CHAPTER V
CONCLUSION, IMPLICATION, AND RECOMMENDATION

5.1 Conclusion

The phases of each meetings in teaching and learning process consist of five phases, there are orientation, questioning, exploration and data interpretation, discussion, and conclusion. The phases in teaching and learning process is in accordance with inquiry-based learning phases. In the implementation of inquiry-based learning, the students actively participate mainly in discussion phase. The Instagram is supporting the inquiry-based learning in the conclusion phase, where the students able to access the complete material they learn in each meeting.

From the result of pretest and posttest scientific literacy objective test, the students' scientific literacy average n-gain is 0.127 which described as low improvement. The scientific literacy then analyzed based on the aspects, there are competency aspect and knowledge aspect. Based on competency aspect, the students achieve higher in explain phenomena scientifically with the n-gain is 0.264 which described as low improvement and the lowest achievement is interpret data and evidence scientifically with the n-gain is -0.086 which indicate no improvement at all. Based on knowledge aspect, the students achieve higher in epistemic knowledge sub aspect with the n-gain is 0.4 which described as moderate improvement and achieve lower in procedural knowledge with the n-gain is 0.074 which described as low improvement. Besides on the aspects, students' scientific literacy also analyzed based on the sub topic. The light and optic topic consist of several sub topics, there are properties of light, mirror, and lens sub topic. Based from the result of the student average score and n-gain pretest and posttest, the students achieve higher in properties of light sub topic with the n-gain is 0.31 which described as moderate improvement. However, the students achieve lower in lens sub topic with the n-gain is -0.07 which described as no improvement at all.

From the result of the students' motivation profile, the students' motivation questionnaire score after given the treatment is 75.71% which described as good motivation. This mean the students have good motivation after the implementation of inquiry-based learning supported by Instagram in teaching and learning process. The highest students' motivation toward science learning domain is science learning value which described as very good motivation. However, the lowest students' motivation toward science learning domain is self-efficacy and performance goal domain with both of domain described as good motivation.

5.2 Implications

From the result and discussion of the implementation Inquiry-based learning supported by Instagram that already conducted, the implications shows that the students' scientific literacy shows improvement because in the implementation of teaching and learning process, the students are engage with the teaching and learning activity. The students also participate actively during discussion phase. The students able to explain the phenomenon in inquiry activities in teaching and learning process. In the implementation of inquiry-based learning supported by Instagram in teaching and learning process, the students fully engaged and participate actively in properties of light sub topic. The students already have prior knowledge in properties of light and optic sub topic so they are confidence in sharing their ideas in inquiry phase activities.

In the term of students' motivation in learning science, described as good motivation. In the implementation of inquiry-based learning supported by Instagram,, the students still not confidence enough in sharing their ideas, especially in mirror and lens sub topic. The students also did not compete in other students in order to gain achievement in teaching and learning process. However, the students have good motivation in achieving the score in learning science.

5.3 Recommendation

There are several recommendations for future research regarding the implementation of inquiry-based learning supported by Instagram in light and optic topic. The recommendations stated as follows.

1) In this study, the sample only consist of 17 students. Due to the current situation, there is difficulties in gather the sample also collecting data. In future research, the more samples can be added to gain the precise result regarding the students' scientific literacy as well as the students' motivation.
2) In the data collecting, some students might not follows the sequence of collecting the data. Due to the situations, there is also difficulty in asking the students to answering the instruments. To make the data collecting effective, the researcher able to explain to the students carefully, so the students follows the instruction especially for the sample that is limited.
3) In future research, the researcher is suggested to prepare more questions of objective test in each aspect, so there is representative in each aspect. Besides, the researcher able to use the spare questions if the questions in validation process is rejected.
4) The researcher is suggested to prepare backup sample if the sample does not match the criteria which already determined. Besides, the backup sample can be used if the sample did not follow the procedure that already given.
5) In future research, the researcher able to maximize the Instagram feature such as posting video through time line as well as through Instagram story. With the Instagram features that are used maximally, the communication between students and the instructor able to be improved as well as the students' engagement in learning.