

Training on the Utilization of Used Cans for Environmental Awareness for Karang Taruna

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Article Info	Abstract
Article history: Received: July 12, 2024 Accepted: October 11, 2024 Published: January 27, 2025 Keywords: Environmental awareness Go green Karang taruna cikoko timur Painting training Used cans This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License © 2025 Bubungan Tinggi: Jurnal Pengabdian Masyarakat	Residential areas face issues related to waste from used items, including discarded cans due to household consumption. Activities that involve direct participation are required to enhance environmental awareness among the community. This training is a tangible community service program from the Faculty of Fine Arts and Design at Universitas Trisakti, conducted for the youth of Karang Taruna Cikoko Timur RW 02, Cikoko Village, Pancoran Subdistrict, South Jakarta. The training was aimed at 10 (ten) members of Karang Taruna who were directly involved in community empowerment activities in the targeted area. The training was carried out using the PAR (Participatory Action Research) method, with direct painting training on used cans under the guidance of an instructional team. The stages of the can painting training were (1) Cleaning, (2) Coloring, and (3) Protecting. The results of this training included painted used can products created by each participant, along with learning outcomes such as (1) Understanding the characteristics of can packaging, (2) Recognizing colour composition, (3) Practicing patience and diligence, (4) Developing creativity, and (5) Raising environmental awareness by utilizing used waste found around the living area.
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INTRODUCTION

The environmental problem caused by the accumulation of waste is one of the main environmental issues in Indonesia. The increasing amount of waste from daily household consumption should concern everyone. Poorly managed waste can disrupt the beauty of cities (Mafriana et al., 2023). Waste is categorized into organic and inorganic (Prastawa et al., 2024; Soraya & Zubaidah, 2023). Unlike organic waste, which decomposes naturally, inorganic waste—including plastic, cans, metal, glass, and paper—does not break down easily.

Cans are one type of inorganic waste that decomposes slowly. Unprocessed discarded cans will accumulate and pollute the environment (Sal & Sembiring, 2024). The cans used in this training are food packaging like biscuit tins, commonly found in the residential area of Cikoko Timur II. These discarded cans were turned into products with new functional values, such as flower vases, jewelry holders, water containers, and more. As a manufactured product, cans are made from steel sheets that undergo manufacturing processes such as pressing, roll forming, welding, and seaming. Cans used for metal packaging are typically made from electronic tinplate (Riyanti et al., 2020). The products

resulting from this training are expected to be one of the solutions for reducing inorganic waste in residential areas ([Adisurya et al., 2020](#)).

Karang Taruna is a social organization that serves as a means for community members, especially youth, to develop social responsibility and awareness at the village and sub-district levels. The vision of Karang Taruna is to foster and build youth creativity sustainably, creating bonds of brotherhood and solidarity while partnering with organizations and institutions for creative development ([Arif & Adi, 2014](#)). Through its activities, members of Karang Taruna are expected to become agents for improving social welfare in their communities.

Karang Taruna Cikoko Timur RW 02 in South Jakarta was selected as a partner for this community service program organized by the Faculty of Fine Arts and Design at Universitas Trisakti. This is because Karang Taruna operates in a densely populated residential area with a high potential for unprocessed waste cans. The training targeted 10 youth members of Karang Taruna aged 15-18, with a high school education level and middle to lower socioeconomic status. These youth need self-improvement skills and the ability to create products with market value, enabling them to engage in independent entrepreneurship while addressing environmental issues by processing inorganic waste, such as used cans, in their residential area.

METHODS

This community service activity was conducted using the Participatory Action Research (PAR) method in three stages:

1. Preparation: This phase involved four steps: (1) The team conducted a field survey to identify problems and decide on the products to be made. (2) The team prepared product samples for the participants to make. (3) Karang Taruna gathered used cans from the surrounding area. (4) Tools and materials were prepared at the training location.
2. Implementation: The training process consisted of three stages: (1) Opening: Introduction of the team and explanation of the product to be made. (2) Training: Participants engaged in the training process, assisted by instructors. (3) Evaluation: The head instructor provided feedback on the training outcomes.
3. Evaluation and Reporting: At this stage, the team evaluated the overall activity and compiled a report. Painting Used Cans - Step-by-Step Training

During the training implementation, the painting of used cans was carried out directly through the following steps:

1. Cleaning:
The initial step involved checking whether the cans were clean and ready for painting.
2. Creating Motifs:
Clean cans were given a base coat using oil paint to prepare them for sketching with pencils or permanent markers.
3. Colouring:
This crucial step involved applying color to the designs drawn on the cans.
4. Protection:
A final protective layer was applied to ensure the colors would not fade quickly.

These steps contributed to producing attractive handicrafts from used cans. A mentoring approach was used throughout the PkM activity, with the PkM instructors providing guidance and assistance to participants. At this stage, participants discussed challenges and explored solutions ([Ariani et al., 2023](#)). Discussions regarding difficulties and problem-solving methods were conducted during the mentoring process ([Jasifi et al., 2023](#)).

RESULTS AND DISCUSSION

Inorganic waste originates from non-biological materials and synthetic products. It does not decompose quickly and cannot break down naturally. Inorganic waste can be managed by transforming it into functional and marketable products such as household decorations and artwork ([Suud et al., 2023](#)).

Continuous outreach and education on waste utilization are essential to encourage communities to manage and reuse waste effectively ([Ulfah, 2022](#)). Introducing the "go green" concept is vital in addressing current environmental issues through environmental care, conservation, and restoration efforts ([Susilawati et al., 2023](#)). Adopting a go-green lifestyle promotes eco-friendliness, encouraging people to be more conscious of their surroundings and change their lifestyles to reduce pollution and waste.

Environmental education should emphasize public knowledge, awareness, and concrete actions, such as reusing household waste. This requires creativity and skill training. The primary goal of this community service activity is to train youth members of Karang Taruna in several aspects, including human resources, eco-friendly "go green" practices, production techniques, and aesthetics.

Human Resources Aspect: The training aims to enhance participants' knowledge and skills in designing and producing finished products. Product Aspect: The goal is to improve participants' skills in painting used cans to create aesthetically pleasing and marketable products. Aesthetic Aspect: The training teaches participants to combine available materials and apply appealing color compositions.

The training occurred on February 24, 2024, in Cikoko Timur RW 02, South Jakarta. The execution team comprised lecturers and students from the Faculty of Fine Arts and Design, Universitas Trisakti, who specialized in courses like Nirmana Practicum and Color Study. Alums with experience training communities in waste-product creation also participated.

The training was held outdoors, in the courtyard of a house in Cikoko Timur II. This open-air setting allowed participants to paint and dry the cans effectively. As shown in Figure 1, tools and materials were prepared before starting.



Figure 1 Preparation of tools and materials at the training location

At the beginning of the session, participants were briefed on the tools and materials used. The instructors then guided them through the process of painting used cans. Figure 2 illustrates the training atmosphere.



Figure 2 Training session atmosphere

The main raw material used was discarded food cans. The used cans, shown in Figure 3, were sourced from local waste collections.



Figure 3 Used cans utilized in the training

The materials used for painting included oil paints, thinners, acrylic paints, brushes, and palettes. Figure 4 shows the painting equipment participants used.



Figure 4 Painting tools and materials used by participants

Rusty cans were sanded before a base coat was applied to prepare them for painting, typically oil paint, under the instructors' guidance. Figure 5 shows this process.



Figure 5 Base coat application process

The cans were left to dry once the base coat covered the entire surface. After drying, participants sketched designs on the cans using permanent markers or pencils, as shown in Figure 6.



Figure 6 Outlining designs on the cans

After sketching the designs, participants painted them using acrylic paints, known for their water solubility and quick drying time ([Ginting & Triyanto, 2020](#)) Figure 7 shows the cans with an outline. After drying, acrylic paint is water-resistant, making it ideal for this training. Participants were guided to select harmonious, vibrant colors.



Figure 7 Cans with outline drawing

Figure 8 (a) shows the painting process with small brushes, while Figure 8 (b) depicts using medium-sized brushes for base color application.



Figure 8 (a) Painting designs with small brushes and (b) Base color painting with medium brushes

The acrylic paint included basic colors such as red, yellow, blue, and white in this training. This was intended to ensure that the colors produced would be bright, and

participants were free to mix colors from these primary colors. According to Rustandi, the steps for painting with acrylic paint are: 1) Create a basic sketch, 2) Outline or darken the sketch/contour, 3) Color application, 4) Add dark and light tones, 5) Shading, and 6) Final touch-ups ([Ginting & Triyanto, 2020](#)). Painting is an activity that involves imagination, driven by someone's intent to convey ideas and thoughts on paper as a form of self-expression ([Ariani et al., 2020](#)).

Once the painting was completed, the cans were left to dry thoroughly. To extend the lifespan of the artwork, a protective layer of transparent spray paint was applied, enhancing the colors' brightness. Figure 9 illustrates the environmental themes participants chose, such as flowers, plants, and animals (birds, butterflies).



Figure 9 Examples of environmental-themed painted cans

In addition to nature themes, some participants created simple character illustrations, as shown in Figure 10.



Figure 10 Examples of human-character-themed painted cans

Overall, the artwork produced during the training was impressive and satisfactory. Although participants were initially passive, the instructors' approach helped them become actively engaged and enthusiastic throughout the session. At the end of the training, the participants displayed their creations alongside the instructors, as shown in Figure 11.



Figure 11 Participants and instructors with the finished products

CONCLUSION

The painted cans produced during the training turned into attractive craft items that could be exhibited, used, or sold. The results of this training also introduced entrepreneurial skills to the youth of Karang Taruna Cikoko Timur RW 02, South Jakarta. The used cans were transformed into interior elements such as storage containers for accessories, stationery, personal items, and more.

The primary challenge in this training was participants' technical skills and ability to produce high-quality results. Although the techniques were relatively simple, creating

aesthetically pleasing color compositions with proper application techniques requires repeated practice for optimal results.

CONFLICTS OF INTEREST

The authors declare that they have no conflict of interest.

AUTHOR CONTRIBUTIONS STATEMENT

SIA and EFJ conceived the training, designed the experiments, and analyzed the data. LNKI, RAP, and DNS contributed to data collection and analysis and assisted in the training implementation. A, analyzed the data, and wrote the manuscript. All authors discussed the results and contributed to the final manuscript.

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