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LAND OPTIMIZATION EDUCATION IN THE SCHOOL ENVIRONMENT FOR CROSS-CULTURAL STUDENTS

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ABSTRACT In the current era of rapid technological development and urbanization, it is important for us to understand and utilize land optimally, especially in school environments. This Community Service aims to provide education about how to optimize land in the school environment for junior high school students in Thailand and Malaysia. Implementation of activities is carried out using a hybrid method, namely offline and online. Activities will be held on December 13-14 2024. The aim of this PKM material is to provide students with an understanding of how to optimize land in the school environment and their role in maintaining and utilizing environmental resources in a sustainable manner. The topic of discussion in this material is understanding the basic concepts of land optimization, introducing land types in the school environment and several types of herbal plants and understanding the importance of efficient land use. In closing, this material provides motivation to apply the concept of land optimization in everyday life, as well as giving assignments to students in groups to plan small land optimization projects in their school environment. As a result of this activity, students can understand and apply the concept of land optimization in various contexts of their lives.

KEYWORDS: *Environmental Resources, Land Optimization, Sustainable.*

1. INTRODUCTION

In this era of rapid technological development and urbanization, it is important for us to understand and utilize land optimally, especially in school environments. The land around us can be

used for various activities that are not only beneficial for education, but also to support environmental sustainability.

The school environment can be interpreted as an area that influences students' development and behavior in carrying out their activities in an effort to obtain changes in the form of knowledge, attitudes and skills (Warsita, 2008). Thus, education is needed for students regarding how to optimize land use in creating a healthy, clean and beautiful school environment to support a great, intelligent and qualified young generation.

Optimizing land in schools is not just about planting plants or building gardens. This is a process that involves planning, maintenance and good management so that the land can provide maximum benefits. This includes the introduction of various sustainable agricultural techniques, the use of green open spaces as a solution to this problem through urban farming (Bogor City Agriculture and Food Security Service, 2020), and practical innovations such as hydroponic gardens and vertical gardens. By applying these concepts, students can learn and contribute positively to the environment.

In line with the understanding according to Mardiyanto (2021) and Gusti Marliani (2022), that land optimization is an effort to utilize land resources efficiently in order to produce maximum results by considering aspects of environmental sustainability. In this sense, management does not only focus on production aspects, but also on ecosystem sustainability.

Several types of land in the school environment that can be optimized are open green land, school gardens which can be used for agricultural practices, environmental classrooms, namely areas outside the classroom for learning activities. Planting empty land is one way to green the environment and reduce greenhouse gas emissions and maintain the global climate (Nita et al. 2023).

Apart from that, optimizing land in the school environment also provides opportunities for students to be directly involved in agricultural practices and preserving the environment. Through planting and caring for plants, students can experience for themselves the benefits of interacting with nature and learn about the importance of biodiversity. This is an educational tool that does not only rely on theory, but also direct practice that can encourage creativity and innovation. The findings from the community service activities of Sri Rahayu Prastyaningsih, et al (2024) for high school students show that there is an increase in students' knowledge that planting trees on land can create microclimate changes.

It is hoped that this education, even through networking, can increase students' awareness of the importance of maintaining and using land efficiently and responsibly. By increasing their knowledge and skills, students are expected to become active agents of change in protecting the

school environment and its surroundings. Collaboration between all parties, including students, teachers and parents, is very necessary to create an environment that supports the optimization of land in schools.

2. METHOD

The method for implementing PKM is carried out in a hybrid manner, namely combining offline and online learning through online recorded material presentations, which will be carried out on December 13-14 2024. The target audience or audience for this learning material is aimed at junior high school students in Malaysia, and Thailand.

The main learning material is related to the basic concept of land optimization, realizing the importance of efficient land use, the types of land in the school environment, and the importance of land optimization in everyday life for students. The material is presented through communicative slide presentations through examples of pictures and practical activities for implementing land optimization through videos that are interesting for junior high school students with simple language or sentences that are easy for them to understand.

Through this activity as the final material activity, students are given motivation to apply the concept of land optimization in their daily lives and are given the task either individually or in groups to plan a small project about optimizing land in their school environment and discuss it with their supervisor, community or with his parents..

3. RESULT AND DISCUSSION

The implementation of International PKM is carried out in a hybrid manner, namely carried out directly at the activity locations in Thailand and Malaysia, and witnessed or attended directly by offline participants and participants and presenters via zoom meeting, with the following topic and zoom link: Topic: International PKM V Yala , Thailand, Time: Dec 13, 2024 08:30 AM Bangkok, Meeting ID: 952 5485 4375, Passcode: 072532, Join Zoom Meeting
https://telkomsel.zoom.us/j/95254854375?pwd=Y2LBPVIcneagtwgatU6H2ZJolJFlDz.1

Figure 1. Banner for International PKM Activities & Hybrid Implementation

Community Service Activities (PKM) V was held on 9-14 December 2024 in the two countries Thailand and Malaysia. The aim of this activity is to strengthen cross-cultural collaboration and empower teachers and students through education, which is implemented in a hybrid manner. The opening event began with remarks from the Project Manager and Director of LMS Sharing as well as representatives from Lukmanul Hakeem School teachers, Yala Thailand.

The offline activities will take place in the Lukmanul Hakeem School Hall, Yala, Thailand on Friday, December 13 2024, and at the Muhammadiyah Guidance Studio, Kampung Baru, Malaysia on Saturday, December 14 2024. With the theme "Empowering Teachers and Students Through Education and Cross- Cultural Collaboration", this event is designed to build synergy in the world of education while strengthening cross-cultural relations in the Southeast Asia region. Online participants can watch live via zoom meeting.

Material presentation activities for offline participants are interspersed with material presentations from online participants, through playing videos of material presentations. The following is a screenshot of the results of the PKM material presented by the author:

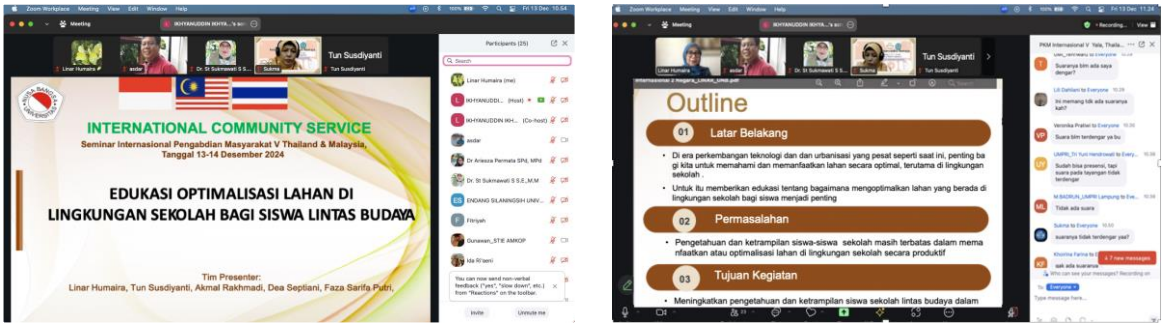

Figure 2. Screenshot as an Online Presenter

This service is carried out through an asynchronous Direct Instruction learning model approach, namely learning that focuses on direct teaching by the presenter. The presenter provides clear and measurable instructions to students, teaches concepts, provides examples, facilitates

understanding (M. Sobry Sutikno, 2022). Learning is carried out with an emphasis on practice and practice through assignments that can be carried out by junior high school students and discussed with their accompanying teachers.

1. Material topics covered include:

   Introduction to the basic concepts of Land Optimization, outlining the definition and objectives of land optimization. There are several definitions of land optimization according to experts, including those previously mentioned, according to Soemarno (2012), stating that land optimization is an approach that aims to increase the efficiency of using land resources by determining suitable plant types based on land characteristics, as well as the technology used in cultivation to achieve better results. Participants are taught how to utilize land around the school environment, especially schools that have school gardens or green open areas. Apart from that, practical examples were provided through showing photos of land use activities such as selecting plant types and planting various types of herbal plants intercropped with vegetable plants.
2. Types of land that can be optimized in the school environment, including School Gardens which can be used as a model for urban agriculture, Green Open Lands whose function and benefits are for students and the environment, Environmental Classrooms that use areas outside the classroom for activities Study. This material is also accompanied by examples and practice through individual and group assignments.
3. Introduction to several types of plants that can be planted in school gardens, as well as introducing and identifying several types of herbal plants that can be planted together or intercropped with vegetable plants. This activity provides an understanding of several types of herbal plants and identifying them. Apart from that, it provides examples to make identification easier by making barcodes.

It is hoped that the results of this activity can provide various positive developments for students that can be put into practice in everyday life, especially in maintaining sustainability and preserving the environment. After understanding the material presented, students can become more aware of the potential of natural resources in their school environment. Students can utilize the potential of their school garden, get to know land that can be optimized to utilize its potential and students can become more familiar with several types of herbal and vegetable plants and practice them for agricultural applications. In line with the results of activities carried out by Sri Sumarlini et al. (2024), that encouraging community interest in managing yards, idle land and unproductive empty land can minimize household expenses.

This activity can create student awareness in maintaining the balance of the ecosystem around the school, foster new ideas in using land, how students can be involved in protection campaigns in the school environment, and collaborate with parents, teachers and the community to support land optimization, and can plan a community service day to clean and prepare the grounds at school. In line with this, Ryzka Dwi Kurnia, et al. (2024) stated that the dual role of teachers as educators and role models in elementary schools, emphasizes how they can challenge stereotypes, promote inclusivity, and inspire students to reach their full potential.

The conclusion of this activity is by repeating the important points that have been conveyed and encouraging students to actively participate in optimizing land in their schools and giving assignments both individually and in groups to be able to practice or apply them in their schools with the guidance of their accompanying teachers.

4. CONCLUSION

This PKM activity can introduce students to the concept of optimizing land in the school environment, getting to know various types of land in the school environment and getting to know various types of herbal plants that can be applied as urban farming model practices in school gardens or open land in the school environment. Students will gain a better understanding of how to optimize land in their school environment, and their role in maintaining and utilizing environmental resources in a sustainable manner.

As a recommendation for future PKM activities, activities can be more interactive through other learning media, as well as ongoing materials to develop students' practical skills that are beneficial for their future and society.

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