



Analysis Of The Utilization Of Plastic Waste As A Basic Material For Making Bags

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Article Info	ABSTRACT
<p>Corresponding Author: Ratnawati : E-mail: rtnawati203@gmail.com</p>	<p>The increasing increase in plastic waste from households will become a serious problem if a solution is not found. On the one hand, the discovery of plastic has had an extraordinary positive impact, because plastic has advantages over other materials. Based on the large amount of plastic waste, this activity needs to be carried out with the aim of improving the community's economy. This means creating new, innovative jobs from the development of household industries. The next stage of the plan is assistance in processing plastic waste into products so that standard quality and quantity of products are obtained, as well as program evaluation to see how far this program is beneficial for everyone.</p> <p>Keywords: Plastic Waste, Creative Products.</p>

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INTRODUCTION

Plastic waste is a serious problem all around us. Plastic waste that does not decompose easily is a major contributor to environmental pollution, both land and sea pollution. The nature of plastic which is difficult to decompose means it can remain in the environment for hundreds of years if not managed properly. In Indonesia, the need for plastic continues to increase to an average increase of 200 tons per year. In 2002, it was recorded at 1.9 million tons, in 2003 it rose to 2.1 million tons, then in 2004 it rose again to 2.3 million tons per year. In 2010 it became 2.4 million tons, and in 2011, it had increased to 2.6 million tons. The consequence of this increase in plastic use is an increase in plastic waste (Surono, 2011). Based on data from the Ministry of the Environment (KLH), every day the Indonesian population produces 0.8 kg of waste per person or a total of 189 thousand tons of waste/day. Of this amount, 15% is in the form of plastic waste or 28.4 thousand tons of plastic waste/day.

Plastic waste entering the sea can cause tremendous damage to marine life. Apart from polluting the oceans, plastic waste can also be eaten and poisoned by marine animals. The process of storing and disposing of plastic waste is associated with a number of health problems that affect humans and animals worldwide. Polluted air due to burning plastic waste in the open air can affect human and animal health. In addition, the use of chemical additives during the plastic production process can cause endocrine disorders. With this large amount of plastic waste, there needs to be anticipation to overcome this problem. The most popular handling of plastic waste so far is 3R (Reuse, Reduce, Recycle). Reuse is

repeatedly using items made from plastic. Reduce is reducing the purchase or use of plastic items, especially single-use items. Recycle is recycling items made from plastic. On the one hand, the discovery of plastic has had an extraordinary positive impact, because plastic has advantages compared to other materials (Arico and Jayanthi, 2017: 2).

METHODS

STEAM stages

a. Ask

In everyday household life, a lot of domestic (household) waste is produced, both in the form of organic and inorganic waste. Inorganic waste is a problem in itself because this type of waste is very difficult to degrade. Community participation in managing household waste, especially inorganic waste, will be very beneficial for the environment. If plastic waste is burned it will cause air pollution and if left to continue it will not decompose in the soil. With this large amount of plastic waste, it will be possible to make all kinds of crafts that have a high selling value but the public lacks understanding so the waste is just left like that.

b. Imagine (Imagine the product)

This inorganic waste comes from households, plastic waste can be turned into beautiful handicrafts and has high selling value. You can make bags, pencil cases, wall hangings or other accessories from used plastic wrap or packaging. On this occasion, plastic waste will be made into reusable bags.

c. Plan (Product Planning)



d. Create (Create a Product)

Tools and materials

- a) Plastic waste
 - b) Used cardboard
 - c) Scissors
 - d) Glue
 - e) Cutter
 - f) Ruler/meter
- g) Pencil
- ##### Making process
- a) Prepare the tools and materials used
 - b) Measure the cardboard with dimensions of 25 x 10 cm
 - c) Cut the cardboard to a size of 2 cm
 - d) Join the cardboard using glue

- e) Weaving plastic onto cardboard, in the weaving process different colors of plastic are made.
- f) Make a bag handle using used plastic and leftover cardboard
- g) The bag is ready to use

STEAM aspect

- a. Science : Processing of used goods
- b. Technology : The bag media to be made
- c. Engineering : Media design to be created
- d. Art : Colorful diversity of plastic
- e. Mathematis : Measurement of bag area

RESULTS AND DISCUSSION

The craft of making bags from plastic waste can help people improve their skills in making bags. This training can be carried out by experts in the fields of history, waste processing and fine arts. Using the Best Raw Materials Selecting credible and experienced raw materials is important to ensure high quality results. Good raw materials can reduce deficiencies in making bags. Optimizing the manufacturing process by paying attention to the steps in making bags, such as the process of making bags, the process of making bag straps, speed/timeliness, the beauty of the resulting bag, the harmony of the color of the finished bag, the suitability of the size of the finished bag. The neatness of the pouch stitching, the neatness of the finished bag, and the cleanliness of the finished bag, can help improve the quality of the bag. Processing plastic waste into bag crafts can help improve the community's economy and minimize the amount of plastic waste produced. So that the bag we have made can last a long time, it must be cared for after use, namely by wiping it with a wet cloth and then with a dry cloth so that the bag remains durable.

CONCLUSION

The craft of making bags from plastic waste can help people improve their skills in making bags. This training can be carried out by experts in the fields of history, waste processing and fine arts. Using the Best Raw Materials Selecting credible and experienced raw materials is important to ensure high quality results. Good raw materials can reduce deficiencies in making bags. Optimizing the Manufacturing Process pays attention to the steps in making bags, such as the process of making bags, the process of making bag straps, speed/timeliness, the beauty of the shape of the resulting bag, the harmony of the color of the finished bag, the suitability of the size of the finished bag, the neatness of the pouch stitching, the neatness of the finished bag. , and the cleanliness of the finished bag, can help improve the quality of the bag. Processing plastic waste into bag crafts can help improve the community's economy and minimize the amount of plastic waste produced. So that the bag we have made can last a long time, it must be cared for after use, namely by wiping it with a wet cloth and then with a dry cloth so that the bag remains durable.

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