

THE EFFECTIVENESS OF RECYCLE WASTE MODULE BASED ON ECOPRENEURSHIP TO INCREASE THE ENTREPRENEURIAL INTEREST

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Abstract

Learning goals achievement based on the 2013 curriculum, students need a learning program with soft skill development that should be trained. One of the soft skills that students need is the entrepreneurial skill. Entrepreneurial education applies the principle of entrepreneurship through ecology learning (ecopreneurship). This research aimed to describe the effectiveness of recycling waste module based on ecopreneurship to increase entrepreneurial interest. This research used a 4D model. The trials activity was limited to 20 students X grade in SMA Negeri 1 Kedamean. The research design was a pretest-posttest control group design. The data collection technique used: (1) rating score questionnaire; (2) qualitative responses questionnaire. The research data was analyzed by (1) Gain score; (2) descriptive qualitative. The research result: (1) Increased entrepreneur interest of students after using ecopreneurship module with an average score of Gain score 0.31 with the medium category; 2) Students response to ecopreneurship module was very good with an average value of 98.75%.

Key Words: Module, ecopreneurship, entrepreneurial interest, waste recycle .

INTRODUCTION

Education should encourage students to be more concerned about issues that occur in their environment, can solve problems that occur around them, think creatively, explore alternative ideas and think out of the box (Khotimah et al., 2016). Biology learning directed only at the mastery of the concept only will make students only able to memorize the concepts taught, but not able to apply the concept in the daily life so that less development of skills of learners. It needs innovative biology learning that can inculcate the skills of soft skills and hard skills in a balanced way. One of the soft skills that must be possessed by students is entrepreneurship skill. Entrepreneurship-oriented education is a teaching that applies principles and methodology to the internalization of entrepreneurship values in learners through a curriculum that concretely integrates the material so as to create a contextual learning (Langer, 2014).

Innovative and entrepreneurial eco-oriented learning is Ecopreneurship. Eco-Entrepreneurship that can be abbreviated with ecopreneurship, which is the

ability to think innovatively and creatively to solve environmental problems by creating something new and different by exploiting opportunities that exist around the environment and make products that can generate financial benefits (Isaak, 2002). Implementation of eco-entrepreneurship in learning can improve the life skills and entrepreneurship interest of students in Madrasah Aliyah based Pesantren in Cirebon. Learning activities are implemented in the discussion, literature study and product skill activities that can generate student creativity. The application of student-centered learning can improve students understanding and positive thinking about entrepreneurial interest (Fitriah, 2012).

Learning methods that require students to combine the ability to see a business plan by combining the concept of learning, as learning media in schools, so it can increase the entrepreneurial interest of students (Alma, 2008). Ecopreneurship-oriented biology learning can serve as an alternative contextual biology learning approach that can stimulate life skill creativity. The learning of this material is related to

one of the learning objectives in biology which is the realization of the Indonesian people who have awareness of their environment (Rustaman et al., 2010).

The aimed of this research was to describe the effectiveness of ecopreneurship modules reviewed based on the questionnaire of entrepreneur interest of students and the response of students to the module developed.

METHOD

This research used the 4D model that was defined, design, develop (develop), and disseminate (Thiagarajan, 1974). But this research was done until the development stage (develop) only. The module development was held in the Department of Biology of Universitas Negeri Surabaya on August 2017 until May 2018 and the trials activity was limited to 20 students of grade X in SMA Negeri 1 Kedamean in the even semester of academic year 2017/2018. The research design used was the pretest-posttest control group design. Data collection techniques used, (1) Questionnaire rating scale of the students entrepreneurial interest; (2) questionnaire response of learners. Research data were analyzed using (1) Gain score; (2) qualitative descriptive.

$$N - gain = \frac{S_{posttest} - S_{pretest}}{S_{maksimum} - S_{pretest}}$$

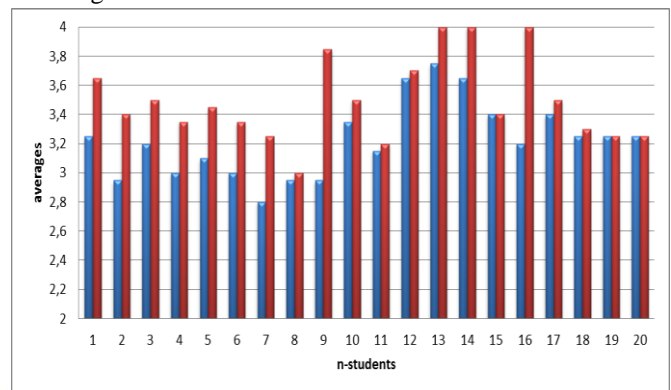
RESULT AND DISCUSSION

The result of this research was to describe the effectiveness of ecopreneurship module on waste recycling material-sub. Assessment of the effectiveness module used the questionnaire of entrepreneurial interest and student response questionnaire.

1. The Effectiveness of Ecopreneurship Module on Waste Recycling Sub Material to Increase Student Entrepreneur Interest Based on Entrepreneurial Interest.

The effectiveness of the module was reviewed based on the questionnaire results of students entrepreneurial interest. The questionnaire was given to the students before using the module (pre-test) and after using the module (post-test). The pre-test and post-test results were calculated using the N-Gain Score. This calculation used to determine the enhancement of students entrepreneurial interest. Student entrepreneur interest was measured using student interest questionnaire which consists of six components that were confident, task-oriented and result, risk-taking, leadership, and result oriented.

Recapitulation sheet of the questionnaire of entrepreneur interest of learners was presented in Figure 1.



Informations: ■ before; ■ after

Figure 1. Graph of the students entrepreneurial interest before and after using ecopreneurship module.

Based on the graph above, the average of post-test and pre-test on 20 students increased, while 3 students did not increase. The results indicated that the enhancement in the entrepreneurial interest of students was included in the Medium category.

Interest is an acceptance between self and external factors so that can be changed at any time. Hence that people's interest may change depending on the factors that influence it. This showed from 20 respondents, 3 respondents did not have an increase in entrepreneurial interest. Three students who did not an increase in entrepreneurial interest because the students did not follow the instruction of the teacher and did not do the module well, this was supported by the opinion of McEwen (2013) that one factor that can affect people's entrepreneurial interest was psychological factors, where psychological factors consists of motives, attention, and feelings. In this case, the three students were not concerned about what the teacher explanation and the module direction, so their entrepreneurial interests did not increase.

An overall the entrepreneurial interest of students has improved after using the ecopreneurship-oriented module, according to Fidiastuti and Rozhana (2016), the module preparation aimed to provide teaching materials that can be facilitated students in achieving competency standards, in the form of hard skills and soft skills. This was also supported by the opinion of Suryana (2013) that one way to increase entrepreneurial interest was by using the module because by using the module that can provide information and activities that can be done independently based on of the module guidance, the reader can give his ideas and creativity in creating a

product. Hence readers can improve the entrepreneurial spirit through the entrepreneurship module. According to Pihie and Sani (2009), learning with entrepreneurship approach can improve student entrepreneurship attitude and student skills. Learning activities are implemented in the form of discussion, literature study and product skill activities that could generate student creativity. The application of student-centered learning can enhance students' understanding and positive thinking about entrepreneurial interest.

2. Students Responses of Ecopreneurship-oriented Module Response on Waste Recycling Materials to Enhance Entrepreneurial Interest.

Module Responses which is the form of a response questionnaire given to students to determine the students' response of after using ecopreneurship modules that have been developed, presented in Figure 2.

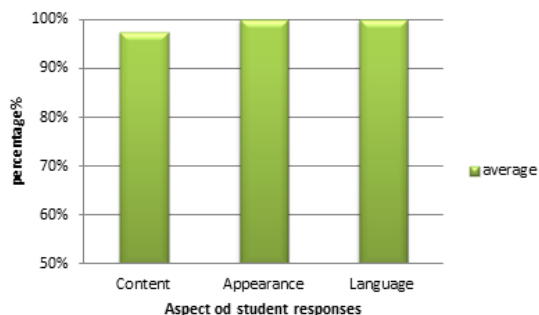


Figure 2. Student Responses of Waste Recycling Module Based on Ecopreneurship.

Based on the students' responses, the effectiveness of ecopreneurship module generates an average was 98.75% in general with very good category. Seen 14 questions divided into 3 components namely the content feasibility component, linguistic components and presentation components on the students questionnaire filled by 20 participants after using the students module

Students response on the component of the material feasibility has a very good category. This indicated that the module developed contained relevant material in accordance with ecology material and there is information that can add insight into the students, knowledge of principles and ways of processing waste recycling ecopreneurship oriented. According to Prastowo (2014) a good teaching material that contained material in accordance with materials and provide additional information to students.

The results of the students' responses to the language component were also categorized very well. This suggests that the module developed has a simple and easily understood, communicative language structure that did not lead to multiple interpretations and used a well-refined spelling. Supported by Herawati state (2013) that features a good module was, uses communicative language and in accordance with EYD, easy to use by using the module.

While the results of student responses on the presentation components were categorized very well. This showed the modules used to get a good response from the students, consistent and systematic material, provided images with clear information and support the features. Based on Izzati's (2013) opinion that the layout (including design, drawing / illustration, writing) was very important in the process of making the teaching materials. The presentation of instructional materials should interest to the students who use, making the reader more comfortable and enjoyable.

CLOSING

Conclusion

Based on the results of this research has been done, it can be concluded that the module ecopreneurship on waste recycling materials declared effective to increase students entrepreneur interest with the average score gain score of 0.31 with the category and the response of students to the module very well with an average of 98,75%.

Suggestion

This study used only gain Score as a method of data analysis of entrepreneurial interest, so it needs to be researched again using other methods of data analysis.

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