

CHAPTER I

INTRODUCTION

1.1 Background

The textbook have a role as source of potential learning as what students learn from textbooks and the practicality of that learning is mediated by the school context teacher, peers, instruction, and assignments. (Mahmood, 2011) Indonesia, textbooks required to be used in primary and secondary education units or colleges that contains the subject matter (Ministerial Regulation No. 11 of 2005). Textbook is one important variable in successful learning. Textbooks play an important role in the learning process, curriculum and instruction, especially in developing countries (Chiapetta ,2007)

Usability textbooks described by Satromiharjo (2012) that textbook is a book that is designed for use in class carefully structured and prepared by experts and equipped with the tools appropriate and equitable in teaching. The textbook is a learning tool that is commonly used in schools and university to support a teaching program. It relates to statement Wardani (2012) said that a textbook compiled by experts in their field, used at certain levels and is equipped with a means of learning. In many parts of the world, the textbook is the only resource for the teacher and to make matters worse, textbooks become the curriculum and determine to a great extent what is taught and learned in the classroom (Khalick et al. 2008).

Related to PISA (*Programme for International Student Assessment*) an international program to evaluate the ability of reading, science and math of students that scientific literacy skills of students Indonesia is still below standard. results of PISA 2009, Indonesia was ranked 61 of 65 participating countries with an average score of 391, while international average 500 (OECD, 2010). The results of PISA 2012, Indonesia was ranked 64 of 65 participating countries with an average score of 375, while the international average score 500 (OECD, 2013). Related to scientific literacy, besides the syllabus, curriculum and teachers, textbooks play an important role in the development of scientific literacy of

students. Textbooks are the most frequently used learning support material and the availability of high quality textbooks is one of the critical factors in the successful implementation of educational reform. Learning from textbook add another dimension to the completeness of the learning process, these dimensions are texts and information process. Science textbooks need to show science in various parts that support students in mastering the learning material (Swanapoel, 2010). The existence of textbooks is very important because it the textbook is one of the basic tools in science education.

Chiappetta & Filman (2007) stated that in general science textbooks combines discussion about the nature of science, to engage students in activities to collect information and conduct laboratory investigations, outlining the relationship between science, technology and society. That science text book will be able to encourage the students to improve thinking ability and is not just understand terminology. Science text book should aid in development of learned societies in technology and science (Deani, 2013). It is not only contains about knowledge or science concepts but also develop science process and the link science to technology and society.

Leads to the biology, the main thing that until now found on biology textbooks which the contents of the book that has been through several curriculum tend to be equal or less unchanged. Redjeki (1997) in Purnomo (2003) said that textbooks Indonesian students who consumed at least 50 years of the latest developments of modern science, some common weaknesses are translations of foreign books and incompatible with the conditions of Indonesian society, the language used does not fit with the level of education, too many materials. On the other hand Kamil (2010) Textbooks used in class need careful reviewing by teachers. If, for example, there are too many new words on a page, these need to be clarified so meaningful reading occurs. Adequate time then needs to be given each new word so that pupils understand what is read.

Indonesia based on National Education Ministerial Decree No. 2 of 2008 chapter 4 section 1: "Textbooks in primary and secondary education levels assessed the feasibility-useful beforehand by the National Education Standards

Agency (BSNP) before being used by teachers or students as a learning resource in the educational unit”. Aspects to be considered is suitability materials, presentation materials, use of language and readability the quality of training and the questions presented, and accessibility of textbooks.

In other country like Malaysia, they also did an evaluation of textbooks which is called “ Vetting of Textbooks”, which is the minister of education said that textbooks must be accordance with the curriculum and has two important aspects in the text book are graphic and design.

According to PP No. 19 of 2005, which is a good text book has four components, namely worthiness component content, language, presentation, graphic, and explanation. A good textbooks are books:

1. Minimal refers to the standards and basic competencies.
2. Contains information, messages, and the knowledge contained in the form written which be communicated to the reader especially teachers and students, logically, easily accepted.
3. The concepts presented in an interesting, interactive and stimulate the process of critical thinking, creativity, innovation, Breadth of thinking and self evaluation.
4. Attractive display, easy to read and use and physical quality of the book.

The selection of topic is based on random sampling, which is all the topics in the book samples drawn by researcher then the topics selected when the draw occur the respiratory system got by researcher and use to be discussed. Furthermore system of the body is a very important matter and is closely related to daily activities of living things include human. Respiratory system is the subject matter that has been introduced at elementary schools continues even in junior high school and discussed more in senior high school. In senior high school body systems obligated subject that will always exist. Based on research Tekayya (2002) that students have difficulty learning, especially in the discussion of body systems such as the concept of the nervous system, respiratory, excretion and digestion are considered the most difficult after genetics. Supported by (Cimer, 2011) Many concepts or topics in biology, including water transport in plants,

protein synthesis, respiratory and photosynthesis, gaseous exchange, energy, cells, mitosis and meiosis, organs, physiological processes, hormonal regulation, oxygen transport, genetics, Mendelian genetics, genetic engineering, and the central nervous system can be perceived as difficult to learn by secondary school students.

Based on some reasons or background above this research important to held to know about biology textbook in senior high school with title “The Completeness, Breadth and Depth : A Comparison Between Indonesia and Cambridge High School Biology Textbook for Respiratory System Topic” and is expected to enhance the knowledge of students, especially in the matter respiratory system.

1.2 Problem Identification

Based on the background description above, researcher identified the problem as follows :

- 1) There are difference in feasibility content between Indonesia and Cambridge Science textbook.
- 2) Textbook in Indonesia contain same concept although the curriculum have changed.
- 3) Research about book comparison in Indonesia with other countries is limited.
- 4) Respiratory system is one of topic in biology that difficult to learn for secondary school.

1.3 Problem Scope

Scope of problem for directing the research namely :

- 1) Textbooks that compared namely biology textbooks from Indonesia and Cambridge publisher.
- 2) The comparison area completeness, breadth and depth and in each book using Badan Standar Nasional Pendidikan (BSNP) assessment to evaluate the books.

- 3) The topic discussed in this research is Respiratory System.

1.4 Problem Formulation

The problem formulation namely :

- 1) Which is book that has the most complete in respiratory system ?
- 2) Which is book that discuss respiratory system breadth ?
- 3) Which is book that discuss respiratory system depth ?

1.5 Research Objectives

Some objectives of this research are :

- 1) Conducting a study about the breadth of matter in Senior High School Biology textbooks with topic Respiratory System.
- 2) Conducting a study about the depth of matter in Senior High School Biology textbooks with topic Respiratory System.
- 3) Conducting a study about the completeness of matter in Senior High School Biology textbooks with topic Respiratory System.
- 4) Finding the country which has most understanding textbook in respiratory system.

1.6 Significances of Research

This observation expected benefit for :

- 1) Teachers
 - a. Helping for choosing the right biology textbook for using in learning appropriate levels of student.
 - b. Matching the breadth, width and completeness of textbooks with curriculum that exist.
- 2) Publisher
 - a. Helping editing of textbooks to match the demands of the curriculum and the level of students' knowledge.
 - b. Describing about comparison depth, breadth and completeness of text books correspond with the development of curriculum.

3) UNIMED

This thesis can using as additional research literature about book comparison in width, breadth and completeness.

4) Other Researcher

Addition as reference and comparative material in relevant field in the future.

1.7 Operational Definition

There are some several point that using for evaluation on samples :

1. The Completeness of materials means materials presented includes all matter contained in the Competency Standards and the Basic Competency.
2. The Depth aspect that is The material presented introduction of the concepts, definitions, procedures, views, examples, cases, exercises, accordance with syllabus and competence and accordance with education level learners.
3. The Breadth aspect that is reflects description that support achievement of Basic Competence.