

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

1. Analysis from teaching learning chemistry process in each schools got the curriculum 2013 as teaching learning guide, various student textbooks and teaching methods, so the researcher develop the indicators, lattice questions, questions work instruction, Three-Tier Instrument Test with Certainty of Response Index (CRI), answer key, scoring guideline, questionnaire on the causes of students' misconceptions on the research. The data is from interview to teachers in each schools.
2. The test instrument has very decent criteria with presentations on the assessment of material aspects and language are 100% and construction aspect is 91.66% and there are 15 (fifteen) qualified questions with good grades as the result of eligibility categories of the objective test instrument to detect misconceptions by Three-Tier Instrument Test with Certainty of Response Index (CRI) on redox reaction material which is reviewed from expert validators i.e. questions with numbers 10, 11, 13, 15, 16, 17, 18, 19, 21, 22, 23, 24, 26, 28, 30. The questions contain 5 (five) sub-concepts in redox reaction.
3. Analysis result shows that percentages of students' misconception of redox reaction based on change in oxidation number (54.36%), students' misconception of the oxidation number of the element in a compound or ion (65.18%), students' misconception of the oxidation number of the element in a polyatomic ions (60.56%), students' misconception of oxidizing and reducing agent in reaction (54.09%), and students' misconception of autoredox concept (69.98%) with ratio of misconceptions percentage is enough. It means that Three-Tier Instrument Test with Certainty of Response Index (CRI) on Redox Reaction material objective test instrument is qualify to know the students' misconception in different schools in North Sumatera.

4. Analysis result shows that the causes of students' misconceptions in learning redox reaction with the highest percentage of causes found in the material aspect with presentation 48.08%, then the cause of the misconception on the aspect of learning source with presentation 39.19%, and the causes of misconceptions in the aspect of teachers with presentation 12.91%. It because students were taught by different teacher, different method, and different source in learning redox reaction.

5.2. Suggestion

This study shows high misconceptions occurred in senior high school students in redox reaction material. Based on the results of this research, the researcher suggests as follow:

1. In order to make teachers pay more attention to understanding students' misconception in classroom activities, especially in the teaching of basic concepts, teachers should adopt certain methods and strategies to prevent students' misconception. Identifying students' misconception before the teaching and learning process in the classroom will help teachers prevent these misconception.
2. For next researcher who will do the same research topic, make teaching and learning process first before compiling instrument Three Tier Instrument Test with Certainty of Response Index to reduce students' misconception and compiling more varied questions instrument in the students' cognitive level.