CHAPTER V
CONCLUSION, IMPLICATION AND RECOMMENDATION

5.1. Conclusion

According to the research which conducted in secondary school, it can be conclude that ethnoscience approach could enhance the students’ scientific literacy in learning food additives. By applying ethnoscience approach in the class, students were improved their scientific literacy especially in competence domain. Even though, many of consideration have to be prepared before choose ethnoscience as a learning approach. Further conclusion in order to answer the research questions would present in below:

1) In implementing ethnoscience approach, the preparation stage should be prioritized. The use of local culture in learning is a good idea to make students more enthusiastic. But, it has to consider the learning objective of the topic. Because, some students might be confused and don’t get what the scientific knowledge behind the local culture. Therefore, the good preparation of the learning would impact on the leaning outcomes.

2) Students’ scientific literacy results shown the differences between each student in the class. The data of pre and posttest is distributed normally, so for the analysis, it uses Paired T-Test Sample. However, the results of paired t-test sample is 0.000 which means the hypothesis null is rejected. It indicates that there are significant differences between before and after students’ scientific literacy by implementing the ethnoscience approach. The improvement of scientific literacy is in medium category based on N-Gain score which is 0.54.

3) The improvement on competence domain is in medium category (N-Gain = 0.60, 0.52, and 0.50) based on the class of achievement. For competence domain in scientific literacy, students tend to explaining phenomena scientifically that can be shown from the pre and posttest score. Meanwhile, students have to practice a lot to develop the
evaluating and designing scientific inquiry aspects. Even so, all aspects are showing the improvement.

4) Attitude toward science on students is in low category since the N-Gain score is 0.10. The result shown most of students already have a good attitude for solving the daily problems. Because, only a few students who changed their opinion after the learning. In addition, the changes made by students lead to the good perspective in answering the questions. Therefore, after learning process, students are improved their attitudes by changing the answer and strengthen the answer.

5.2. Implication

Based on the results of this study, the implications can be stated as follows:

1) Students are influenced by the learning approach utilized in the classroom, particularly in scientific literacy. This study found an increase in student scientific literacy scores after implementing the ethnoscience approach. In other words, the ethnoscience approach can be used to encourage students to be involved while also requiring them to comprehend science principle in basic terms.

2) In both the competency and attitude domains of students’ scientific literacy, the average is still in the medium category. Therefore, teacher’s role in communicating learning objectives must also be considered. Because the teacher’s success in preparing students for learning has an impact on the student’s learning outcome. Also, the use of instrument should be revised to improve the quality of the objective test.

5.3. Recommendation

After conducting the research, there are several recommendations that could be applied in the further research about students’ scientific literacy in ethnoscience approach learning. The recommendations were described as follows:

1) This research is only used 34 participants as a sample due to the availability students in private school. It would become a better result
if there are more samples. Because, the large sample could provide the more information to analyze the improvement of student’s skills. In addition, the use of public school might have different result causes of the language in school. For further research, it has to get more samples and also it highly recommended to differentiate the result in public and private school.

2) This research is focused on the improvement in students’ scientific literacy. In addition, the competence and attitude domain become the main discussion. So, the researcher is suggested to discuss on all of domain in the students’ scientific literacy. The analysis on Competence, Knowledge, Context, and Attitude were taking a better explanation of students’ result in scientific literacy.

3) The use of local culture has to be prepared and explained more in the further research. Because, the time allocation in online learning is limited so the topic of food additives is just basic based on the school annual plan. The analysis of some chemical substance in food to know the role of food additives could be the other ideas to explore the traditional food and food additives.