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Development of Resin Handicrafts (Crude Oil Derivative Products) for Students at MTs Negeri 7 Kampar

Pembinaan Kerajinan Tangan Berbahan Resin (Produk Turunan Crude Oil) Bagi Peserta Didik di MTs Negeri 7 Kampar

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Abstract

The program for promoting the creation of resin-based handicrafts (a byproduct of crude oil) is conducted at MTS Negeri 7 Kampar, the village o Kuntu in the Kampar District. This village is known for being one of the places of religious tourism attraction, particularly the tomb of Syekh Burhanuddin. The community service activity (PKM) aims to introduce students to various resin-based handicrafts and to provide them with direct hands-on experience. The methods for this activity involve preparing equipment and materials and creating sample handicrafts at the Faculty of Engineering, Islamic University of Riau. The implementation includes educating and training the students, with evaluations carried out through pre-tests and post-tests to measure the students' knowledge improvement in relation to resin, as well as evaluating the success of the students' crafted handicrafts. The results of this community service activity have successfully increased students' knowledge and skills by 100%, as shown by a questionnaire survey conducted both before and after the resin-based handicraft creation mentoring.

Keywords: resin, handicrafts, community service

Abstrak

Kegiatan pembinaan pembuatan kerajinan tangan berbasis resin (produk turunan *crude oil*) ini dilaksanakan di MTS Negeri 7 Kampar yang terletak di Desa Kuntu Kecamatan Kampar karena desa ini merupakan salah satu Desa dengan objek wisata religi Makam Syekh Burhanuddin. Kegiatan pengabdian kepada masyarakat (PKM) ini bertujuan untuk memperkenalkan dan meningkatkan pengetahuan dan keterampilan para siswa terkait dalam pembuatan kerajinan tangan menggunakan bahan dasar resin melalui kegiatan pelatihan. Metode kegiatan yang dilakukan meliputi persiapan peralatan dan bahan serta pembuatan contoh kerajinan tangan di Fakultas Teknik, Universitas Islam Riau, pelaksanaan berupa pemberian edukasi, demonstrasi dan praktek langsung dalam pembuatan kerajinan tangan berbahan dasar resin. Peserta kegiatan adalah siswa/siswi MTSN 7 Kampar kelas VIIB berjumlah 26 orang. Evaluasi berupa survey *pre test* dan *post test* kuisioner sebelum dan sesudah kegiatan. Hasil yang diperoleh adanya peningkatan pengetahuan yang signifikan sebesar 100%.

Kata kunci: Resin, kerajinan tangan, Pengabdian kepada masyarakat



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INTRODUCTION

Kuntu Village is one of the villages in Kampar sub-district which has an area of 16.35 Ha/m² which consists of residential land, rice fields, plantations and others (Irmayanti, The Impact of the Existence of the Religious Tourism Attraction of Sheikh Burhanuddin's Tomb on the Welfare of Kuntu Village, Kampar Kiri District, Kampar Regency, 2018). Kuntu Village has natural tourist attractions including Padang Beach, Siantan Park and a religious tourist attraction, namely the Sheikh Burhanuddin Tomb. Therefore, Kuntu Village is an area that has tourism potential and is promising for the future. Adequate preparations need to be made to welcome the increasing functioning of this area as a tourist destination, both local and regional. Human resources who are skilled and responsive to market opportunities need to be improved so that the people of Kuntu Village, who enjoy the economic results from this aspect of the tourist attraction, can enjoy them.

One of the supporting aspects of tourism is the presence of souvenirs or handicrafts that can be used as souvenirs or souvenirs of a place you have visited or visited. However, currently in Kuntu village there are no resources from teenagers (MTs students), youth groups or people who develop handicrafts or souvenirs due to the lack of knowledge and skills in the community regarding handicrafts. There are several materials and methods that can be used to make handicrafts, including handicrafts from used materials, knitting handicrafts and handicrafts from resin.

Resin is a material that hardens easily and is light in weight, making this material very popular with everyone because it can be made into various kinds of objects, one of which is handicrafts. (Putri Dwi C et all, 2022). Resin is transparent, cannot be dissolved in water, is flammable, resin has been used since ancient times, according to several sources organic resin is used as varnish or adhesive, for example resin resin is used to make statues (Muis 2018), with the development of technology chemical resins have been discovered. which are used as melamine, epoxy, acrylic and so on (Asmi, Yulianti, and Kiswandono 2019). Apart from that, resin is also a fraction or component contained in crude oil which are known as polar and non-volatile fractionscrude oil which is soluble in n alkanes and aromatic solvents but not in proppant. Resin is a fraction heavy second only to asphaltthene on crude oil.

Resin-based handicrafts need to be introduced to the students of MTs Negeri 7 Kuntu. After understanding the meaning, types and functions of resin, training and assistance will be carried out in making resin-based handicrafts with the hope that they will be applied and conveyed to the community so that they are useful and can be sold to visitors who visit the religious tourist attraction Sheikh Burhanuddin's Tomb located in Kuntu village, Kampar Kiri district.

DEVOTION METHOD

The method used during Community Activities at MTSN7 Kampar, Kuntu Village consists of several stages, namely the socialization stage, the direct practice stage, coaching for making resinbased handicrafts (a derivative of crude oil), and the evaluation stage. The socialization stage is carried out by providing knowledge to MTSN 7 Kampar students regarding the meaning of resin, the process of forming resin (crude oil derivative), the function and benefits of resin (crude oil derivative), equipment and materials used to produce handicrafts from resin (crude oil derivative), steps or methods for making handicrafts, especially key chains and brooches from resin (crude oil derivative).

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The equipment and materials used are

Tool:

- · Silicone mold
- · Stirring rod or spoon
- · Cup
- Tweezers
- Gloves
- Face mask
- · Manik manik
- Key chain
- · Brooch or needle pin
- · Decal

Ingredients:

- · Resin
- · Catalyst
- Cat resin
- · Glitter

The types of handicrafts that will be practiced in this PKM activity are only key chains and hijab brooches. The steps for making key chains and hijab brooches from resin (a crude oil derivative) are as follows:

- 1. Prepare tools and materials. Use personal protective equipment such as gloves and masks first. And make sure the surrounding area is clean and has a good air cycle.
- 2. Pour the liquid resin and catalyst into the cup in a ratio of 3 spoons of resin added with 3 drops of catalyst. Then mix with a stir stick.
- 3. The liquid resin and catalyst that have been mixed can be added with paint or glitter to make the craft more beautiful.
- 4. Then prepare a silicone mold and pour the mixture into the mold according to your wishes.
- 5. Before it hardens, decorations can be added to the resin mixture such as stickers and beads. Key chains can also be placed with the resin mixture before it hardens using tweezers.
- 6. Wait for approximately 1 hour so that the resin can harden completely.
- 7. Then to make a brooch from resin, we can glue it using a glue gun or wax glue.
- 8. And crafts can be used.

The direct practice stage of coaching activities for making handicrafts made from resin (a crude oil derivative product) for students at MTS Negeri 7 Kampar is carried out by directly practicing making handicrafts of key chains and hijab brooches using equipment and materials provided by the PKM team. This direct practice is supervised directly by the PKM team. The products resulting from the practice will later be given to participants so they can be used.

The evaluation stage in this activity is evaluating the increase in partner knowledge through pre-test and post-test methods. The pre-test method was carried out before an explanation regarding resin theory and the process of making handicrafts made from resin (crude oil derivative products) was presented and explained and the post-test was carried out at the end of the activity after the MTS Negeri 7 Kampar students had completed the direct practice of making key chains and hijab brooch.

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Pre test and post test methods are used to measure changes that occur in a group (Dimitrov% Rumrill 2003)

SERVICE RESULTS AND DISCUSSION

Community Service Activities (PKM) will be held on Saturday, September 8 2023 at 08.00 WIB 12.00 WIB at MTS Negeri 7 Kampar, Kuntu Village regarding the development of handicrafts made from resin (a crude oil derivative product). This PKM activity was attended by students and female students of MTS Negeri 7 Kampar class VII B with a total of 26 participants. Presentation of material related to the meaning of resin (crude oil derivative), the function and benefits of resin, types of handicrafts (souvenirs) that can be produced from resin (crude oil derivative), equipment and materials used to produce handicrafts from resin (crude oil derivative), steps or methods for making handicrafts, especially key chains and brooches from resin (a crude oil derivative) were conveyed to students in class VII B MTS Negeri 7 Kampar so that students could increase their knowledge and insight regarding resin. Before delivering the material, a pre-test was carried out by distributing a questionnaire containing questions related to resin.

After the material delivery activity, the students immediately practiced making key chains and hijab brooches from resin (a crude oil derivative product) with supervision, direction and guidance from the PKM team. Students are directed to develop creativity and artistic ability by adding accessories in the form of beads, glitter, dyes and strickers to beautify the resulting key chains and brooches. After the class VII B MTS Negeri 7 Kampar students had completed making handicrafts in the form of key chains and hijab brooches from resin (a derivative of crude oil), a post test was carried out by distributing questionnaires containing the same questions as the questions in the initial questionnaire. Based on the results of the questionnaire, the results showed that the students of MTs Negeri 7 Kampar showed that in general all participants were interested and interested in making handicrafts made from resin (a derivative of crude oil). At first, all the students in class VII B at MTS Negeri 7 Kampar did not know the meaning of resin (crude oil derivative), the function and benefits of resin, types of handicrafts (souvenirs) that can be produced from resin (crude oil derivative), equipment and materials. which is used to produce handicrafts from resin (crude oil derivative), steps or methods for making handicrafts, especially key chains and brooches from resin (crude oil derivative). However, after being given a direct presentation of the material and independent practice, there was an increase in knowledge where all MTS Negeri 7 Kampar student participants (100%) knew the meaning of resin (crude oil derivative), the function and benefits of resin. Apart from that, there has also been an increase in knowledge and insight regarding the types of handicrafts (souvenirs) that can be produced from resin (crude oil derivative), equipment and materials used to produce handicrafts from resin (crude oil derivative), steps or methods. making handicrafts, especially key chains and brooches from resin (a derivative of crude oil).

The students of class VII B MTS Negeri 7 Kampar succeeded in producing key chains and hijab brooches with various shapes and motifs, so it is hoped that through this activity the students will be able to produce them independently and disseminate insight and knowledge regarding resin (crude oil derivative) and spread the word. to friends and local teenagers regarding the procedures for making handicrafts, both key chains and hijab brooches, so that the benefits of this PKM activity can be felt more widely and in the future they can become an entrepreneur that can improve the economy of the Kuntu village community. This is supported by the location of MTS Negeri 7 Kuntu which is located very close to the religious tourist attraction Sheikh Burhanuddin which is often visited by local tourists.

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Tabel 1. Komparasi hasil pre test dan post test

No	Uraian	Pre Tes (% Ya)	Post Test (% Ya)
2	Apakah anda mengetahui fungsi dan manfaat resin?	0%	100%
3	Apakah anda mengetahui jenis kerajinan tangan yang dapat dihasilkan menggunakan bahan dasar resin?		100%
		0%	100%
	Apakah anda mengetahui cara pembuatan kerajinan tangan		
4	dari bahan dasar resin	0%	100%
	Apakah anda mengetahui peralatan dan bahan untu		
5	pembuatan kerajinan tangan berbahan dasar resin	0%	100%
6	Apakah anda ingin membuat kerajinan tangan berbahan dasar resin?		
		100%	100%





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CONCLUSION

Training on making handicrafts, especially key chains and hijab brooches from resin (a crude oil derivative product) succeeded in increasing the knowledge and insight of class VII B students at MTS Negeri 7 Kampar regarding resin theory, the function and benefits of resin, and the types of *Novrianti et al.*46

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handicrafts that can be produced from it. resin, equipment and materials used for making resin handicrafts (crude oil derivative products), the process of making key chain handicrafts and hijab brooches as well as adding accessories (glitter, beads and dyes). The students successfully produced key chains and hijab brooches with various shapes and motifs. It is hoped that in the future students will be able to develop their abilities better so that they are more innovative and creative and can create more diverse motifs.

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BIBLIOGRAPHY

- 1. Ardi Prasetya Y, (2016), Pengaruh penambahan inhibitor alami terhadap laju korosi pada material pipa dalam larutan air laut buatan, Surabaya
- 2. Benabdellah, M., Benkaddour, M., Hammouti, B., Bendahhou, M., & Aouniti, A. (2006). Inhibition of steel corrosion in 2 M H 3 PO 4 by artemisia oil. *Applied Surface Science*, 252(18), 6212–6217. https://doi.org/10.1016/j.apsusc.2005.08.030
- 3. Indah T, S (2021) Analisis Pengaruh humidity terhadap laju korosi menggunakan graphine oxide cangkang kelapa sawit sebagai penghambat laju korosi
- 4. Tourabi, M., Nohair, K., Nyassi, A., Hammouti, B., Jama, C., & Bentiss, F. (2014). Thermodynamic characterization of metal dissolution and inhibitor adsorption processes in mild steel/3,5-bis(3,4-dimethoxyphenyl)-4-amino-1,2,4-triazole/hydrochloric acid system. *Journal of Materials and Environmental Science*, 5(4), 1133–1143.
- 5. Utami Wahyuningsih, Halim Rusjdi E.s (2017) Penanggulangan korosi pada pipa gas dengan metode catodic protection Pt Pgn Solution area Tangerang Power Plant 1-63
- 6. Bagir, A., & Pradana, G. E. (2008). Pemanfaatan Serat Eceng Gondok Sebagai Bahan Baku Pembuatan Komposit. *Teknik Kimia Universitas Diponegoro*, 1–7. http://eprints.undip.ac.id/36736/
- 7. Benabdellah, M., Benkaddour, M., Hammouti, B., Bendahhou, M., & Aouniti, A. (2006). Inhibition of steel corrosion in 2 M H 3 PO 4 by artemisia oil. *Applied Surface Science*, 252(18), 6212–6217. https://doi.org/10.1016/j.apsusc.2005.08.030
- 8. Handani, S., & Elta, M. S. (2012). Pengaruh Inhibitor Ekstrak Daun Pepaya Terhadap Korosi Baja Karbon Schedule 40 Grade B Erw Dalam Medium Air Laut Dan Air Tawar. *Jurnal Riset Kimia*, 5(2), 175. https://doi.org/10.25077/jrk.v5i2.219
- 9. Irianty, R. S., & Komalasari, D. (2013). Ekstraksi Daun Gambir Menggunakan PelarutMetanol-Air Sebagai Inhibitor Korosi. *Jurnal Teknobiologi*, 1, 7–13.
- 10. Lyons, W., Gary, P., & Michael, L. (2016). *Standard Handbook of Petroleum and Natural Gas Engineering* (3rd ed., p. 462). Elsevier.

Novrianti et al. 47



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- 11. Nani, M., Catur, P., & Ryan, prasetyo try. (2018). Pengaruh penambahan inhibitor organik ekstrak eceng gondok terhadap laju korosi. 2(2).
- 12. Tourabi, M., Nohair, K., Nyassi, A., Hammouti, B., Jama, C., & Bentiss, F. (2014). Thermodynamic characterization of metal dissolution and inhibitor adsorption processes in mild steel/3,5-bis(3,4-dimethoxyphenyl)-4-amino-1,2,4-triazole/hydrochloric acid system. *Journal of Materials and Environmental Science*, 5(4), 1133–1143.
- 13. Utomo, W. B., Murdiningsih, H., Kimia, J. T., Negeri, P., Pandang, U., & Indonesia, M.(2017). Pemanfaatan Ekstrak Kulit Buah Markisa Sebagai Inhibitor Korosi. 2017, 156–16