

Training and Assistance of Ecopreneurship for Senior High School Students in Surabaya

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ABSTRAK

Masalah yang dihadapi mitra adalah tidak semua siswa mempunyai kesadaran menangani sampah plastik secara benar dan sebagian besar siswa tidak mengetahui cara memanfaatkan sampah plastik menjadi barang berguna. Solusi yang ditawarkan yaitu melaksanakan pelatihan dan pendampingan *ecopreneurship* dengan membuat kerajinan tangan dari sampah plastik. Target luaran yang dicapai adalah: 1.) Mitra memahami dampak buruk sampah plastik bagi lingkungan sehingga lebih giat menangani sampah plastik. 2.) Mitra mempunyai keterampilan memanfaatkan sampah plastik menjadi barang bermanfaat dan layak jual, sehingga kelak lahir *ecopreneur-ecopreneur* baru. Metode pelaksanaan kegiatan yaitu: a) Melakukan pelatihan secara tatap muka di sekolah mitra. Mitra diberi penyuluhan tentang dampak buruk sampah plastik bagi lingkungan dan dilatih cara membuat kerajinan tangan dari sampah plastik. b) Melakukan pendampingan secara daring melalui media *whatsapps group* dan *video call*. Pendampingan ini untuk mengetahui penerapan materi pelatihan dan kendala yang dihadapi peserta. Mitra antusias mengikuti pelatihan *ecopreneurship* karena menambah pengetahuan tentang pengelolaan dan potensi ekonomi sampah plastik.

ABSTRACT

The partner's problems are: not all of students have the awareness to handle plastic waste well, and most students do not know how to utilize plastic waste into useful products. The solutions are: *ecopreneurship* training and assistance by making handicrafts from plastic waste. The output targets achieved are 1.) Partners understand the negative impacts of plastic waste on environment. 2.) Partners have the skills to utilize plastic waste into useful and marketable items. The method of implementing as follows: a. Conducting training at partner schools. Partners are given counseling on the negative impacts of plastic waste on environment and trained on how to make handicrafts from plastic waste. b.) Conducting online assistance via video call, to find out the application of training materials and the obstacles faced by participants. Partners are enthusiastic, it increases their knowledge about economic potential of plastic waste.

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1. INTRODUCTION

Surabaya is the capital of East Java province with population of 2,970,730 people based on Population Data in the second semester of 2020 (<https://surabaya.liputan6.com>). Surabaya's land area is 350.4 km² and sea covering an area of 190.39 km² which is divided into 31 sub-districts and 154 urban village. (<https://www.surabaya.go.id>). Surabaya is populated almost 3 millions people and constitute city of trade and industry has problem handling rubbish specifically plastic waste. Plastic waste still become serious problem and threatening for environment. Based on data from the Institute for Ecological Studies and Wetland Conservation, every year there are 8 million tons of plastic waste throughout Indonesia, especially Java. From the amount of this plastic waste, 3 million tons can be processed and 5 tons not managed. Some were thrown away, landfilled, burned and 2.6 million tons thrown away to river (<https://Suara.com>).

According to Surabaya Local Government Regulation No 5 of 2014, waste is remainder of human's daily activities and/or natural processes in congested shape. Plastic waste is all used or no longer used items whose materials are produced from non renewable chemicals (<https://jdih.surabaya.go.id>). Kumar (2011) in Tiara (2018) states that plastic is one of the macromolecules formed through a polymerization process. Polymerization is a merging process of simple molecule (monomer) through chemical processes become large molecule

(macromolecules or polymer). Plastic is compound elemental polymer compiler mainly from carbon and hydrogen. In making plastic, one of the raw materials often used is naphtha. Naphtha is the material produced from distillation oil earth or natural gas.

In the effort of handling plastic waste, Local Government needs support from many parties. They are academicians, Non-Governmental Organizations (NGOs), students and the community. The government also have to keep going continuously to overcome plastic waste problems with various methods.

Based on Dapodik data of Ministry of Education and Culture, total all over students in the city of Surabaya from level Play Group to SMA and SMK as many as 546,188 in 2023. There are 57,032 senior high school students and 60,387 vocational high school students (<https://dapo.kemendikbud.go.id>). As we know, rubbish from schools is one of rubbish contributor after industries, commerce, households and markets. Based on this fact, of course students' role are very important in manage waste in the school area because students are the most inhabitant at schools. It is very important to involve student in handle plastic waste in Surabaya because several reasons. First, students are the nation leader candidates in the future. Its crucial for them to get character education about responsibility, environment careness and life patterns orderly. Second, plastic waste increase significantly as a consequence of communities life style who prefer to shop online than conventional. Third, Indonesia needs many new businessman especially in the field of environment (ecopreneur). When it appears many new ecopreneurs so three problems will resolved all at once, that is economic, social and environmental. But now days, a few students who have awareness to manage rubbish well. This happen because of their limitations of knowledge and skills.

The partners of this community service are students at XII degree of Social Sciences Department (Science Knowledge Social) from Muhammadiyah Senior High School Surabaya 2 as many as 70 people. Students are 17-18 years old. The partners at XII degree means they will graduate from level high school education. After graduation, its time to make a choice whether continue their study or go to work.

Based on survey, most of partners throw away rubbish without sort first. There isn't any progress yet in waste management in the school area. Specifically there is no innovation in utilise plastic waste to make it become valuable products. If there are innovations of course will give economic benefit significantly than only thrown away. It is needed training and assistance or mentoring for the students to increase knowledge, awareness and skills in handle and utilize plastic waste potential economic. Partners need to get this knowledge and skills for expanding useful life skills for better future.

One of partner's problem is student not have awareness yet to handle plastic waste well. This shown by the students's behaviour in trashing, they throw away the rubbish without sort it first in accordance with kinds of the trash, that is organic and inorganic. Another Problem of the partner is most of them do not know the methods to utilise plastic waste become useful products, both for personal use nor for sale. This is shown by the fact, only a few students can mention the utilization of plastic waste.

We hope more students have awareness and join to be a part of overcome plastic. waste problems. They also need to expand their insight, skills and intentions become entrepreneur who bother about environment or ecopreneur. Indonesia still need many entrepreneurs, especially ecopreneurs to advance economy, improve welfare of society and coping problem of environment.

Encouraging efforts in growing intention of entrepreneurship becomes very important now days. Because in the labor market not achieve an equilibrium condition Equilibrium condition achieved if demand and supply of work force is equal or there is no unemployment. In Indonesia, supply of work force is higher than demand for labor. Whereas provider of jobs (entrepreneur/self-employed) in Indonesia is limited. By the spirit of entrepreneurship, new businesses rise, this will absorb excess of work force, and finally reduce unemployment (Khamimah, May 2021).

Joseph Schumpeter (1934) an economist and initiator theory of economy growth states entrepreneurs have an important role in development economic through creation of innovation, job creation, and welfare. The business world built by entrepreneurs will generate the development of productive sectors. The country that has a lot of entrepreneurs reach economic growth higher than others with a few entrepreneurs. There are five new forms of combinations formed by entrepreneurs, including (1) introducing new products or same product with new quality, (2) introduce the new method of production, (3) open new market, (4) obtain the new source of supply from new material or component, (5) run new organization in industry. Schumpeter also explained the correlation of entrepreneurial innovation and resource combination. This productive activity will increase the output of development, therefore the country will drive for creating new entrepreneurs as development accelerator (Darwanto, 2012).

The ability to see problem become a business opportunity and at the same time become problem solution of environment is the essence of ecopreneurship. The efforts to reduce waste and socialization the importance of entrepreneurship must keep going to avoid the negative impact of waste for humans and the environment. In the relation of above statement, the decision makers must generate to create new ecopreneurs to overcome both the problem of plastic waste and increase community income.

According to Kirkwood and Walton (2010) in Yunita Ismail Masjud (2020), ecopreneur is an entrepreneur who runs his business based on sustainability principles. It means, in his business practice not only think about financial profit, but involved in the environment preservation. Lubis (2015) stated that environmental, social and economic are the three main mover in increasing the amount of ecopreneur society. This concept called the triple drivers of ecopreneurship. It means that ecopreneurship in practice not only think about financial profit but strive realization a prosperous society and a better environment.

In the 1990s the term of ecopreneurship starts wellknown, then called entrepreneurship of environment. Gwyn Schuyler (1998) defines an ecopreneur is a businessman who operates his business not only for financial profit factors, but also concern to environment. Gwyn Schuyler stated that ecopreneurship known as entrepreneurship on environment and eco-capitalism.

Examining the positive values of ecopreneurship, then entrepreneurship that concerned on environment must be socialized and grown for students. If they have their own outlook on entrepreneurship, this students may build a start business by observing potential business surrounding them. Therefore they will have more productive activity when they enjoy leisure time after class. Students initiate an entrepreneurship, hopefully will be more happy and prosperous because they have extra income. They also have a chance to be a superior generation because already have more values, i.e. responsibility, discipline, skills, income and motivation of positive life. Hence, the students upon graduating from senior high school or as college students do not seek job vacancy, but they become job creators for others. It means, a part of solution on unemployment problem in Indonesia.

There are many choices of business related in ecopreneurship, one of them is making handycraft from plastic waste. At least there are four positive impacts from business of handycraft from plastic waste. First, reduce plastic waste therefore overcome the problem of pollution on environment. Second, this business become an extra income hence increase family welfare. Third, create job vacancy then can reduce unemployment. Fourth, become financial source for the businessmen, therefore they achieve a better life quality (Khamimah, June 2021).

Based on the partner's problems above, then given counseling about impact of plastic waste on environment and knowledge about potential economic of plastic waste. To solve partner's problems, then team of community service provide solution through training and assistance of ecopreneurship by creating handycraft from plastic waste (ecocraft).

Outcome targets achieved are 1.) The students expand the understanding of negative impact of plastic waste on environment, therefore they will be more active in handle rubbish in the school area. 2.) The students have skills in utilise plastic waste become useful goods, ie capable to make ecocraft. Ecocraft interpreted as a friendly handycraft on environment.

2. METHOD

The activity of this community service is carried out by face to face and online (in network) communications Details of implemented activities are below:

- Preliminary survey regarding plans of community service activity for the school by online communication. This is related to a request letter as a keynote speaker from the Principal of SMA Muhammadiyah 2 Surabaya.
- Identifying problems faced by partners directly.
- Conduct training about ecopreneurship conventionally (face to face) according to the problems faced by students. Training is carried out at the partner's school. Participants were provided knowledge about the negative impact of plastic waste on the environment and trained of how to make ecocraft.
- Provide online assistance via WhatsApp groups and video calls as a follow-up of training activities. Assistance is carried out to find out the application of training material and find out the obstacles faced by participants. By assistance, it is hoped that the community service team will receive input or feedback regarding the training that has been carried out.

In the implementation of this community service, the partners participate to provide training venue, providing parts of materials and tools for making ecocraft.

This community service activity uses external funds amounting to IDR 1500.000. It allocated for consumption, souvenir, banner, materials in making ecocraft etc.

Schedule of activities as follows:

Tabel 1. Schedule of Ecopreneurship Training, Wednesday, October, 18, 2023

Time	Training activities (face to face)	Implementer of activities
11.15 – 12.00	Preparation	All of the committees

12.00 – 12.15	Participants registration and documentation	The committee from college students
12.15 – 12.20	Opening the event	The committee from college students
12.20 – 12.25	Speech from STIESIA's lecturer	Tegowati, S.E., M.M.
12.25 – 13.00	Delivery of ecopreneurship material	- Dr. Dewi Urip Wahyuni, S.Pd., M.Pd., S.E., M.M. - Eka Yulianti, SE., MSi.
13.00 – 13.40	Practice of creating ecocraft	- Wininatin Kamimah, S.E., M.Si.
13.40 – 13.55	Question and answer and doorprize distribution	STIESIA:' lecturers
13.55 – 14.00	Prayer and closing the event	The committee

Tabel 2. Schedule of Ecopreneurship Assistance, Friday, November, 3rd, 2023

Time	Assistance activities (via <i>Video call</i>)	Implementer of activities
17.00 – 18.00	Participants are reminded of the assistance event at 7 p.m.	The committee
18.15 – 18.55	Preparation	The Committee
19.00 – 19.45	- Assistance of ecopreneurship material - Assistance of creating ecocraft material	- Dr. Dewi Urip Wahyuni, S.Pd., M.Pd., S.E., M.M. dan Eka Yulianti, S.E., M.Si. -Wininatin Khamimah, S.E., M.Si. dan Tegowati, S.E., M.M.
19.45 – 20.00	Question and answer, closing the event	STIESIA's lecturer

Tabel 3. Schedule of Community Service Activity, September 2023 – January 2024

Plan of activities	Implementation of activities (Months)				
	9	10	11	12	1
Preparation					
Formation of a community service team	✓				
Location surveyi	✓				
Mapping of problem identification		✓			
Training					
<i>Ecopreneurship Training</i>		✓			
Training of creating <i>ecocraft</i>		✓			
Assistance:					
<i>Ecopreneurship Assistance</i>			✓	✓	
<i>Creating ecocraft Assistance</i>			✓	✓	
Preparation of activity reports				✓	
Publication of report results					✓

3. RESULT AND DISCUSSION

The results achieved in the community service program of Sekolah Tinggi Ilmu Ekonomi Indonesia (STIESIA) Surabaya is capable to provide knowledge, skills and experience to partner about ecopreneurship. This activity provides contribution of knowledge, insight and skills for the students at XII grade, majoring in Social Sciences, SMA Muhammdadiyah 2 Surabaya. After the implementation of training, the students more understand about the negative impact of plastic waste on environment while not managed well. Even, now they understand the economic value of plastic waste. And many people have initiate to buid a business in utilise plastic waste. The kinds of the business are reuse of plastic bottle, handycrafts made from used of drinks and food wrap (ecocraft), making ecobricks, also bricks from plastic waste and cement to buid a house or other buildings. Handycrafts made of plastic waste form multipurpose bag, mat, map, pencils case, serving lid, and others. At this occasion, the students attain skills how to make a serving lid from used plastic glass, and multipurposse bag from used plastic wrap of coffee.

During the training activity, each participant provided one package of drinks and several snacks in the transparant goody bag. Participants divide into several groups, consisting of 5-6 students in each group. These groups have a challenge to make an ecocraft from used wrap of snacks and/or plastic glass from the snacks and

drinks that have been consumed. This challenge taught the students to have responsible on the plastic waste they were produced from their activity. This challenge also provides a knowledge that waste produced from daily activities is useful and valuable economically while skilled in using of this waste. The students were very enthusiastic accept this challenge. This was a new experience for them in making ecocraft, as well as refreshing from their routine school activities. The students get more enthusiastic when the committee of community service convey that will chose the best three ecocraft and of course provided presents. After take 45 minutes of making ecocraft, it's time to collect their work at the front of class. A group of students made a vase, while other groups made a pencil case from plastic glass, multipurpose bag, mini basket for candy, backpacks and others. Students's imagination to create an ecocraft were really proud.

The activity of this community service also delivers benefit for the college students accompanying this implementation of the activity. They also attained knowledge, insight and skills about ecopreneurship. After activities, these college students also had another alternative on career, that is as an ecopreneur after graduating.

Outcomes achieved in the activity of this community service includes :

- a. Students expand their understanding about negative impact of plastic waste on the environment, therefore emerge positive behavior in handling waste in the school area. Now, participants also understand the economic value of plastic waste.
- b. The students were enthusiastic and happy to have the skills how to use plastic waste into useful items, be able to make ecocraft. Ecocraft is defined as environmentally friendly handicrafts. The word ecopreneur has entered to their memory, hence it could become a choice of profession for them in the future.
- c. For the Community Service Team, it can be used as a reference to conduct further training for other senior high school students regarding ecopreneurship.
- d. Publication in online media in the form of community service journal.



Figure 1. Examples of ecocraft



Figure 2. Practice of creating ecocraft



Figure 3. Ecopreneurship Training activity



Figure 4. The best three of cteating ecocraft

4. CONCLUSION

The students at XII grade of majoring on Social Sciences, SMA Muhammdadiyah 2 Surabaya expanded their understand about negative impactof plastic waste on environment, therefore appeared awareness to bother about waste managemet in the school area. They also understand the economic value of plastic waste. The students were happy for having new skill, that is utilization of plastic waste, namely ecocraft.

Most of the participant were interested in the topic of ecopreneurship because in line with current issues on environment such as green economy, economy circular and others. We have a great expectation, the partners will behave that have positive impacts on environment and become an ecopreneur in the future.

The participants of this training expected keep going apply positive behaviours on environment wherever they are. Training about ecopreneurship should be encouraged for teenagers, therefore they attain many better

outlooks about insightful entrepreneurship on environment. This matter will have a great positive impact both on environment sustainability and problem solution of economy in society.

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