

## **CHAPTER V**

### **CONCLUSION, IMPLICATION, AND RECOMMENDATION**

#### **5.1 Conclusion**

Based on the research question and the result of the NOS analysis on the junior high school science textbook of curriculum 2013 and curriculum Merdeka, several conclusions can be drawn in this study:

- 1) Analysis of NOS aspects in grade 7 and grade 8 science textbooks for junior high school in curriculum 2013 and curriculum Merdeka shows that the materials delivered in the science textbook of curriculum Merdeka were mostly addressed explicitly informed that taking up 41.18% of materials that addressed NOS aspects. However, there were still materials that delivered explicitly naïve representations, filling 11.76% of materials, while the science textbook of curriculum 2013 didn't convey a single NOS representation in that way. The science textbook of curriculum 2013 also mostly delivered the materials explicitly informed but in a smaller percentage than the science textbook of curriculum Merdeka, which fills 30.43% of materials that addressed NOS aspects. Regarding the topic, the science textbook of curriculum Merdeka mostly shows lower scores than the science textbook of curriculum 2013. The topics that show higher scores in how the science textbook of curriculum Merdeka addressed NOS aspects than the science textbook of curriculum 2013 were only found in two out of twelve topics that had been analyzed. Moreover, compared to the science textbook of curriculum 2013, which conveyed all (ten) NOS aspects, the science textbook of curriculum Merdeka only delivered nine out of ten NOS aspects. The aspect that didn't deliver in the science textbook of curriculum Merdeka is the social and cultural embeddedness that makes the teacher may be unable to deliver that aspect to the students.
- 2) Analysis of NOS aspects in grade 7 and grade 8 science textbooks for junior high school shows that the science textbook of curriculum 2013 conveyed ten of NOS aspects. The greatest percentage of NOS aspect is empirical (38.3%) which followed by inferential aspect (23.4%). The rest are creative (2.13%),

theory-driven (2.13%), tentative (8.51%), myth of “The Scientific Method” (4.26%), nature of theories (4.26%), nature of laws (6.38%), social aspect of scientific enterprise (6.38%), and social and cultural embeddedness (4.26%). Meanwhile, the science textbook of curriculum Merdeka conveyed nine of NOS aspects. The biggest percentage of NOS aspect included in this science textbook is inferential (32.26%), which followed by empirical aspect (19.35%). The rest are creative (6.45%), theory-driven (3.23%), tentative (9.68%), myth of “The Scientific Method” (3.23%), nature of theories (3.23%), nature of laws (16.13%), and social aspect of scientific enterprise (6.45%). Both of science textbook of curriculum 2013 and curriculum Merdeka addressed mostly empirical and inferential aspects because the topics analyzed were focused on more concrete than abstract ideas.

## 5.2 Implication

The findings about the NOS analysis on the science textbook for junior high school student in the science textbook of curriculum 2013 and curriculum Merdeka shows some unsatisfactory results. Even though the science textbook of curriculum Merdeka have delivered most of the message of NOS aspects in explicit and informed ways, the government and the author of the science textbook should improve in how the NOS aspects addressed in the science textbook for junior high school student. There are still some messages of NOS delivered implicitly and in naïve representation. Besides, the science textbook of curriculum Merdeka just covered nine out of ten aspects of NOS compared to the science textbook of curriculum 2013 which covered all NOS aspects.

The author of science textbook for junior high school are expected to deliver the NOS aspects explicitly, informed and covered all NOS aspects in the science textbook in the future. The understanding of NOS is important for the students to make them understand the process of science and its application, not just stick to the products of science. Since some of NOS message still delivered implicitly, the teacher is expected to deliver the NOS aspects to the learners by engaging it with the scientific activity and teacher’s creativity.

### 5.3 Recommendation

Based on the result of this study, few of recommendations for another researchers and book author and teacher who can get involved in improving NOS understanding that can be stated as follows:

1) Future research

The study related to the nature of science is important to do by the researcher because the NOS understanding will increase the students' scientific literacy skills. For another researchers, the study about NOS analysis on the science textbook can be done periodically in order to make sure that the science textbook used by the teachers and students always improving according to the development of curriculum.

2) Book author

For book author, the representation of NOS aspects in explicit and informed should be added more to the science textbook because the understanding of NOS is so important to the students. It will make the students become scientifically literate and understand how to apply their knowledge in daily life.

3) Teacher

The teacher is expected to deliver the NOS aspects to the learners by engaging it with the scientific activity and the teacher's creativity because the science textbook of curriculum Merdeka didn't deliver all NOS messages in explicit and informed ways.