-Reuse-Recycle) Untuk Material Interior Berkelanjutan. *Viswa Design: Journal of Design*, 3(2), 95–104. <https://doi.org/10.59997/vide.v3i2.2910>
- Khilmi, M., Azizah, K., & Hermawan, H. (2023). Pengelolaan Sampah Anorganik Rumah Tangga sebagai Media Tanam pada Masyarakat Desa Bumirejo dalam Program KPM MBKM-Br UNSIQ. *Jurnal Abdimas-Hip Pengabdian Kepada Masyarakat*, 4(2), 77–84. <https://doi.org/10.37402/abdimaship.vol4.iss2.245>
- Kurniawati, R. D., & Renjani, S. (2023). Determinan Perilaku Pengelolaan Sampah Rumah Tangga Desa Jelegong Kabupaten Bandung. *Promotor*, 6(2), 115–120. <https://doi.org/10.32832/pro.v6i2.233>
- Marshush, U. H., Abubakar, E., & Rahmatullah, A. (2023). Pengelolaan Sampah Anorganik di Kelurahan Tlogosari Kulon Kota Semarang. *Ajad: Jurnal Pengabdian Kepada Masyarakat*, 3(3). <https://doi.org/10.59431/ajad.v3i3.223>
- Raharjo, A., Pramana, I. M. B., & Saryana, I. M. (2022). Dampak Negatif Sampah Anorganik Karya Cipta Fotografi Ekspresi. *Retina Jurnal Fotografi*, 2(2), 222–236. <https://doi.org/10.59997/rjf.v2i2.1785>
- Rahim, F. K., Sudasman, F. H., Listyana, A., Hidayat, A. R., & Putri, D. O. (2023). Kegiatan Gerak Sajadah Sebagai Intervensi Penanggulangan Permasalahan Sampah Di Kabupaten Cirebon. *Jurnal Pemberdayaan Dan Pendidikan Kesehatan (JPPK)*, 2(02), 76–87. <https://doi.org/10.34305/jppk.v2i02.745>
- Winatha, K. R., Meinarni, N. P. S., Wiryatama, I. B. D., Wiryatama, I. B. K. D., & Pradnyana, I. G. M. S. (2021). Sosialisasi Pengolahan Sampah Non Organik di SMP Negeri 2 Blahbatuh, Blahbatuh Gianyar-Bali. *Jurnal Widya Laksmi: Jurnal Pengabdian Kepada Masyarakat*, 1(1), Article 1. <https://doi.org/10.59458/jwl.v1i1.1>