

CHAPTER I

INTRODUCTION

A. Background

Science education is one of essential major that is studied by students in school. Thus, the research about science learning in school becomes requisite in order to improve the development of science education. There is common situation in instructional process that the teacher stands in front of the class, lecturing and illustrating with the help of the black board and chalk. It generally happened in all major that be learned by students, included science. Those Traditional methods of teaching and learning cannot ensure the participation of every student. Students might be not interested to learn in the class.

This problem might be solved by using teaching or learning aids aids. From previous research, it was proven that the teaching aids can improve the reading, writing and speaking skills of the students (Singh, 2011). In this research, the development of teaching aids as learning media is investigated in form of poster. But, this poster is kind of an innovation of the teaching and learning media regarding the design of the poster itself. This poster is called as flap poster. Flap poster is one type of the modification of common poster so that flap poster can resemble the common poster. Posters are known as an excellent medium for developing communication skills particularly where short and concise communication is needed (Zevenbergen, 1999).

The implementation of flap poster project enables students to get the opportunity to express their reactions and ideas through poster presentation. Poster presentation would appear to have potential as a learning strategy and as a method of assessment (Bracher, 1998). EL-Sakran and Prescott (2013) also stated that Poster presentations cater for different learning styles and allow for personality preferences, students' creativity in poster design.

As teachers, it is important that students are allowed to express their creativity. The term creativity varies in several ways. According to Barron and Harrington (1981), there are two categories of definition of a criterion of creativity actually used in large bodies of research: 1) creativity as socially

recognized achievement in which there are novel products to which one can point as evidence, such as inventions, theories, buildings, published writings, paintings and sculptures and films; laws; institutions; medical and surgical treatments, and so on; 2) creativity as an ability manifested by performance in critical trials, such as tests, contests, etc, in which one individual can be compared with another on a precisely defined scale. From the above categories of creativity, flap poster project can be included in both of those categories which might affect on students' creativity. Flap poster as students' project is called as novel product because flap poster is real form of creativity product that can be assessed to measure the creativity. Besides that, flap poster also is included into critical trial. Regarding the process of creating flap poster and flap poster presentation, it shows students' involvement and performance. That is why flap poster project enable students to improve their creativity.

Student's understanding is an important element of an instructional outcome. Student's understanding also can be represented as students' cognitive skill. Kinkin and Hench (2012) stated that the poster presentation allows students the opportunity to develop and improve their cognitive skills as they progress through Bloom's Scale of Taxonomy. In Bloom's taxonomy, the structure of cognitive skills build from simple to complex includes the categories of knowledge, comprehension, application, analysis, synthesis, and evaluation. They also stated that through poster project, students develop the skills required to move up that hierarchy. Thus, the urgent of understanding improvement is requisitely in line with the implementation of flap poster as the instructional strategy of empowering learners to pursue content knowledge on their own and demonstrate their new understandings through a variety of presentation modes.

The flap poster might be used in every topic of science. One of the topics is human respiratory system which is very important to be learnt by middle school students. Human respiratory system is included in complex system of human body. According to Liu, Marathe, and Hmleo-Silver (2005) stated that complex systems are difficult for learners to understand. They also

stated that several features of complex systems make them hard to learn about, such as nonlinear and relational causality as well as invisible and dynamic mechanisms. That's why the flap poster is used as teaching aids to make the students easier in learning human respiratory system. Since the respiratory organs consist of the bigger to the smaller and structured from the outside to the inside part, the flap poster is enable to applied to enhance student's understanding.

Considering the explanations above, the researcher aimed to a research related to students' creativity and understanding. This research is focused on the implementation of flap poster project on human respiratory concept based on Curriculum 2013 and Cambridge Curriculum. This research analyzed two variables that are students' creativity and students' understanding. Developing from those variables, as the complement of this research, researcher also investigated students' impression toward implementation of flap poster project.

B. Research Problem

The research problem of this study is "How is The Effect of Flap Poster Towards Students' Creativity and Understanding in Learning Human Respiratory System?"

C. Research Question

Elaborating the research problem, the research attempts to explore the following questions:

- a. How is the effect of creating flap poster towards students' creativity in learning human respiratory system?
- b. How is the effect of creating flap poster towards students' understanding in learning human respiratory system?
- c. How is students' impression after learn the concept of human respiratory system by designing flap poster?

D. Limitation of Problem

In order to make the research become more focused, the problem is limited as follow:

- a. Flap Poster is a poster which contain delightful scene which is filled with picture flaps to lift to reveal words underneath, while word flaps can be lifted to see pictures.
- b. Student's creativity that is measured in this research involves four P's definitions of creativity, those are person, process, press, and products (Rhodes, 1961) and three creativity dimensions, i.e novelty, resolution, and elaboration and synthesis (Miunandar, 2009).
- c. Students' understanding that is measured in this research involves level cognitive of remembering (C1), understanding (C2), applying (C3), analyzing (C4), evaluating (C5), and creating (C6) based on Bloom Taxonomy which is stated by Krathwohl (2002).
- d. In this research, the concept is human respiratory system that limited by core competence no. 3 and basic competence no. 3.7 that are attached in Curriculum 2013.

E. Research Objective

According to problem that formulated in the research problem, the research is intended to:

- a. To investigate the effect of flap poster towards students' creativity in learning human respiratory system.
- b. To investigate the effect of flap poster towards students' understanding in learning human respiratory system.
- c. To Identify students' impression after learn the concept of human respiratory system by using flap poster.

F. Research Benefit

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

- a. For teachers, this study will enable the teachers to increase their ability in implementing teaching aids, know the effect of flap poster on student's creativity and understanding.
- b. For students, this study enables them to improve the use of flap poster in the instructional process towards their creativity and understanding by creating and presenting it.
- c. For another researcher, the result of this research can be used as a comparative study.