

## CHAPTER I INTRODUCTION

### 1.1 Background

Textbook is one of the most important elements in the teaching learning process, because textbook can present a variety of material that will be taught. In addition, textbooks also support the teaching learning process to be going regularly and effectively. Without textbooks, teaching learning process will not be going smoothly and effectively. Brown stated that “ The presence of a textbook is necessary to support teaching learning process ” (Brown, 1994). It means that the presence of textbooks can facilitate students to follow the learning process. Many researchers have claimed that textbooks are the most frequently used instructional materials for students and teachers at all grade levels (Florida University Department of Education [FLDOE], 2008). Especially in science, what is taught and how it is delivered is under the influence of textbooks.

Textbooks play an important role in effective biology education and they are fundamental sources of information to basic biological concepts, scientific research process and experimental activities (NRC; Haury, 2000). The studies that were conducted abroad indicate that 90% of the teachers actively use textbooks as their main instructional tool and to assign homework (Blystone, 1989). It means teacher have to select textbooks in learning process. Textbooks as instructional material guide teachers in topic selection and provide ways to teach those topics. Textbooks serve to provide the learner with the opportunity to consolidate his/her understanding independently of the teacher.

If a textbook is the main source of information and order of content at biology lessons, then it should meet the needs of teachers and students. Teachers find it logical to follow the textbooks to make sure that the students learn all the content areas (Kuechle, 1995). However, it was found that students have difficulties to relate the concepts covered in the textbooks with their lives or students' background knowledge is not in line with the new concepts so these textbooks do not encourage students to do research (Leonard & Chandler, 2003).

There are three international studies are credible as instrument to test global competency, they are PIRLS (*Progress in International Reading literacy study*), PISA (*Programme for International Student Assesment*) and TIMSS (*Trends in International Mathematics and Science Study*). These studies measure student literacy grade of reading, math and science in all the earth. Organization Programme for International Student Assessment (PISA) assesses the ability of reading, math, and science field. PISA survey organization does not only measure the student ability in solving problems or operating technique. The survey assesses the students' skills in problem solving, which includes identifying and analyzing problems, formulating reasons and communicating their ideas to others. The results of the PISA survey report in 2006, Indonesia was at 52nd rank of 57 participating countries in science. In the last PISA test 2012, Indonesia ranked 64 of 65 participant's countries, whereas in the last TIMSS test 2011, Indonesia ranked 36 of 40 (TIMSS, 2011). The result of the PIRLS report that the student of Indonesia can understand only 30 % of the material because they felt difficulties to answer the text questions that need understanding and analyzing. International studies report the student of Indonesia are still lower ranking than Singapore (TIMSS, 2007). The availability of textbook will give the impact students learning outcomes.

Related to the issue of school textbooks, the government through the National Education Standards Agency (BSNP) control book by assessment. The purpose of textbooks assessment is providing textbooks that are suitable to be used to improve the quality national education, improve the quality resource of Indonesia textbook, protect learners from books that are not qualified, and increasing interest of reading. The Governments' Regulation (No.19/2005 chapter 43 chapter (5) : “ Quality of textbooks must fulfill four elements of feasibility, namely the feasibility of the content, the presentation of the feasibility, feasibility of language, and the feasibility of graphic, they are valued by BSNP. Standart feasibility content of textboook according to BSNP the material must support Competency Standard and Basic Competency of the lesson. The content

feasibility of textbook can be valued of the completing, width and depth materials.

The completeness, breadth and depth of materials are most important necessary in a textbook, because it indicates how is greater the understanding of student to learn the material. based on the result of Tekkaya. et all. (2001) In Turkey, the student felt difficulties in learning process about Body System, for example the Circulatory system. So that's why, understanding of Circulatory System conception have to pay attention to the width, depth and up to date of the materials so that students are able to know more about materials and easy to understand.

Based on the background, the writer wants to know the quality of indonesia textbook in three books in different publisher with textbook that published in Cambridge by the identification of completeness, breadth and depth use each countries curriculum. There are three textbooks of Indonesia as the comparison to know which one of the textbook is better to use and compare it to the Biology Textbook Cambridge's publisher. Does the quality of textbook that public in Cambridge country is better than indonesia textbook based on each curriculum? Therefore, the writer choose to do the research by lifting the title research "The Completeness, Breadth and Depth : A Comparison between Indonesian and Cambridge High School Biology Textbooks for Circulatory System".

## **1.2 Problem Identification**

Based on the background research, the comparison research of Biology Textbook of Indonesia with Biology Textbook Cambridge Publication by using each curriculum are still rare. Therefore, the writer wants to do research to compare completeness, breadth, and depth of Biology Textbooks Senior High School In Indonesia with Biology Textbook Cambridge Publication On Topic Circulatory System".

### 1.3 Research Scope

The limitation of this research are:

1. Comparing the Biology textbook of Indonesia with Cambridge Biology Textbook's publisher.
2. This research use syllabus of each textbook's publishers as a standard to analyze the completeness, breadth, and depth biology textbook senior high school in Indonesia and Cambridge Biology Textbook's publisher.
3. There are three textbooks of Indonesia, namely Erlangga, Esis and BSE textbooks' publishers and one biology textbook that published by Cambridge.
4. The concept that will be discussed is Circulatory System.

### 1.4 Research Question

Based on the background of this research, the problems formulation are:

1. Which textbook discuss about Circulatory System is more complete?
2. Which textbook discuss about Circulatory System is broader?
3. Which textbook discuss about Circulatory System is deeper?

### 1.5 The Objectives of Research

The objectives of this research are:

1. To know which textbook discuss about Circulatory System is more complete.
2. To know which textbook discuss about Circulatory System is broader.
3. To know which textbook discuss about Circulatory System is deeper.

### 1.6 The Significance of Research

The significance of this research are:

1. For Teachers:
  - a. The teacher gets the information about the width, depth and recency biology textbook senior high school in Indonesia.

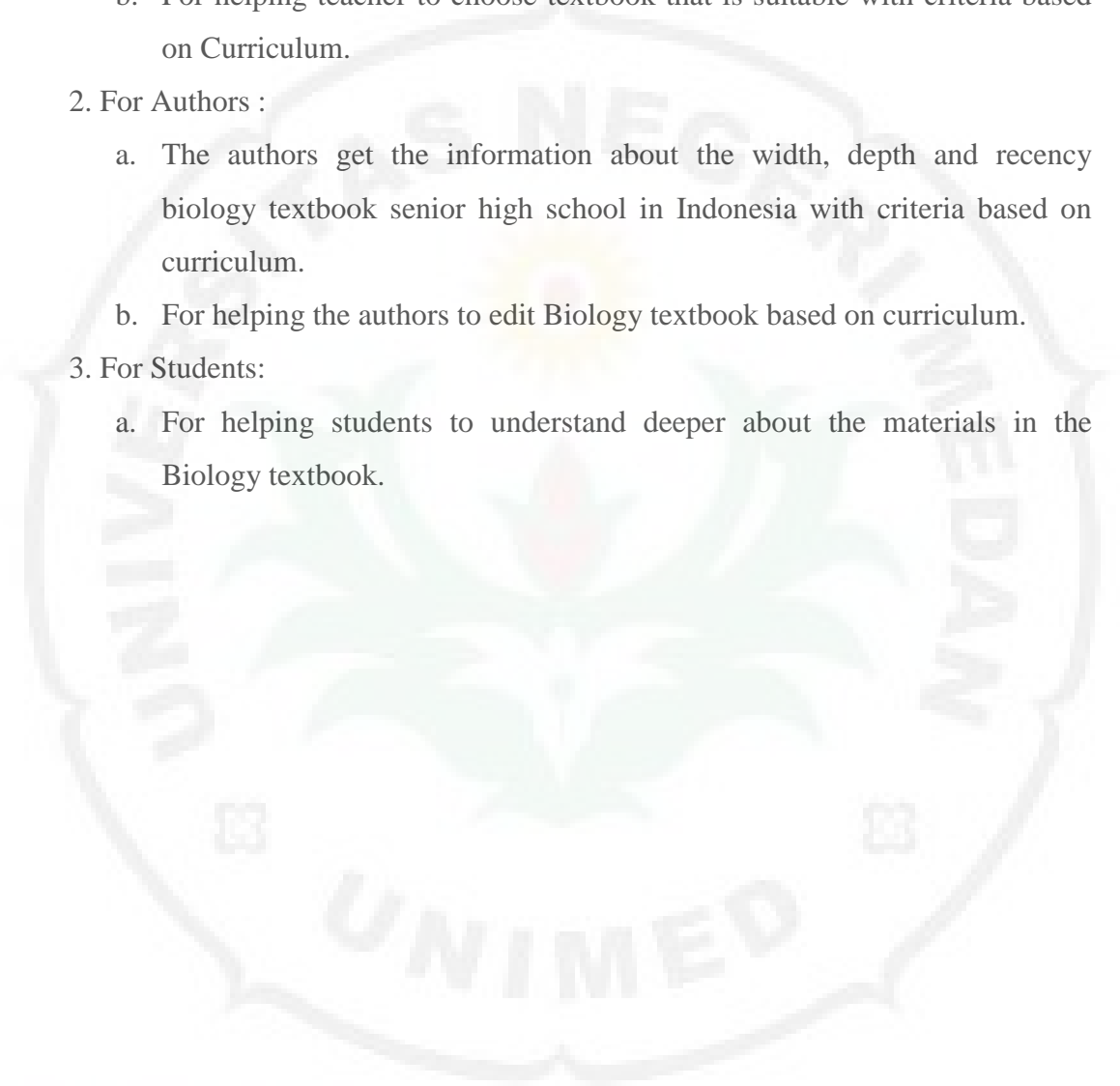
- b. For helping teacher to choose textbook that is suitable with criteria based on Curriculum.

2. For Authors :

- a. The authors get the information about the width, depth and recency biology textbook senior high school in Indonesia with criteria based on curriculum.
- b. For helping the authors to edit Biology textbook based on curriculum.

3. For Students:

- a. For helping students to understand deeper about the materials in the Biology textbook.



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