

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### A. Conclusions

Based on result and analysis data of implementation Cambridge International General Certificate of Secondary Education (IGCSE) curriculum in plant transport system topic in international school, it can be concluded that:

1. Cambridge IGCSE Biology syllabus provides what students need to develop and prepare for the next stage of their education. They are encouraged students to provide authentic experiences that simulate the world of work and stimulate students' imaginations which will help them develop their scientific skills and attitudes and their awareness of the nature of science and its relationship to technology. In Cambridge IGCSE Biology syllabus, plant transport system topic divided into 3 mains subtopic are transport in plant, water uptake, and transpiration process. In those 3 subtopics there are several objectives that should be reaching by students. In implementing Cambridge Syllabus, they give free opportunity to the teacher to develop their own lesson plan that refers to the Cambridge syllabus.
2. In implementing Cambridge curriculum, teacher use course book from Cambridge that written by Mary Jones and Geoff Jones in Cambridge IGCSE biology course book, second edition that powered by university of Cambridge international examination. Plant transport system topic is written in chapter 9. Plant transport system divided into 3 subchapter are transport in plant, structure and function of root, and transpiration process. The role of textbook in instructional process are teacher used text book as a guide for delivering plant transport system topic and it makes teacher easier to deliver the concept. Sometimes teacher make the activity worksheet based on the textbook.
3. In instructional process by using Cambridge syllabus, teacher divided plant transport system topic into 5 meetings as follows:

- a. Teacher divided plant transport system into 5 meetings. In first meeting, students learn about definition and function of xylem and phloem. Second and third meeting, students do the experiment in dissecting the root to see the structure of xylem and phloem. Fourth meeting students learn about function, types and structure of root, the process of water move through the root and how transpiration process occurs. And in the fifth meeting they learn about factors that affect transpiration rate then they do the experiment in dissecting the stem as enrichment.
- b. Teacher used deductive approach in delivering the concept, in every meeting teacher conducts lessons by introducing and explaining concepts to students, and then expecting students to complete tasks to practice the concepts.
- c. Teacher used different method in every meeting. In several meetings teacher combine multiple method to deliver the concept. In the first and fourth meeting teacher combined lecturing with discussion method to deliver the concept. In second and third meeting teacher used experiment method. In the fifth meeting teacher used discussion method by choose one student become presenter in discussing the factors that affect transpiration rate
- d. Teacher used PowerPoint as media to deliver the concept. While in the second and third meeting, students used microscope to observe the structure of the root. And in the fifth meeting, teacher showed video about cohesion phenomenon through the projector
- e. Teacher assess students understanding of the plant transport system topic by giving them worksheet when doing the activity, quiz in the end of the lesson, and providing them the unit test at the end of the topic.

## **B. Recommendations**

Based on the conclusion above, the suggestion are as follows:

1. Research need to be conducted further for observing the implementation of the Cambridge International General Certificate of Secondary Education (IGCSE) curriculum in another Biology material, so that the knowledge gained become far more comprehensive and help in preparing Indonesian students in developing their scientific skills and attitudes and their awareness of the nature of science and its relationship to technology
2. Another recommendation is further research need to be done to find out the effectiveness of implementing Cambridge International General Certificate of Secondary Education (IGCSE) curriculum in the improvement of students' achievement or even students' scientific skills and attitudes and their awareness of the nature of science.