CHAPTER I

INTRODUCTION

A. Background

One of the major problems faced by science teacher today is not necessarily "what to teach" but how to teach and the teachers' inability to teach science in a meaningful way. It is identified as one of the factors responsible for students' poor performance in both of public and internal examinations. The interest learners show the mastery they demonstrate in their field of study at the completion of the program depends largely on how they were taught (Ojogan and Oganwu, 2006). In other words, the learners interest and level of mastery depends on how teacher deliver the lesson in the classroom. Hence, to analyze how teach in science class, the relationship between teacher and student should be seen as a line where teacher is a subject in the problem whereas student is object to be improved.

The researcher has done the observation before conducting the research in the classroom. The researcher observes the class in biology subject that is circulatory system. In the learning process, the researcher found that the student lack interest in a subject. It can be seen from the observation there is no task to make a project in order to improve their skill and ability. Thus, the students are seen just sit and listen teacher explanation. Besides that, the researcher has done interview with the students in that classroom about learning process especially in biology subject. The questions that are asked to the students relates about how is teaching and learning process in classroom. Almost the student's answer wants to make the project and deliver concept of material using learning media was interest.

Based on the observation, the researcher designs the lesson plan for teacher for applies the method in order to produce a product. Therefore the method is used the project based learning in order to support the class activity.

The class activity during learning process should be interactive for improve students' creativity and understanding.

A diorama is often used as a learning tool to help students' understand the subject matter. In reality, diorama is much more useful to present the information or phenomenon. Based on the definition from science dictionary, dioramas is a three dimensional model of a mini-world, landscape, scene in a box, carry case, or window. Therefore, students must learn how to imagine specific and detail an object and hone their creative skills.

Bitgood (1996) stated that dioramas in their original form presented animal species within a realistic context of their natural habitat including three dimensional objects (trees, rocks, etc.) and a background painting on the rear wall of the display. Today, the term "dioramas" is often used in a more general way to refer to an exhibit containing three-dimensional object(s) displayed within a realistic background context. It may or may not include a landscape painting as a back drop.

Diorama is 3-Dimension shape to describe a phenomenon in current time and setting. Moreover diorama has current size and objects inside of it. Hence, it needs the imagination and the creativity to make a diorama as project. Creativity expert Robert Epstein from study "Developing students' creative skills for 21st century success" by Jennifer Henderson (2008) in a visiting scholar at the University of California, San Diego, has identified four competencies essential for creative expression are capturing, challenging, broadening, and surrounding as follow as:

 a. Capturing : Preserving new ideas.

 b. Challenging : Giving ourselves tough problems to solve.

 c. Broadening : Boosting creativity by learning interesting new things.

 d. Surrounding : Associating with interesting and diverse things and people.

Science teacher has important role for make the students express their creativity. Student's project is the way to make students can explore their idea and imagination creatively. A student's project is nothing less than a creative product. Besemer and O'Quin (1993) believe that the creative product is unique in that it combines both the creative person and process into a tangible object representing the "true" measure of a person's creative ability.

Based on the finding state that product creativity by Kurt Y. Michael (2000) it is study about criteria for evaluating the creative product. Most research on creativity has focused on the creative person and process, not the creative product. This lack of interest in the product has resulted in little progress toward defining attributes of the creative product. To date the most extensive review of literature establishing criteria for evaluating the creative product was conducted by Besemer and Treffinger (1981).

Student's understanding is an important element of instructional outcome through learning process. It can be represented as student's cognitive skill. According to Newman and Flaherty (2012) when check all students' levels of understanding throughout each lesson, it sets the tone that everyone's thinking is important and necessary, and it can forward the learning and engagement of all. In all lesson, teacher use guided practice to enhance their understanding. Bloom's taxonomy provides a way to organize thinking skills into six levels, from the most basic to the more complex levels of thinking, they are remembering, understanding, applying, analyzing, creating, and evaluating. Understanding is the one of six levels that can be measured use Bloom's taxonomy.

Based on the finding before that has been done by Audrey C. Rule (2010) it is found that the construction of these dioramas was an excellent example of how an enrichment activity can motivate one set of students who may lack interest in a subject, while at the same time inspiring

others who thrive on the challenge of digging deeply into a subject. It is conclude that dioramas are excellent tools that promote students' use of higher order thinking skills to investigate and present information.

Dioramas might be used in every topic of science. The appropriate material in the middle school student is ecosystem because the concepts contain about the relationship between environment that needs student's investigation and observation. Student's understanding very relates with the concept, it is needs a real model to explain ecosystem component, ecosystem unit, and relationship between ecosystem component clearly. That's why the diorama is used as learning media to make students more understood in learning ecosystem. Since the ecosystem consists of large concept and many theories inside of it, the diorama enables to be applied in order to enhance student's understanding,

According to the statement before, the researcher want to know the effectiveness of dioramas and the relationship between students' creativity and understanding through dioramas implementation which is used by teacher in learning process. Therefore, it is necessary a learning model that can help learning process refer to *Kurikulum 2013* in learning ecosystem at 7th grade of Junior High School. In this study, the researcher expect that dioramas can effective on student's creativity and understanding especially in learning ecosystem. This study investigated the effectiveness of dioramas on student's creativity and understanding in learning ecosystem.

Based on the background of problems as well as those already described, the researcher has conduct research which is entitled "The Effectiveness of Dioramas on Students' Creativity and Understanding in Learning Ecosystem". This research is analyse two variables that are students' creativity and students' understanding. Developing from those variables, as the complement for this research, researcher also investigates students' impression towards diorama implementation.

B. Research Problems

Based on the background that mentioned above, the main research problem is, "How is the Effectiveness of Dioramas Towards Students' Creativity and Understanding in Learning Ecosystem?".

Elaborating the research problem above, the research attemp to explorre the following question:

a. How is the effect of dioramas on students' creativity in learning ecosystem?

b. How is the effect of dioramas on students' understanding in learning ecosystem?

c. How is the students' impression of dioramas on students' creativity and understanding in learning ecosystem?

C. Research Objectives

This research has objectives, such as:

a. To investigate the students' creativity by using dioramas as a model of teaching learning process in learning ecosystem.

b. To investigate the students' understanding by using dioramas as a model of teaching learning process in learning ecosystem.

c. To investigate the students' impression of dioramas on students' creativity and understanding in learning ecosystem.

D. Research Benefits

The results of this study are expected to provide the following benefits:

a. Teachers

This research should exteriorize the learning process in the classroom with fun activity, so that through diorama implementation will be understand better the concept and contain inside of it.

b. Students

This research should increase students' creativity in creating dioramas and enhance their understanding in learning ecosystem.

c. Other Researchers

This research should inspire other researchers to continue the research in other approaches. It will produce the research is useful to student in improvement their skill and ability to create science to be easy to understand and more fun to learn.

E. Organization Structure of Research Paper

The structure of research paper consists of five chapter:

1. Chapter I. Introduction, this chapter contains background, research problems, research objectives, research benefits, and organization structure of research paper.

2. Chapter II. Dioramas, Students' Creativity, and Students' Understanding, this chapter contains literature review about dioramas, students' creativity, students' understanding, ecosystem, and relevant research.

3. Chapter III. Research Methodology, this chapter contains about the method that used in this research begin from research method and research design, assumption, hypothesis, research procedures, instructional tools, research instrument, instrument analysis research, and data processing.

4. Chapter IV. Results and Discussion, this chapter contains students' creativity in creating dioramas, students' understandng in learning ecosystem, correlation of students' creativity and understanding, and profile of students' respond on implementation of dioramas.

5. Chapter V. Conclusion and Recommendation, this chapter contains about conclusion based on research problems and research objectives moreover given recommendation for the next research.