

CHAPTER I

INTRODUCTION

1.1 Background

Environmental education is an effort to change behavior and attitudes carried out by the community which aims to increase knowledge, skills, and public awareness of environmental values and issues for the benefit of the present and future generations. Students as a subject of education have a role in maintaining, preserving and solving environmental problems. So students must be educated to know, realize, and believe in environmental education and this education has an impact on increasing knowledge and skills in forming positive attitudes and behaviors (Ardianti, 2017).

The environment has a meaning that is so important for the survival of living things. Human life cannot be separated from the environment, both the natural environment and the surrounding environment in the form of ecosystems that exist in the environment. The environment is usually divided into biotic and abiotic environments. If you are at school, the biotic environment is in the form of friends, teachers and employees and everyone in the school, as well as various types of animals and plants around the school environment. The abiotic environment is in the form of air, tables, chairs, blackboards, school buildings, and various kinds of inanimate objects around (Fahrudin, 2016).

The environment can be an approach in the learning process, because the environment has many sources that can be used as examples in learning, especially in biology learning which is closely related to nature. Learning with the use of the environment provides a good increase in student achievement. This is in line with the results. research by Ibrahim (1995) states that the use of living natural resources based on the environment can support the learning achievement of students. Prastowo (2014), also suggest that students who use nature as a learning resource become closer and know more about nature and can support

their achievements in studying, especially studying Biology. Students can learn outside the classroom by observing, seeing, and interacting directly with objects. SMAN 1 Berastagi has an environment that can be optimized by teachers, especially to introduce the concept of Biodiversity. The environment consisting of school parks and school fields has potential as a source of biodiversity because there are several diverse forms of genes, types, and ecosystems. However, at present, the school environment has not been utilized as a media and learning resource.

One of the biological materials that have a lot to do with nature is the material on biodiversity, so it is more appropriate if the learning process is environmentally based. The use of the environment around the school as a learning resource of Biology especially material on Biodiversity can make it easier for students in absorbing learning material and to know more and to closer the environment. Biodiversity is one of the most important topics of discussion. In accordance with the 2013 curriculum, the basic competencies to be achieved are that students are able to apply the understanding of the importance of diversity and classification of plants, and are able to apply the principles of grouping living things to study biodiversity for life. Biodiversity is the diversity of organisms that shows the overall variation of genes, types and ecosystems in an area. This material is taught in the odd semester of class X, even though students have not yet gained knowledge about genes and ecosystems. Material on ecosystems was delivered in the even semester of class X. This ecosystem material has also been obtained at the junior high school level, but at the junior high school level, the new ecosystem material is limited to the food chain and material on genetics is delivered in the even semester of class XII.

Therefore, many students feel less interested to understand the concept of biodiversity. The available learning resources are not yet feasible and in accordance with the 2013 Curriculum. Thus, appropriate teaching materials are needed in order to guide students in understanding the concept of biodiversity. In these learning resources, it is necessary to provide introductory material about genes and ecosystems so that students do not experience difficulties in studying biodiversity material. Therefore students expect interesting learning resources,

with concise and easy-to-understand material that can be used as learning resources. One of the learning resources that can be used as a learning resource for students is a booklet.

Booklet is a small book that has a function as a leaflet to convey messages or information (KBBI, 2008). The booklet is one of the printed media used to convey messages in the form of summaries or interesting images. The booklet itself is a small and thin book, no more than 30 pages back and forth containing text and images. According to Imtihana (2014), shows that the use of booklets is very effective for improving student learning outcomes. This is evidenced based on research that has been done in which obtained learning outcomes in students on biodiversity materials achieve learning completeness $\geq 80\%$. With a value of ≥ 80 , as well as feasible to use with an average validation of material and media research results of 91.5%. The design component of the booklet learning has the advantage of being able to be student-centered, in accordance with the subject and able to stimulate the depth of student thinking.

Development of learning resources in learning biodiversity materials utilizing the environment to overcome the student learning difficulties. The booklet learning resource is prepared using pictures taken around SMAN 1 Berastagi. With a display that can attract students' interest in reading and the contents of the material that can be easily understood by students. The development of learning resources is expected to increase the collection of learning media and improve student learning outcomes.

1.2 Problem Identification

Based on above the background a number of research problems can be identified as follows ;

1. There is a tendency that in average student interest in reading book is declining.
2. The biology textbook used is not based on environment
3. The absence of biology learning resources in the form of booklets which can be used as learning resources for grade x sma / ma students;

4. Learning resources in the form of booklets with material on environment-based biodiversity were not developed.

1.3 Problem Scope

In order for research not deviate from the research objectives, it is necessary to scope the problem as follows ;

1. The contents of the booklet being developed are about biodiversity.
2. The feasibilities of the booklet will be based on the experts evaluation such as material expert, media expert, and biology teacher.
3. The research evaluation was conducted at SMA Negeri 1 Berastagi by using a limited test.
4. Development of learning resources in the form of biodiversity booklets will be based on environment around SMAN 1 Berastagi.

1.4 Problem Formulation

Based on the problem limitation above, the problem formulation are:

1. How feasible is the booklet developed according to learning material experts?
2. How feasible is the booklet developed according to learning media experts?
3. How feasible is the booklet developed according to learning biology teachers?
4. How feasible is the booklet developed according to learning students responses?
5. How effective is the biodiversity booklet being developed ?

1.5 Research Objectives

Based on the problems that have been formulated, the objectives of this study are:

1. To know the feasibility of the content and presentation of the booklet that has been developed based on material experts
2. To know the design feasibility of the booklet that has been developed based on media experts.

3. To know the feasibility of the booklet that has been developed based on biology teacher.
4. To know the content and presentation feasibility of the booklet that has been developed based on students responses
5. To know the effectiveness of the biodiversity booklet that has been developed.

1.6 Research Benefit

This research is expected to provide the following benefits:

1. For teachers, it can be used as an input in efforts to use the booklet as a learning resource for students and add insight into learning resources that are interesting and useful for learning.
2. For students, the booklet can be used as a source of learning to increase the learning interest and add insight to the biodiversity topic.
3. For schools, the booklet can be used to improve the quality of education in schools and provide an input in the development of learning resources as an improvement in learning biology in schools.
4. For researchers and teacher candidates, the booklet can be used to add skills in developing learning resources that are interesting and easily understood by students.

1.7 Operational Defenition

1. Research development is a process used to develop and validate products that will be used in research.
2. Learning resources are all things that can be used to provide the simplicity and convenience to someone in the learning process.
3. The development of this environment-based booklet uses the development method by following the 4-D model (Define, Design, Develop, and Disseminate) which is expected to make a valid and practical booklet.
4. Environmental learning is learning that emphasizes the environment as a medium or source of learning.

5. Booklet is a small book that serves as a leaflet to convey messages or information.



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