



## Analisis Potensi Lingkungan Kampus Sebagai Sumber Belajar Biologi

### *Potential Analysis of the Campus Environment as a Biology Learning Resource*

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#### Abstract

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The purpose of this research is to describe the benefits of the campus environment as a source of learning biology. So many learning difficulties experienced by students on campus. Utilization of various learning resources such as the campus environment is an effort to solve the problem of student learning difficulties. By learning directly in the natural environment, the learning experience experienced by students is more meaningful. Through direct learning in nature or the surrounding environment as a source of learning, it is able to make learning experiences concrete so that learning becomes optimal. The campus environment can be used as a learning resource for several relevant subjects. This research is a descriptive research from a literature study emphasizing the potential process analysis method of the environment around campus 4 of State University of Gorontalo as a source of learning biology. Campus 4 environment of Gorontalo State University, Bone Bolango Regency can be used as a learning resource in several subjects such as plant diversity, low-level and high-level plants, mycology, entomology and so on. This is due to the condition of the campus 4 environment of Gorontalo State University which is still beautiful and cool and has many tall and large trees, low-level plants that are still maintained, has many species of fungi and insects and so on.

**Keywords:** Campus Environment; Biology Learning Resource

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## INTRODUCTION

Many students experience difficulties in studying biology, including students on campus. The difficulties in studying biology experienced by students who are able to hinder their learning can be seen from several indicators that impede student learning, namely psychiatric indicators, off-campus activities, motivation, parents, economics, home atmosphere, lecturers, campus environment, lecture materials and learning media (Tamba, 2020). From the results above it can be seen that one of the indicators that hinders the student learning process is the campus environment and learning media. In addition, according to Andriani (2023) that what causes student learning difficulties apart from interest and motivation is also influenced by aspects of learning resources and circumstances. Meanwhile, according to Ginting (2017) the highest student learning difficulties are the campus environment. The internal



factors or factors that originate from within the students themselves are factors of interest and readiness to learn (Suyedi, 2019).

Learning biology is very close to finding out (inquiry) about nature systematically. Learning biology is expected to be a vehicle for students to explore more deeply about themselves and the natural surroundings, providing learning experiences in understanding scientific concepts and processes. Biology learning is of course learning that emphasizes direct learning experiences in order to develop students' competencies in observing the environment or the natural surroundings scientifically. Thus, the learning experience experienced by students is more meaningful. Through direct learning in nature or the surrounding environment as a learning resource, it is able to make learning experiences concrete so that learning becomes optimal and improves students' biology learning outcomes (Khanifah, 2012).

The importance of adequate learning resources in the biology learning process, if the learning resources are good and adequate can maximize and improve learning outcomes. A good learning process by making all the potential, resources and learning resources a place to dig up information and have a fun and meaningful learning experience. If learning is fun and meaningful, we can avoid learning difficulties. The campus environment can be used as a good and adequate learning resource for students (Waluyati, 2020)

Based on the description above, student learning difficulties can originate internally or externally from the students themselves. External aspects that can affect the learning process and become difficult for students are the learning environment, especially the campus. The campus environment can be used as a learning resource in biodiversity courses (Andira, 2021). The campus environment can be used as a learning resource for several relevant courses such as environmental science courses, mycology, entomology, biodiversity, higher plants and lower plants and so on.

## **METHODS**

This research is a descriptive research from a literature study emphasizing the potential process analysis method of the environment around campus 4 of State University of Gorontalo as a source of learning biology.

## **RESULTS & DISCUSSION**

### ***Results***

The concept of learning resources as everything from which we get convenience in providing information, knowledge and skills and being able to change behavior to students in the learning process. Some definitions of learning resources include materials that include learning media, teaching aids, game tools from which students obtain information, knowledge and skills which can be in the form of writing, pictures, photographs, resource persons, natural objects and cultural objects (Khanifah, 2012). Learning resources according to Hafid (2011) are anything that contains messages to be conveyed using tools or by himself. Learning resources can be interpreted as messages, people, materials, tools, techniques and settings. Learning resources must be developed and managed in a systematic, functional and quality manner. Several factors that influence the use of

learning resources are internal factors and external factors. Internal factors include awareness, enthusiasm, attitudes, interests, metacognition, self-comfort and skills of users of learning resources. While external factors are the availability of various learning resources, ease of accessing learning resources, learning processes, space, human resources, and traditions and policies that apply in educational institutions (Abdullah, 2012).

The main components of learning resources are 1) Messages, as lessons or information that are passed on in the form of ideas, facts, meanings, data, etc.; 2) the human/person component as a store, processor, message presenter; 3) tool components for conveying messages stored in the material; 4) components of technical procedures in the form of tools, materials, equipment, people or the environment to convey messages. Based on this component of learning resources, learning resources can be interpreted as anything that is designed intentionally or pre-existing that we can use optimally both individually and together in order to help students in the learning process.

Learning resources are classified into 5 categories based on their shape, namely 1) the natural environment, everything in nature is a place for students for the learning process, for example libraries, museums, rice fields, mountains, sea and the campus or school environment; 2) objects, all objects that allow the learning process to occur, changes in student behavior for example, historical sites, temples, forts and relics, cameras, gadgets, OHP, radio, television, tape recorders, DVD/VCD and others; 3) people, anyone who has expertise and competence, all have the potential to become places of learning, for example teachers, lecturers, scientists, politicians, policy makers and so on; 4) books, all books that students can read independently, for example textbooks, dictionaries, encyclopedias, and so on; 5) events and facts that have occurred or are currently occurring, for example conflict events, wars, birth processes, natural disasters and so on (Prastowo, 2014). Based on this, there are various kinds of learning resources, some are human-based, print-based, visual, audio-visual and computer.

Analysis of learning resources is carried out starting from the basis that the need for availability is related to whether or not there is potential that can be used as a learning resource, looking at the suitability between potential learning resources and learning objectives, considering the ease of whether these learning resources are easy to use and develop for the learning process. After all of the above analyzes have been carried out, we determine or map out what potentials exist on a particular campus or area to be used as learning resources. The way to identify potential and determine learning resources is to carry out a needs analysis of biology learning resources in the form of more in-depth identification of the local potential that exists around according to the characteristics of the area. Next, analyze the learning needs of biology from biology books that are commonly used by teachers as learning resources based on the characteristics of the current curriculum. After that we carry out an analysis of the learning needs of students who are service-oriented according to the characteristics of students and develop the potential possessed by the school. The next stage is to analyze the potential of the school or campus as well as its characteristics that are relevant to the needs of learning resources. The last part is to determine the potential of the most representative regional environment as a source of learning for related materials.

The concept of the environment as something that is very important in supporting human life can also be the most effective source of learning. The importance of maintaining the environment properly by developing science and technology (Aini, 2014). The environment and humans cannot be separated, the environment is a place to live and a place to learn. The environment that can be a source of learning includes 1) the surrounding natural environment, by studying nature and its contents such as the diversity of living things, biodiversity, ecosystems and so on; 2) artificial environment that is deliberately created to be utilized by humans; 3) the social environment which is the interaction of society and its environment (Rivai, 2005).

Utilization of various learning resources such as the campus environment is an effort to solve problems or learning difficulties. Prior to the use of the internet, as now, teachers used teaching materials and textbooks as the dominant learning resources. However, with the current conditions, through the use of computers and devices that are used as learning resources, all information can be accessed easily and quickly. Utilization of the campus environment as a source of learning biology for students is also inseparable from an effort to reduce learning difficulties experienced and provide a more meaningful learning experience (Supriadi, 2017). Learning can be done anywhere, it can be in schools, offices, places of worship, the natural surroundings and so on.

## ***DISCUSSION***

Learning resources can be obtained from anywhere, especially in nature as an abundant potential that can be utilized in learning, especially biology. The environmental potential around Campus 4 of Bolango State University which is located in Tilongkabila District, Bone Bolango Regency is so great. In using the campus environment as a biology learning resource, it is necessary to know several things before its use, namely 1) Analyzing the curriculum, by knowing the curriculum and graduate achievements (CPL) which are the goals and the achievements of the courses which are the learning objectives will make it easier for teachers or lecturers to direct students in utilizing the campus environment as a source of learning; 2) Determine the characteristics of the biology material to be taught, for example material in the form of processes, facts or concepts so that it will make it easier for us to map the campus environment that will be used for learning resources; 3) It is necessary to see the relevance of the chosen method with consideration of the characteristics of the material to be taught. Learning methods and material characteristics become a reference in determining what kind of campus environment will be used as a learning resource. For example, with the project method with material characteristics in the form of procedures for examining the diversity of types of macroscopic fungi, the campus environment can be used as a source of learning by looking at the environmental conditions around the campus that are suitable for the growth of macroscopic fungi; 4) Determine the characteristics of students with local geographical conditions. Students with basic housing with hilly or mountainous conditions in the village will find it easier to choose and use a campus environment that is the same as the conditions of their village compared to desert ecosystems. There is a difference in experience between students who live in coastal areas and those who live in mountainous areas. Students

who live in cities with adequate internet facilities and students who live in villages with inadequate internet network conditions will of course be different; 5) ensure the potential of the environment around the campus to be used as a source of learning biology by considering aspects of relevance, curriculum and learning objectives, materials to be taught. The relevance of the potential of the campus environment to the material and curriculum and learning objectives to be achieved is very important (Susilo, 2018).

The potential of the campus environment as a source of learning biology is very possible because of the availability of materials to teach material from several courses in the biology department. For example, for mycology courses, you can take advantage of the campus environment of 4 Gorontalo State University, Bone Bolango Regency. Mycology is a scientific discipline or branch of biology that studies fungi. Several student studies have found 70 species of macroscopic fungi found in the campus environment of 4 Gorontalo State University. This finding is a huge potential to make the campus environment a learning resource for mycology courses. Another example is the subject of Botany of Lower Plants and Higher Plants which is very suitable to make the campus environment of Gorontalo State University as a source of learning. This is due to the natural conditions of the Gorontalo State University campus 4 environment which is near the hills and still has many tall and large trees, rivers and low-level plants that are still well maintained. Several types of insects are still commonly found in the campus environment and are used to make insectariums for learning in entomology courses. Entomology is a branch of biology that studies insects. In addition, environmental science courses can also use the campus environment as a source of learning to achieve learning objectives in these courses.

## CONCLUSION

The conclusion of this study is that the campus environment of Gorontalo State University can be used as a source of learning biology for several subjects that are relevant to the environmental conditions of the campus. Campus 4 environment of Gorontalo State University, Bone Bolango Regency can be used as a learning resource in several subjects such as plant diversity, low-level and high-level plants, mycology, entomology and so on. This is due to the condition of the campus 4 environment of Gorontalo State University which is still beautiful and cool and has many tall and large trees, low-level plants that are still maintained, has many species of fungi and insects and so on.

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