

TRAINING IN THE PROCESSING OF WASTE PAPER INTO RECYCLED PAPER WITH SELLING VALUE

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Abstract

Paper is one of the most common wastes produced by humans, this paper waste is often found in household activities as well as offices and schools. Processing recycling of paper can add many advantages including being able to reduce waste in the environment, save energy, reduce the impact of global warming and can also generate income. This recycled paper can also be used to make various handicraft products that can be made by people who have creative values and an artistic spirit. The works of this recycled paper can be used as home decoration knick-knacks, stationery and office equipment, You can also make unique and creative multi-purpose containers that housewives can be interested in. Apart from that, they can be used for materials for student craft assignments as well as school students. Paper waste management certainly requires more attention, this can be overcome by efforts to reduce it by converting paper waste into recycled paper which has a selling value and is useful.

Keywords : Paper Waste, Recycling and Selling Value

INTRODUCTION

At present, waste is no longer normal for our earth because waste is a serious problem for this earth. The more waste that is produced by mankind without proper processing, the faster this earth is destroyed. Therefore, the utilization of waste is very important to prevent our earth from being dirty and destroyed. Paper is one of the most common wastes produced by humans, both produced by households and schools and offices. Paper waste is a serious problem for this earth. In general, paper is made from nature and usually from trees. So the more we use paper, the faster the earth will be filled with damage because the balance of nature is disturbed. By recycling paper waste, we help maintain the balance of nature and prevent global warming. In addition, paper waste is also very easy to find, even at home it can be seen such as unused children's books, used wrapping paper, newspapers, old magazines and others that can be used or actually can be reprocessed and add value to used goods. that was. This paper waste problem certainly requires extra attention to be resolved. Paper waste management certainly requires more attention, this can be overcome by efforts to reduce it by converting paper waste into recycled paper which has a selling value and is useful.

Formulation of the problem

Based on the background of the problems above, the formulation of the problem in this study is: How big is the processing of paper waste for PKK women in Bane Village, Siantar District, Pematang Siantar City?

LITERATURE REVIEW

Paper

Paper is one of the objects that we often find everywhere, because almost every activity that is carried out always requires paper. In 105 BC paper was first created by Cai Lun, which is one of the four major inventions by the Chinese (Hery Nuryanto, 2012). The raw material for paper is pulp (pulp) which is made from wood with long fibers (hard wood) and wood with short fibers (soft wood). The presence of paper is a new revolution in the world of writing which has great meaning in world civilization. Before paper was invented, the nations of that era used tablets made of burnt clay. This can be found from the civilization of the Sumerians, inscriptions from stone, wood, bamboo, leather, silk, even strung palm leaves as found in Nusantara texts several centuries ago. As time goes by and the quality of society increases, the need for paper is always increasing and developing. Thus, the use of paper will continue to increase, even though the times are getting more sophisticated. This is because the use of paper as a basic material continues to grow in diversity. The use of paper in Indonesia cannot be eliminated, even though it is now in the millennial era. Especially the use of paper in educational institutions. In essence, digital media is very helpful in reducing paper use. However, in reality the use of paper is still widely practiced (Thus, the use of paper will continue to increase, even though the times are getting more sophisticated. This is because the use of paper as a basic material continues to grow in diversity. The use of paper in Indonesia cannot be eliminated, even though it is now in the millennial era. Especially the use of paper in educational institutions. In essence, digital media is very helpful in reducing paper use. However, in reality the use of paper is still widely practiced (Thus, the use of paper will continue to increase, even though the times are getting more sophisticated. This is because the use of paper as a basic material continues to grow in diversity. The use of paper in Indonesia cannot be eliminated, even though it is now in the millennial era. Especially the use of paper in educational institutions. In essence, digital media is very helpful in reducing paper use. However, in reality the use of paper is still widely practiced (Digital media is very helpful in reducing paper usage. However, in reality the use of paper is still widely practiced (Digital media is very helpful in reducing paper usage. However, in reality the use of paper is still widely practiced (Nuryanto, 2012). According to the Ministry of Industry of the Republic of Indonesia This has been proven by Indonesia being ranked 9th for the world's largest pulp producer and 6th for the world's largest paper producer.

Paper Waste

Multiple uses of paper As mentioned above, it is undeniable that paper has many benefits. But we shouldn't be complacent, of all the uses and benefits of paper it also has a bad impact on forests and also the environment around us. The high and increasing demand for paper has a negative impact on forests, because the raw material for paper comes from trees in the forest. And to meet the need for paper, it means that it requires cutting down about millions of trees every year. In fact, Indonesia's Industrial Plantation Forests (HTI) are unable to meet paper needs (Restu Indah in Qureta, 2018). This is evident from the ever-increasing need for paper and the loss of forest authenticity of around 70%. Meanwhile, to produce a ream of paper requires one tree trunk that is five years old, while one tree trunk can turn three people. However, there is still a lot of wasteful and excessive use of paper.

In addition to paper having a negative impact on forests, paper waste resulting from the production of paper factories or products that use paper-based materials can also damage the environment. The Ministry of Industry stated that the total capacity of the national pulp industry in 2017 reached 10.43 million tons. This figure jumped 31.52% from 7.93 million tonnes in 2016.

Meanwhile, the total capacity of the national paper industry is 12.98 million tons per year (Pingit Ariaa in Qureta, 2018). This means that pulp and paper waste in Indonesia is around 10.43 million tons and 7.93 million tons respectively. This proves that the amount of paper waste in Indonesia is enormous, because there is still little paper waste that is recycled or reused.

Paper Waste Management Strategy

Paper waste as one of the raw materials for the recycling industry is currently not optimally managed so that only 70% can be reused or recycled. Even though the amount of paper waste generated can reach around 10% of the total amount of waste. Therefore a good strategy is needed so that paper waste can be managed optimally. In this paradigm, waste is not seen as a resource, so a new perspective is needed that sees waste as a resource, namely the 3R concept (reduce, reuse, and recycle). With this new perspective Paper must be seen as a valuable resource so that its selection and use must be done wisely. Activities to reduce paper use can be in the form of avoiding the use of wasteful paper, using paper only as needed, for example, to print drafts, it is enough to use waste paper. As for reuse, for example, paper or cardboard boxes that we have used can be reused for other purposes. For recycling, paper waste can be used as art paper or for low quality pulp raw materials. Meanwhile, so that paper waste can be used optimally, the process of sorting paper waste should be done directly at the source. Without segregating paper waste beforehand, it will mix with other types of waste so that it will be easily decomposed or destroyed. As a result, the paper waste cannot be used or recycled again. Separation of paper waste at the source needs to be optimized whether it's in households, shops, offices or industries that use paper. The active role of the community is the main key in the sorting process. Dissemination of information about the importance of sorting paper waste can be done in the form of counseling, brochures, etc. Information dissemination activities should be carried out by the government. The follow-up after the paper waste is separated is to sell it directly to the lapak or use it to become recycled paper or art paper.

IMPLEMENTATION METHOD

The community service was carried out on January 23, 2023, the location of the activity was Bane Village, North Siantar District, Siantar. Counseling on paper waste management which at the same time is a training carried out by presenting material in a powerpoint slide. The material presented included information about paper waste and how to deal with it. Then proceed with training on processing waste paper into recycled paper. Give the steps of manufacture and practice the processing directly. The success parameters of this community service activity can be seen at the end of the activity, namely:

1. The activity participants attended and participated in the training from the beginning to the end of the event.
2. The activity participants were actively involved in the training and practiced what they had been trained on.

RESULTS AND DISCUSSION

The training activities for processing waste paper into recycled paper in Bane Village can be said to be successful, this can be seen from the enthusiasm of the activity participants when the training was carried out. In addition, according to the participants' confessions that they did not think that the ordinary paper waste they had at home could be reprocessed even without large capital but could add value to paper files. The background to the implementation of this training

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was the concern of Efarina Siantar University Lecturers, especially the Faculty of Economics Lecturer as the executor of activities to educate about current waste reduction. Invite participants to participate in environmental sustainability, especially in 3R activities, namely Reduce, Reuse, and Recycle.

In this training activity, in addition to material regarding the environment and expectations for caring for the environment, the resource persons also provided training on how to make recycled paper. Participants were told the materials and equipment they usually use, namely materials they often find at home, such as used paper (in the example HVS/A4 paper), wood glue and water. Besides that, tools such as buckets/basins, belnder, plywood and screens (paper printers). Then proceed with the process/work steps which include cutting the paper into small pieces and then soaking it overnight, then soaking the paper in a blender so that it becomes softer and resembles paper pulp. Next prepare a basin that has been filled with water and mix the paper pulp earlier then add the wood glue, stir until evenly distributed and well mixed. Prepare screen for printing paper, flatten and press to reduce water content. Then, we stick the paper prints on the plywood provided, dry them for 4-6 hours under the sun until they dry and you can get recycled paper. Participants in the activity practiced making recycled paper themselves, several groups successfully carried out experiments. Results are checked after one day of manufacture as the drying process requires sufficient sunlight for the recycled paper to dry and be usable. Through this activity, it is hoped that the participants will be able to try it themselves, and even try to make this a form of concern for the environment and if it is continued and continues to be developed it can provide a selling point for used paper so as to increase the independence of PKK mothers.

CONCLUSION

In this community service activity it can be concluded that:

1. This activity can educate participants about concern for the environment, as well as processing waste paper and participating in reducing paper waste.
2. This activity can provide motivation for participants to try their hand at making recycled paper, the raw material used is
3. It is hoped that this activity can be developed so that the recycled paper that has been made can have a sale value as a raw material for making various creations made from recycled paper so as to increase the independence of the PKK women participating in the activity.

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