

CHAPTER I

INTRODUCTION

A. Background

People and education are two things that related to each other. Hence education must have contact with humanity. The essence of education is to reach a students' high quality of life. According to that, education must be able to take apart and develop all students' humanity potential until they can survive in the future that has more complex problem than now. Also the education itself must give the students' chance to establish their skills or to create new things within the curriculum. In other words, the purpose of education is to improve students' critical thinking.

Especially in science education, with all of unique and characteristics of it, science help the students to be more creative. This purposed students to get an idea or reason to survive in society (now and in the future). Science is among ways of thinking to understand nature indication, as one method to find nature phenomenon and as base that gain from research. Science education will invite students to be near with nature as their place for life (Aikenhead 2005).

But until now, almost all science education always given only transfer of knowledge from teacher to students with remembering or formulas, only to pass the examination or answer the question, but usually students cannot describe what they have learned with the environment. It is expected that science education gives a skill to students to take a part in efforts to solve problem in their environment. Education in Indonesia is regarded to unable students' critical, the scene only focus on remembering facts, rather than understanding and applying the concepts.

This problem makes science education subject as unattractive subject for most students in Indonesia. To solve this problem, it is important to make a

connection between subjects learnt in class with students' daily life. According to Parnell (2001), Contextual teaching and learning is basically a respond to behaviorism approach which emphasizes on the concept of stimulus response of this mechanical drill. To be able to use the language naturally as in the real world life and in the various situations, critical thinking and meaningful learning are needed. When students can relate the lesson got in their school to daily live, they will be aware of the learning benefit.

Contextual teaching and learning is a concept of teaching and learning emphasizing on the relation between teaching- learning material and the real world (Johnson 2002). The students relate and apply the competence of learning outcome on the everyday life. Furthermore, the teacher uses learning material to teach for the students in order to improve their knowledge and to reach the goal of teaching and learning process.

Even now, many people give the perspective that the science learning process is still running as teacher centre, caused science education has less of meaning and cannot be able to give solution for students when they come to the environment problem. Especially for the "changes of matter" concept that appears many problems. One of them is about the "how is the impact of using kind of properties to the environment?" Usually students only understand if there are dangerous for the environment and prevent to use it. The best solution to prevent that problem is how to reduce the impact of those dangerous properties and make the environment more safety.

In fact the impact of using properties must know kind, contains, molecules and so on. They look like have not a responsibility to the next issues and by this Contextual Teaching they can fully understand also care to environment condition. If this approach occurs and gives the positive effect, students not only remember and understand about the concept with development of it, but they also can find the attitude of science when they come to the society condition or in

playing games with their friends. There will not find a human who makes destruction to the nature even not intentional.

In science learning that kind of innovation must be delivered to the students. When teacher explain about Changes of Matter and how to use them, the innovation that has reached also the technique will give them a critical thinking. Why should be used kind of that technique, students can get their concept by using technology. The curiosity of students to this issue will appear when Contextual Teaching conducted to the learning process. Not only in this part of concept but also the other concept that given to the students.

Actually in this part the teacher will become a guide for the students and full responsible to the concept that given for the future of students also the environment that become the main focus. According to elaboration above, it is necessary to implement the study which is entitled “**Contextual Teaching to Improve Students’ Critical Thinking Skill and knowledge comprehension in Changes of Matter Topic for Junior High School**”

B. Problem of Research

According to the background which is described above, the research problem of this research is: “How is the improvement of Contextual Teaching Learning towards the improvement of students’ critical thinking skill and knowledge comprehension in Changes of Matter topic?”

1. Research Questions

The research problem above is described with the following research questions to make this study focus:

- a. How is the improvement of students’ critical thinking by using contextual teaching learning?
- b. Which critical thinking aspect mostly improved by using contextual teaching learning?

- c. How is the improvement of students' concept comprehension by using contextual teaching learning?
- d. Is there a relationship between students' understanding and students' critical thinking skill?
- e. What is student's respond towards the contextual teaching in changes of matter concept?

2. Research Problem Limitation

The limitations of this research are:

- a. The topic that will be used as medium to achieve the objective of the research that is to improve low critical thinking in Changes of Matter that contain according to substances form and applications in daily life concept.
- b. The students' achievement that is going to be measure to standard minimum of completeness in this research is learning achievement in cognitive.
- c. Students' response toward the improvement contextual teaching towards students' in daily life is focusing on experiencing. The measurement of students' response is done by using questionnaire.

C. Objectives

The main purposes of this paper are:

- a. To find out the improvement of students' critical thinking by using contextual teaching learning.
- b. To find out critical thinking aspect mostly improved by using contextual teaching learning.
- c. To find out the improvement of students' concept comprehension by using contextual teaching learning.
- d. To find out relationship between students' understanding and students' critical thinking skill.

- e. To find out student's respond towards the contextual teaching learning in changes of matter concept.

D. Significance of Research

After this research hopefully that can be used as reference for alternative learning model in particular science concept. The writer hopes this research could proceed with a more narrow case studies and rigorous science to achieve a more easily understood by students.

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