

TERARIUM MEDIA IN THE LEARNING PROCESS

Nooryani¹, Makrina Tindangen², Candra³

Mulawarman University

yanietris06@gmail.com¹

makrin_tindangen@yahoo.co.id²

Abstract

The purpose of the study was to find out the problems faced by teachers when developing terrarium media. This study uses a quantitative approach with percentage data analysis method and analyzed descriptively. The results show that the problems faced by teachers when developing terrarium media to improve the entrepreneurial skills of high school students are still very many and it is necessary to carry out an innovation that can accelerate educational innovation at the high school level in Samarinda City. this is corroborated by the results of observations that have been made in several high schools in the city of Samarinda, analyzed and then presented, so that 70% of teachers have not been able to develop terrarium media that are relevant to the material to be delivered, this is due to the lack of teacher knowledge regarding terrarium media which has economic value. It can be concluded that it is necessary to carry out new innovations to improve the entrepreneurial abilities of high school students.

Keywords: Media, Terrarium, Entrepreneurship.

Education is the main factor for the future of the nation today with support from various parties, for example from teachers, faculty and learning tools that support students to be more active. When viewed broadly, the problems that often occur in the world of education today are the skills of teachers in developing support for the learning process, especially in education at the provincial and district levels, the skills of teachers in managing and implementing active learning are still lacking, especially in high school.

Education at the high school level really determines how students get an understanding of learning materials and solve problems related to real-life facts associated with learning materials. The problem that often occurs is the lack of teacher skills to implement learning to solve problems associated with learning materials in schools. So that this causes a lack of understanding of students related to learning materials besides that students' skills in solving problems in real life are very lacking. (Suardani, 2014).

Solving problems in the 4.0 era is not only environmental and natural problems related to material in schools, but it is necessary to introduce students to economic problems that can improve the economy related to materials in schools that support increasing student entrepreneurial abilities. The problem is not many teachers realize the importance of collaborating between the media and entrepreneurs as preparation for the future. In this regard, learning strategies are of great concern to teachers in high schools. To overcome these problems, teachers need to develop learning strategies by collaborating learning models and learning media that support this.

Learning media has many roles in the world of education, including as a learning resource to train students to observe directly so that it will be a student learning experience that will be remembered in the long term. Through these observations, a student will be able to construct or build understanding or knowledge obtained from these observations which will ultimately affect the increase in motivation and learning outcomes. So that the impression of memorizing material and boring learning will slowly

disappear. Media that are relevant to certain learning methods can be used to achieve these goals and learning models are better than other models so that educators need to master and apply various learning models to be able to facilitate students' learning optimally accordingly.

Learning media that supports increasing student entrepreneurs who have selling points are media terrarium media or containers made of glass or transparent plastic containing plants, which are intended for various needs, such as for research, farming methods and decorations. It can be said that the terrarium is the most natural artificial biosphere because the biological functions that occur in the terrarium are similar to those that occur in nature. This media really supports the learning process, especially on ecosystem material where the terrarium media can be made to resemble the shape of a small ecosystem according to the learning material. Besides that, the terrarium media has a high selling value which can be used as decoration in the home or office. (Lestari, 2014).

Based on preliminary observations that have been made in several high schools in the city of Samarinda, it shows that so far there have been no teachers who have developed terrarium media as learning media in the classroom, this is due to the lack of creativity of teachers in making these media and economic constraints. So far, teachers only teach using natural media that are often used so far so that students' entrepreneurial abilities do not appear. This is very unfortunate because high school students should have the opportunity to have simple entrepreneurial knowledge as a provision for the future. Regarding the problem of using the learning model during the learning process, the teacher did not pay attention to it so that teaching was based on the hours prepared without a teaching guide. The problems above show that it is important to innovate to improve the ability of student entrepreneurs so that the terrarium media needs to be developed so that the selling value in the market is more feasible. Based on the above background, the problem of this research is "What are the problems faced by teachers when developing terrarium media to improve the entrepreneurial skills of high school students?"

METHOD

This research is only limited to a needs *assessment* that comes from the results of initial observations in the field. Data collection techniques in this study used a needs analysis instrument for students and teachers. To find out the reality in the field related to the learning process that has been carried out so far, the researchers conducted observations in 6 schools in Samarinda with a sample of 3 biology teachers from each school selected to explore the potential and problems that might arise in the learning process. Respondents from all biology teachers and students were selected to provide information about the learning process in schools. The research instrument is a questionnaire. Data from questionnaires filled out by respondents will be analyzed descriptively qualitatively. (Melani, 2012). Analysis of the data using the percentage % in accordance with the questionnaires that have been distributed to the respondents as for the assessment indicators as follows:

Table 1. Needs Analysis Indicators

No	Rating Indicator	Percentage
1	Knowledge related to Shared . model	
2	Knowledge related to the development of Shared Model Learning tools with Terrarium media	
3	Knowledge of Terrarium related Concepts	
4	Knowledge related Materials related to terrarium	
5	Knowledge related Steps to make Terrarium	

DISCUSSION

Based on the results of the needs analysis conducted by researchers at six public schools in Samarinda, namely State High School 5 Samarinda, State High School 2 Samarinda, State High School 15 Samarinda, State High School 1 Samarinda, State High School 3 Samarinda and State High School 16 Samarinda, data obtained that the development of learning tools on ecosystem materials is very supportive for implementing terrarium media to improve the entrepreneurial skills of high school students, the results of observations supported by questionnaires show that there are no teachers who have developed terrarium media. This is in stark contrast to Arisa's statement, 2002 that every teacher in the education unit is obliged to develop interactive learning tools, inspirational, fun, motivates students to participate actively. The same thing was expressed by Riyana, 2012 that the function of learning media is to clarify messages so that they are not too verbalistic, overcome the limitations of space, time, energy and senses, generate enthusiasm for learning, lead to more direct interaction between students and learning resources and allow children to learn independently according to their needs. with flair and visual auditory and kinesthetic abilities, Woodford in Karwadi (2008), explains the word integration (*integration*) means mixing, combining and blend. Integration is usually done on two or more things, and each can complement each other. Hartono (2011) adds that this integration will connect one problem to another, so that *unity of knowledge* is built.

This is also in line with the thoughts put forward by Poerwadarminta in Trianto (2015), namely integration is unification so that it becomes a whole or becomes whole. However, the results showed that the knowledge of biology teachers related to the shared model, the development of Shared Model Learning tools with Terrarium media, related concepts related to Terrariums, related to Materials related to terrariums, related to the steps to make Terrariums were in the less category so it was very necessary to develop and learn related to the development of terrarium media so that it has an impact on the quality of learning outcomes in class, Widoyoko, 2000 explains that the quality of a learning product cannot be separated from the quality of the learning process itself. Evaluation of learning programs that are prepared and implemented by teachers should reach an assessment of: 1). Learning design, which includes developed competencies, selected learning strategies, and program content, 2). Implementation of learning programs or learning quality, and 3). Results of the learning program. While the findings of the research are 94% of teachers do not understand how to develop a shared model of learning tools with terrarium media, especially adapting materials relevant to the development of terrarium media.

Facts in the field, student activities related to the growth of entrepreneurial attitudes are less than optimal. Students only summarize material from books, students only see the ecosystem in the book rather than making terrarium media that have a high selling value. Solomon, 2008, explains that Ecosystem is a combination of each biosystems unit that involves reciprocal interactions between organisms and the physical environment so that the flow of energy leads to a certain biotic structure and a material cycle occurs between people, so the thoughts of these experts can be synthesized if the teacher creativity and innovation in the preparation of learning, continuity of learning and evaluating learning, the quality of student learning tends to change in a positive direction, this is in line with Paramita, 20016, which states that innovation is used as the basis, resources, driving force, tactical goals, tips and tricks. process in facing life's challenges because students have many abilities but are not trained to find and develop these abilities. Based on the initial survey at State High School 5 Samarinda. Teachers still have difficulty implementing the curriculum in the preparation of Learning Implementation Plans (RPP), media, teaching materials, LKPD and assessments that must adjust to indicators and conceptualize learning objectives and teachers sometimes use inappropriate learning methods. Generally, the learning tools owned by teachers are still simple and have not been developed. The obstacle faced is that time constraints make it difficult for teachers to do so ((BNSP), 2014).

Based on the results of observations, in terms of the learning process, teachers tend to only provide material concepts, and less emphasis on appropriate media during the learning process, as a result students are less able to relate the concepts of the subject matter they have with the entrepreneurial abilities of each student. Students often act in an attitude that is not in accordance with scientific procedures. The data shows that only a few percent of students can work on ecosystem materials. Mushrooms are all around us, students should be more interested in learning. In Biology learning, a variety of terrarium media should be used, so that learning will be more fun, so that students are more motivated to become entrepreneurs. Changes in learning are needed, so that teachers are always active and creative in creating a learning atmosphere. The use of monotonous methods causes students to pay less attention to lessons. Biology teaching and learning activities not only provide a number of materials about biology lessons to students but also apply them in everyday life (Sudjana, 2010) .

Based on the results of the pre-research conducted by researchers at four high school schools in Samarinda, namely State High School 5 Samarinda, State High School 2 Samarinda, State High School 15 Samarinda and State High School 16 Samarinda, information was obtained that the learning process carried out by teachers had not fully implemented the lecture learning model on ecosystem material, from the questionnaire. which are distributed only about 70% of teachers have not used media that are relevant to the material and have not used media that are able to improve students' entrepreneurial abilities (Hardoko, 2014).

In addition, the results of pre-study conducted by researchers at several schools high schools in Samarinda obtained information that the learning process is carried out by teachers is rarely implement fully make learning media on the matter of the ecosystem in the learning process is only about 15%, In this case the cause of teachers rarely make media in the teaching and learning process because it takes a longer time. Even though teachers can take advantage of ineffective time or outside school hours, because it is very important for researchers, especially in biology lessons, to use media so that learning is not conveyed verbally, which will only cause curiosity and make learning less attractive to students. Especially on the ecosystem material for class X State High School.

Based on the description in the background above, this research needs to be carried out as an initial study in the development of terrarium media devices to improve students' entrepreneurial abilities. The results of this research needs analysis are attached in the following table:

Table. 2 Results of needs analysis

No	Rating Indicator	Not enough	Good
1	Knowledge related to Shared . model	66%	46%
2	Knowledge related to the development of Shared Model Learning tools with Terrarium media	83%	17%
3	Knowledge of Terrarium related Concepts	88%	12%
4	Knowledge related Materials related to terrarium	77%	23%
5	Knowledge related Steps to make Terrarium	94%	6%

The development of the *shared* media terrarium model of learning tools to improve student *entrepreneurship* goes smoothly from the process of development, revision, validation, revision, small and large scale trials, empirical tests to effectiveness tests. Learning tools are developed to improve students' entrepreneurship skills which are expected to lead students to grow their entrepreneurial spirit.

The results of the implementation of learning tools show that the data analysis uses an average empirical test class and the effectiveness is worth 76 and 77, it shows that being in the high category, the

high category results from the implementation of the development of shared learning tools with terrarium media with the aim of improving students' entrepreneurial abilities. If successful, entrepreneurial skills are needed to more optimally guide students to cultivate an entrepreneurial spirit as a provision in living social life. The results of research that have been published support the statement that the importance of entrepreneurship skills is because it has become one of the competencies of educational goals, even as one of the goals to be achieved. This is motivated by studies showing that entrepreneurship is an entrepreneurial skill and has been known to play a role in moral development, social development, mental development, cognitive development, and scientific development (Hashemi et al, 2010).

There is an assumption that it is important for us not only to learn entrepreneurship, but also to teach entrepreneurship to others. This assumption is very important because for someone to be successful in any field, he must have the skills for entrepreneurship, he must be able to reason inductively and deductively, such as when he criticizes and consumes ideas or suggestions. These entrepreneurial skills are commonly known as an important educational goal, and are considered a desired outcome of all human activities (Samsudin, 2009).

The findings during the learning process were that there were students who were not focused because they were using technology, and some students' discussions were not active, so improvements were needed on learning devices adapted online.

CONCLUSION

Based on the results of initial observations related to what problems are faced by teachers when developing terrarium media to improve entrepreneurial abilities are: problems related to 94% of teachers have not been able to develop terrarium media that are relevant to the material to be delivered, this is caused by a lack of teacher knowledge related to terrarium media that have economic value.

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