

CHAPTER I

INTRODUCTION

A. Background of the Problem

Local wisdom is a social science or system that is continuously done in a certain region. Local wisdom can improve habit of people life. In this case, it can be culture or custom. A government of a region is able to develop its local wisdom well based on potencies of the region. Local wisdom should be used in a right way, especially in educational system.

Indonesian educational system supports educational development based on the potencies of a region as it is declared in the act of the Republic of Indonesia No. 20 Year 2003 on National Education System:

1. Article 36 section 2 states that the curriculum at all education levels and types is developed according to principles of diversification, adjusted to the units of education, local and learners' potencies.
2. Article 36 section 3 states that the curriculum development is organized in accordance with the level of education within the framework of the national unity of the Republic of Indonesia and takes into account of the following:
 - a. the enhancement of faith and piety;
 - b. the enhancement of noble character;
 - c. the enhancement of learners' potency, intellect, and interests;
 - d. the diversity of the region's potency and environment.

3. Article 38 section 2 manages that the curriculum for basic and secondary education shall be developed in accordance with its relevance by each educational cluster or unit and school/ madrasah committee under the coordination and supervision of the Ministry of National Education or the Ministry of Religious Affairs at the district/city levels for basic education, and at the provincial level for secondary education.

The government of Indonesia focuses on the character building, attitude, life skill, and knowledge of the students. The government has some efforts to make students respect their country for which students are able to solve problems of globalization using their regions' potencies. One of the efforts is by using local wisdom as the path of character building. This is proven by the existence of the Regulation stated by the Minister of Culture and Education No. 81 A (2013) which declares that a local knowledge is a study that improves the comprehension of the students' region potency, aiming to improve attitude, knowledge, and skill. The government's goals are:

1. Students should be able to recognize and go deeper to natural, social, and cultural environment.
2. Students are expected to have ability, skill, and knowledge about their region which is beneficial for the others.
3. Students are expected to have good attitude and habit that are in line with the value/ rules in their regions, and develop the regional cultural value in the national building.

Based on Regulation of Minister of Culture and Education 2013, students should use scientific approach in their learning which is shown by some steps. The steps are: observing, asking, associating, trying and communicating. These steps require the students to be systematic in thinking. The main purpose is making students to be more active and critical.

Serious problems that rise in a society nowadays are the inability to live harmoniously. Harmonization of live in a community can be built and maintained by the use of local wisdom.

People living in modern cities should learn old local wisdom and adapt it to their circumstances. (Na Thalang, 2001: 56).

The problems posed by globalization provoke the people to search for ways to better manage their lives. These ways differ depending on the choices that individuals make. Wise and knowledgeable elders were indispensable for this research, making it possible to choose an appropriate framework for communities to learn to live responsibly and sensibly (Mungmachon, 2012: 177).

One of the challenges faced by teachers in the education systems is solving problems of moral, cultural, and social degradation which happens in the society because of their depression toward local wisdom. This problem was also faced by Chemistry teachers. As educators, Chemistry teachers should make strong efforts to build students' moral and penetrate valuable cultures and local wisdoms into Chemistry learning. Education practices in the last decade showed that only few schools applying approaches of integrating local wisdoms and cultures into education. Therefore, it is necessary to conduct the study of the integration of local wisdom-based scientific approach into chemistry learning. The chemistry learning needs to be contextual, memorable, and beneficial. Thus, this

is an opportunity for the educators and teachers to develop education in local wisdom- based scientific approach. Purworejo is one of a region that has potency to do this.

Furthermore, this research was collaborating local wisdom into scientific approach to bring about effective results of students' achievement. The attitudes investigated in this study were social maturity and learning discipline. This research results may be expected to be one of interesting valuable contextual teaching that provides students opportunities to love local wisdom and culture which improve, in some extent, students nationality and integrity in the globalization era.

B. Identification of The Problem

1. Kurikulum 2013 requires learning approaches in which students should be active and critical in learning activities. The active students are indicated by detail activities in each step of scientific approach.
2. Purworejo is a region that has much potential sources of local wisdom to be integrated on chemistry education. The sources of local wisdom should be explored and practiced in the learning Chemistry at senior high schools as valuable investigation. The latest curriculum suggests the integration of local wisdom into teaching-learning materials. This is because of the depression of integrating local wisdom into educational system.
3. Discipline in learning is very important to build consistency and sustainability in learning. Learning discipline should be the part of moral of students that is

important for learning. In addition, social maturity also takes important rule in the successful chemistry learning.

C. Limitation of the Problem

This research focused on:

1. Integration of local wisdom into the scientific approach was through five steps: observing, asking, trying, associating, and communicating. The government suggested that it was a strong effort to improve students' achievement.
2. The sources that were going to be used in chemistry learning originally from Purworejo namely Seplawan Cave, Jatimalang Beach, Tosan Aji Museum, mangosteen and durian, Etawa, Dawet Ireng, Limestone in Pituruh, coconut water, Suronegaran Market, and the traditional organization.
3. This research focused on the measurement students' of achievement, social maturity, and learning discipline due to the integration of local wisdom into chemistry learning.
4. The practices of integration of local wisdom into chemistry learning were conducted at State Senior High School 1 Purworejo in academic year 2014/2015. There are many topics that are interesting to be learnt by integrating the local wisdom of Purworejo into the scientific approach, but because of time constraints, the integration was conducted into learning of one chemistry topic for semester 2, 1st grade students (the chapter of electrolyte- non electrolyte and oxidation-reduction reaction)

D. Formulation of the Problem

The problems of the research could be formulated as follows:

1. Was there any difference of the students' achievement between students that applied local wisdom based-scientific approach and those who did not apply local wisdom- based scientific approach in chemistry learning at grade ten of State Senior High School 1 Purworejo if the prior knowledge was controlled statistically?
2. Was there any difference of learning discipline between students that applied and those who did not apply local wisdom-based scientific approach in chemistry learning at grade ten of State Senior High School 1 Purworejo?
3. Was there any difference of social maturity between the students that applied and did not apply local wisdom-based scientific approach at chemistry learning at grade ten of State Senior High School 1 Purworejo?

E. The Objective of the Study

The objectives of the study were:

1. To know whether there was any difference of students' achievement between the students that applied local wisdom- based scientific approach and those who did not apply local wisdom-based scientific approach in chemistry learning at grade ten of State Senior High School 1 Purworejo or not if the prior knowledge was controlled statistically.

2. To know whether there was any difference of learning discipline between the students that applied and those who did not apply local wisdom-based scientific approach in chemistry learning at grade ten State Senior High School 1 Purworejo or not.
3. To know whether there was any difference of social maturity between the students that applied and did not apply local wisdom-based scientific approach in chemistry learning at grade ten State Senior High School 1 Purworejo or not.