

CHAPTER I

INTRODUCTION

A. Background

Education is a fundamental human right and essential for developing students' experiences. Education is a powerful tool by which economically and socially marginalized adults and children can lift themselves out of poverty and participate fully as citizens. The purpose of National Education stated in MPRS No. XXVI / MPRS / 1966 on religion, education and culture, is to educate the nation and develop Indonesian's students who is faithful and devoted to God almighty and good in characters, having knowledge and skills, physical and spiritual health, steady and independent personality that has a sense of civic responsibility and nationality.

Government expects the students to gain more skill; creativity is a part of skill and it lies at the root of innovation, entrepreneurship, competitiveness, and faster brain processing. Creativity is important to implement in school and needs to be fostered in order to increase successful students. Creativity can defined as thinking, process and product, three of them has different meaning and the way to achieve. In addition, Basemer and treffinger in Filsaime (2008) stated that a product is called creative when the product has (a) novelty, (b) resolution, (c) elaboration and synthesis. In education the product is created by students and if students have wider knowledge and create more products she/he can stimulate further work and ideas. Based on Michael (2000), genuine creativity of product is the combination between the creativity of person and also the process.

According to Hammond (1989), problem solving can be as a solution for enhancing students' creativity product and it is the ability of students to make an innovative product based on their imaginative, condition, and supported by environment. In education, the learning environment can be created in the classroom if the students participate well with the teaching

process. Participation is the first step of the students to gain concept in teaching learning process, so they can make a good product of creativity. Participation based on Peterson (2001) also examined students' documentation of their own participation, citing portfolios of work produced in the course as evidence of students' engagement.

The teacher all tend to recognize class participation and many use it in calculating students' grades, what may or may not be counted as participation varies slightly with individual instructors and researchers. According to Dancer & Kamvounias in Rocca (2010) Participation can be seen as an active engagement process that can be sorted into five categories: preparation, contribution to discussion, group skills, communication skills, and attendance.

According to Zakaria (2014) results of PISA in 2012, Indonesia got rank 64 out of 65 countries that joined in PISA, this result show that thinking ability of the students is low and it is related with several aspect including creativity. Hence, in Indonesia creativity of students still less. Munandar (2009) argues that students' creativity will related with confidence of the students, there are still many of students did not confidence to solve the problem. In addition, unconfident and nervous can be a crucial problem for the students to participate well in the classroom in order to understand the concept and work in a group to make a creative product.

The way of teacher to teach can be a solution to set both situation and condition in the classroom, so it can decrease the probability of unconfidence of the students. One of the way of the teacher to teach is about the strategy in learning that used in the classroom. Recent research shows that the learning cycle model is a widely recognized for teaching inquiry-based science. The learning model used in this research followed (Bybee, 2006) five steps of Engagement, Exploration, Explanation, Elaboration and Evaluation. 5E learning model has been applied in several counties and almost in all instruments of education such as: curriculum, teacher program, lesson plan, university syllabi was implemented in several countries.

Based on first observation that researcher conducted, the students in junior high school are still confuse about respiratory system, they can not differentiate well the organ and also functions of in human respiratory system. Meanwhile, human respiratory system also exist in curriculum both 2013 and KTSP.

Based on the background that have been stated before then researcher would like to do and entitled the research on “The profile of students’ creativity product and students’ participation by using 5E learning model in learning human respiratory system”.

B. Research Problem

According to the background which has already stated above, the research problem is “How is the profile of students’ creativity and students’ participation by using 5E learning model in learning human respiratory system?”

C. Research Question

Based on the research problem above, the research questions that developed and explore in this research as follow:

1. How is 5E learning model implemented as an instruction for teaching the concept of human respiratory system?
2. How is the students’ participation by using 5E learning model in the concept of human respiratory system?
3. How is the students’ creativity by using 5E learning model in the concept of human respiratory system?

D. Limitation of Problem

Based on the research questions above, researcher only limited the research in this certain area:

1. 5E learning model consist of engagement, exploration, explanation, elaboration and evaluation. Limitation is in evaluation, in the syntax evaluation is exist in every step of 5E learning but in this reasearch the evaluation exist only in the step of Exploration and Elaboration.
2. Students' participation consists of 5 indicator preparation, attendance, contribution to discussion, group skill and communication skill. In this research it was concerning for both individual and group participation. Both of them use 3 out of 5 indicator such as: contribution to discussion, group skill and communication skill.
3. Students' creativity that examined in this research only used some subindicator of novelty, resolution and elaboration and synthesis.

E. Research Objective

This research is conducted to attain the objective as follow:

1. To figure out the profile of implementation of 5E learning model in concept of human respiratory system
2. To analyze the profile of students' participation in learning human respiratory system.
3. To analyze the profile of students' creativity in learning human respiratory system.

F. Research Benefit

The research was expected to provide some benefits for teachers, students, schools and researcher as follow:

1. Teacher

This research is beneficial for teacher by:

- a) Giving experience and reference of how 5E learning model as Instructional model works in learning,
- b) Sharing an insight on handling class activity with a fun and enjoyment learning approach.
- c) Enrich teacher's knowledge of instructional model to identify student's creativity and students' participation about human respiratory system and discover a better learning strategy.

2. Student

This research is beneficial for students by:

- a) Giving new experiences of learning for students that differ from the usual,
- b) Preparing students for workplace skills and competencies (such collaboration, team work, thinking logically, problem solving, decision making, and time management), connecting between what students' learnt, and what reality has, and
- c) Providing opportunities for students to construct their own knowledge and be an independent learner.
- d) Allowing students to learn active and elaborate through human respiratory system with phenomenon in daily life
- e) Help the students to construct the concept of human respiratory system

3. School

This research is beneficial for school by:

- a) Planning and preparing a the suitable learning strategy
- b) Giving the result of the school based on the observation, so the school can take the result for better learning in the future.

4. The Other Researchers

This research is beneficial for other researchers by:

- a) Giving ideas as a point of reference and information in running further research in science education.
- b) Giving ideas as comparative material for next research which may examine the same focus of problem.
- c) Giving experience about how to implement 5E learning model for determining students' creativity and students' participation in human respiratory system.

G. Organization Structure of Research Paper

This research paper is arranged based on the following organization structure:

1. Chapter I: Introduction

In the first chapter is the elaboration of background about research that followed by problem identification and research questions. It also consisted of research objective and its benefits for various sides.

2. Chapter II: 5E Learning Model, Students' Creativity Product and Students' Participation

Second chapter covered the literature review about 5E learning model, students' creativity product and students' participation. It elaborates some relevant literatures, theories and previous findings of research. As this chapter is reviewing 5E learning model, students' creativity product and students' participation, the presents of chapter II is important to support data gained from research.

3. Chapter III: Methodology

The third chapter of methodology elaborated the method of research including its design, subject of study, operational definition, way of collecting data and analyzing data, as well as the research plot.

4. Chapter IV: Findings and Discussion

Chapter IV, is about findings and discussion, data gained from research are presented and analyzed on discussion to elaborate the occurring phenomena of natural setting and correlate with theories.

5. Chapter V: Conclusion and Recommendation

For the last chapter, it is elaborated the answer of research questions that stated before. Besides, obstacles during this research are presented as recommendation for further research.