

CREATING ECO-FRIENDLY ARTWORKS THROUGH ECOPRINT TECHNIQUE TRAINING USING NATURAL MATERIALS AT THE CENTRAL KARANG ORPHANAGE

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Abstract

This community service activity aims to improve the creative skills and environmental awareness of the children of the Central Karang Orphanage through training in ecoprint techniques using natural materials. The implementation method uses the 5-D BAGJA approach based on Asset-Based Community Development (ABCD) which includes the stages of Define, Dream, Design, Deliver, and Destiny. The training was carried out with participatory methods in the form of socialization, demonstrations, and direct practice of making ecoprints on tote bag fabric. The results of the activity showed an increase in participants' understanding of the concept of ecoprint and the importance of using natural materials. Most children are able to produce one to two leaf-patterned works with good aesthetic quality and show high enthusiasm. This activity also fosters awareness of environmental conservation and the potential of the creative economy based on environmentally friendly products. This training has proven to be effective in integrating aspects of art, education, and community empowerment in a sustainable manner.

Keywords: Ecoprint, Children's Creativity, Environment, ABCD

Abstrak

Kegiatan pelayanan masyarakat ini bertujuan untuk meningkatkan keterampilan kreatif dan kesadaran lingkungan anak-anak Panti Asuhan Karang Tengah melalui pelatihan teknik ecoprint menggunakan bahan-bahan alami. Metode pelaksanaannya menggunakan pendekatan 5-D BAGJA yang didasarkan pada Pengembangan Masyarakat Berbasis Aset (ABCD), yang meliputi tahap-tahap Define, Dream, Design, Deliver, dan Destiny. Pelatihan dilakukan dengan metode partisipatif berupa sosialisasi, demonstrasi, dan praktik langsung pembuatan ecoprint pada kain tas tote. Hasil kegiatan menunjukkan peningkatan pemahaman peserta terhadap konsep ecoprint dan pentingnya penggunaan bahan alami. Sebagian besar anak-anak mampu menghasilkan satu hingga dua karya bermotif daun dengan kualitas estetika yang baik dan menunjukkan antusiasme yang tinggi. Kegiatan ini juga menumbuhkan kesadaran akan konservasi lingkungan dan potensi ekonomi kreatif berbasis produk ramah lingkungan. Pelatihan ini terbukti efektif dalam mengintegrasikan aspek seni, pendidikan, dan pemberdayaan komunitas secara berkelanjutan.

Kata kunci: Ecoprint, Kreativitas Anak-Anak, Lingkungan, ABCD

INTRODUCTION

In this modern era, textile waste and environmental pollution due to synthetic dyes from the fashion industry are global problems that require innovative solutions (Enrico, 2019). One solution that can be applied is to utilize the Ecoprint technique, which is a fabric dyeing technique that uses natural materials such as leaves, flowers, and other plant parts to create unique motifs and colors through the process of direct contact between

natural materials and fabrics (Lukito, et al., 2024). This technique is environmentally friendly because it does not use synthetic chemicals and utilizes natural resources that are easily obtained.

In the ecoprint technique, natural materials such as leaves and flowers are arranged on the surface of the fabric, then the fabric is rolled tightly and processed by steaming or beating. This process allows the natural pigments from the plant to be transferred to the fabric, creating unique and artistic motifs. This method not only produces beautiful work, but it is also environmentally friendly because it minimizes the use of synthetic dyes that have the potential to pollute nature (Purnomo, 2024). Ecoprint is now increasingly popular among fashion and craft industry players because of its speciality in creating unique motifs and providing high aesthetic value to textile products. In addition to offering visual appeal, this technique also creates new business opportunities that are oriented towards sustainability and care for the environment (Lukito, et al., 2024).

On the other hand, children in orphanages need more attention and opportunities to develop skills that can help them become independent in the future. One approach that can be provided is through art and environment-based skills training. By introducing the Ecoprint technique, children can acquire creative skills that have economic value, while fostering awareness of the importance of environmental conservation and the economic potential of ecoprint products, as well as opening up business opportunities in the creative industry (Lubis, Fitri, & Meutia, 2023).

The project aims to provide Ecoprint engineering training to children in orphanages as part of environmental empowerment and education efforts. Through this training, it is hoped that they will not only gain new knowledge in the world of sustainable art and fashion but also acquire skills that can be a source of income in the future. In addition, this project also aims to increase awareness of the environment by utilizing natural materials that are easy to find and environmentally friendly. With this project, we hope to have a positive impact on children in orphanages, both in terms of education, skills, and environmental awareness. Through a systematic and sustainable approach, we believe that Ecoprint techniques can be a useful and useful learning tool for them.

METHOD

This community service activity uses the 5-D BAGJA (Define, Dream, Design, Deliver, and Destiny) approach, which is an Asset-Based Community Development (ABCD) model. This approach focuses on utilizing the potential and assets that the target community already has, not solely on its shortcomings. With this method, the implementation of activities becomes more participatory, collaborative, and sustainable.

The program was held at the Karang Tengah Orphanage, South Jakarta. The target of the activity is children living in orphanages who have high enthusiasm for art activities and creative skills. They became the main participants in the ecoprint technique training which aims to foster creativity, environmental awareness, and economic independence. This service is carried out through several main stages as follows:

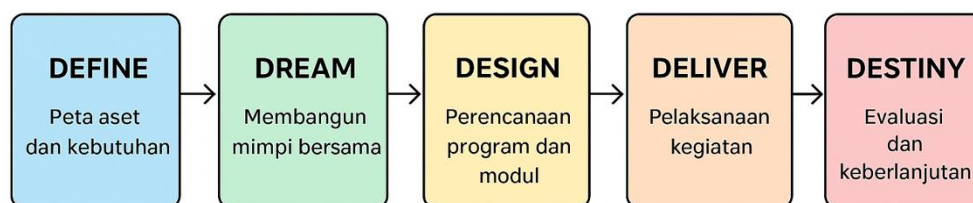


Figure 1: Activity Stages

Define (Asset and Needs Mapping)

The initial stage was carried out through observation and interviews with orphanage administrators to identify the potential, interests, and needs of participants. The team found that children need educational activities that can improve practical skills and environmental awareness.

Dream (Building Shared Dreams and Goals)

The team together with children and orphanage administrators conducted a Focus Group Discussion (FGD) to explore their expectations for ecoprint training. From this discussion, a common vision was born to create environmentally friendly artworks that have economic value and can be an inspiration for small entrepreneurship.

Design (Design of Training Programs and Modules)

Based on the results of the identification, the team prepared an activity plan, determined schedules, tools and materials, and prepared an ecoprint training module that included an introduction to concepts, basic techniques, hands-on practice, and evaluation.

Deliver (Implementation of Activities)

The training was carried out in a participatory manner with short lectures, demonstrations, and hands-on practice. Participants learned the stages of ecoprint starting from the preparation of materials, the preparation of motifs, pounding techniques, to the drying process and evaluation of the work.

Destiny (Evaluation and Sustainability)

The final stage was carried out with an exhibition of works, reflection on activities, and discussion of follow-up plans. Children are encouraged to form sustainable ecoprint creative groups and explore small business opportunities based on eco-friendly products. Evaluation is carried out through direct observation, group reflection, and activity documentation. Teams and participants jointly assess successes and obstacles during

training. The follow-up plan includes the establishment of an ecoprint creative group in orphanages, advanced training on natural dyeing techniques, and collaboration with local UMKM for product marketing.

RESULT

This Community Service (PKM) activity was successfully carried out at the Karang Tengah Orphanage, South Jakarta, in April-May 2025. The training is focused on the introduction and hands-on practice of ecoprint techniques as a form of environmental education and the development of creative skills of orphanage children.



Figure 2: Implementation of Activities

At the implementation stage, the activity began with socialization and demonstration of ecoprint techniques using natural materials such as leaves and flowers that are easy to find around the environment. Participants then practiced directly creating motifs on totebag fabrics through pounding and steaming techniques. The children's work shows their uniqueness and becomes a form of expression of their creativity. The children of the orphanage looked enthusiastic and active during the activity. They can understand the stages of the ecoprint process, starting from the selection of materials, the preparation of motifs, to the drying of the prints. Most of the participants managed to produce 1–2 ecoprint works with good aesthetic quality, demonstrating the new skills they had mastered.



Figure 2: Exhibitions of works

In addition to improving technical capabilities, this activity also fosters awareness of the importance of environmental conservation through the use of natural materials without chemical waste. Children become more sensitive to the values of sustainability and learn that art can be developed into productive and environmentally friendly activities. Another impact that can be seen is the emergence of entrepreneurial spirit among the participants. Some children expressed a desire to make ecoprint a regular activity and even a small business opportunity. To support the sustainability of the program, the service team conducted an exhibition of works and reflections on activities, as well as encouraging the formation of an ecoprint creative group at the orphanage.

Table 1. Stages of activity

Stages (5-D BAGJA)	Activity Description	Results Achieved
Define (Asset and Needs Mapping)	Conducting observation of the social and environmental conditions of the Karang Tengah Orphanage, as well as interviews with administrators and children to identify potential, interests, and training needs.	<ul style="list-style-type: none"> - Identified the potential of children in the field of arts and crafts. - It is known that the need for the development of creative skills and environmental awareness. - Compiled initial data as the basis for ecoprint training planning
Dream (Building Shared Dreams and Goals)	Carry out a Focus Group Discussion (FGD) with children and orphanage administrators to explore common hopes and goals for ecoprint training.	<ul style="list-style-type: none"> - Formed a common vision to produce eco-friendly and economically valuable artworks. - Participants showed high enthusiasm and felt that they had the activity.
Design (Design of Training Programs and Modules)	Prepare activity plans, schedules, tools, materials, and training modules that are tailored to the abilities of the participants and the conditions of the orphanage's environment.	<ul style="list-style-type: none"> - A systematic and applicable training plan is prepared. - Ready-to-use ecoprint training modules (materials, demonstrations and hands-on practice). - Training kits made from simple materials are available that are easy to obtain.
Deliver (Implementation of Activities)	Carrying out ecoprint training activities which include socialization, technical demonstrations, hands-on practice, evaluation, and exhibitions of works.	<ul style="list-style-type: none"> - The children managed to produce 1–2 ecoprint works with varied natural motifs. - Participants understand the basic concept of ecoprint and the importance of eco-friendliness. - More than 80% of participants are active and fully participating
Destiny (Evaluation,	Conducting activity evaluation,	<ul style="list-style-type: none"> - Creative group of children of

Appreciation, and Sustainability)	joint reflection, and follow-up planning in the form of the formation of ecoprint creative groups and exhibitions of works.	the Central Karang Orphanage was formed. - An exhibition of works was held as a form of appreciation and motivation. - Follow-up initiatives for natural coloring training and product promotion on social media emerge.
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DISCUSSION

The implementation of community service activities with the theme "*Creating Eco-Friendly Artworks through Ecoprint Technique Training Using Natural Materials*" showed results that are in line with previous theories and research on environment-based skills education. This activity not only produces art products but also builds ecological awareness and the entrepreneurial spirit of the orphanage children.

The initial stage of the activity was carried out with observation and interviews to map the potential of the children of the Karang Tengah Orphanage. The results of observations showed that they had high enthusiasm for art activities but did not have the means to develop these skills. This supports the views of Nurhuda et al.. (Nurhuda, et al., 2021) that community empowerment should depart from the identification of assets and potential, not from existing shortcomings. This asset-based approach is also in line with the principle of Asset-Based Community Development (ABCD) which places the community as the subject of driving of change, not just the object of the program.

Through the Focus Group Discussion (FGD) activity, the children and the orphanage administrators jointly formulated the objectives of the ecoprint training. They hope to produce artwork that is not only beautiful but also economically valuable. This activity proves that participants are able to actively participate in designing the vision of the activity, as Campbell explained that creativity grows when individuals are given space to imagine and participate in the creation process. The process of building this dream also increases motivation and a sense of ownership of the activity, thus encouraging more meaningful involvement (Campbell, 1986).

At the program design stage, the service team prepared an ecoprint training design consisting of concept introduction, engineering practice, and evaluation of the work. The training modules are designed simply to suit the characteristics of the children's participants. This activity refers to the theory of Harahap et al. which emphasizes the importance of physical activity-based creative learning to develop children's psychomotor, cognitive, and affective aspects. Through activities such as arranging leaves, hitting fabrics, and observing natural color results, participants not only learn art techniques but

also practice fine motor coordination and reflective thinking (Harahap, Lubis, & Lubis, 2023).

The training is carried out by *the learning by doing* method, where children participate directly in each stage of ecoprint making. Participants learned two main techniques, namely *pounding* and *steaming*. The results showed that most of the participants managed to produce 1–2 leaf-patterned tote bags with good aesthetic quality. This corroborates Faridatun's finding that the ecoprint technique is effective as a medium for education and artistic expression because it allows participants to create unique patterns using natural materials (Faridatun, 2022). In addition, this activity proves the advantages of ecoprint as explained by Masruchiyah et al. namely environmentally friendly, utilizing local resources, and reducing dependence on synthetic chemicals. By utilizing the leaves and flowers around the environment, participants learn the concept of *sustainability* in simple practice (Masruchiyah, Murti, & Marthinu, 2024).

The final stage in the form of evaluation, exhibition of works, and joint reflection showed the positive impact of the activity on the participants. Children feel proud of their work and are motivated to develop ecoprint skills in a sustainable way. From this activity, an ecoprint creative group was formed at the Karang Tengah Orphanage, as a form of sustainability and independence. This finding is in line with Nurcahyanti's research which states that ecoprint activities can be an educational means in instilling environmental awareness and inspiring creativity of the younger generation (Nurcahyanti, 2024). In addition, this activity also strengthens the theory of Firdaus et al. that project-based learning can improve participants' critical thinking, collaboration, and innovation skills. In this context, children learn through hands-on experience, work closely with peers, and see the concrete results of their hard work (Firdaus, Putri, & Havita, 2024).

Overall, this PKM activity based on BAGJA's 5-D approach has succeeded in integrating aspects of art, education, environment, and creative economy into one fun learning activity. The results of the activity show that ecoprint training not only improves children's creative skills but also fosters ecological awareness and entrepreneurial potential. These findings prove that the ABCD approach and the ecoprint method can be an effective, contextual, and sustainable model of community service.

CONCLUSION

Based on the series of activities that we have carried out, it can be concluded that the Ecoprint engineering training program at the Karang Tengah Orphanage has gone well and achieved most of the planned goals. This activity has a positive impact, especially in the aspect of strengthening creative skills and increasing environmental awareness for orphanage children. Through this training, participants were introduced to the Ecoprint technique as a method of printing natural motifs on fabrics using natural materials such as

leaves and flowers. The work they produce shows that children are able to understand and practice the basic Ecoprint techniques independently and begin to see the potential economic value of the products they make.

In addition, this activity is also a fun and applicable educational tool, which not only fosters creative character and cares for the environment, but also forms the basis of understanding about environment-based entrepreneurship. This activity also shows that a community-based training approach can bridge the need for practical skills with meaningful educational values, even in the orphanage environment. With good synergy between students, supervisors, orphanages, and participating children, this training was successfully carried out in an orderly, interactive, and real impact.

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