CHAPTER V
CLOSING

5.1 Conclusion

Based on the results of the research and discussion on the development of Student Worksheet based on PjBL using Liveworksheet on Temperature and Heat material in class VII which has been stated previously, the following conclusions can be drawn:

a. Student Worksheet based on PjBL using Liveworksheet which was developed using the ADDIE method on Temperature and Heat material was declared valid after being validated by material experts and obtained an average percentage of 84%, with the strongly feasible category.
b. Student Worksheet based on PjBL using Liveworksheet which was developed using the ADDIE method on Temperature and Heat material was declared valid after being validated by language and learning experts and obtained an average percentage of 97.33% with the strongly feasible category.
c. Student Worksheet based on PjBL using Liveworksheet which was developed using the ADDIE method on Temperature and Heat material was declared valid after being validated by design experts and obtained an average percentage of 82.66% in the strongly feasible category.
d. The Student Worksheet based on PjBL using Liveworksheet which was developed is suitable for use in learning by students, this can be seen from the results obtained from student responses of 83.33% with the strongly feasible category.
e. The Student Worksheet based on PjBL using Liveworksheet which was developed is suitable for use in learning by educators, this can be seen from the results obtained from the educator response of 92% with the strongly feasible category.

f. Student Worksheet based on PjBL using Liveworksheet which was developed effectively to improve student learning outcomes in Temperature and Heat material. The percentage results obtained with an average pretest score of 36 and posttest 83 and N-Gain of 0.72.

5.2 Suggestion

Based on the research results presented previously, the following are recommended:

a. The student worksheets developed have the advantages of being easy to access, saving paper, accessing free software, being able to produce visual, audio and audiovisual written images, so they can be adapted to various desired material choices. teaching, making it easier for teachers to create various materials and questions, design worksheets and various other answer choices, making it easier for teachers to correct student answers. Apart from that, the LKS developed can improve learning outcomes in the Temperature and Heat material. So, for further research, researchers can use PjBL-based Student Worksheets using Liveworksheets in schools with various material choices according to needs.
b. This research was only conducted as a limited group trial with a sample of 32 students in class VII-5. Therefore, if this research is followed up at a later date, it would be best if the product trial could be developed again on a larger scale, implemented in several schools and within an optimal time period in order to get optimal results again.
c. In further research, it is recommended that there is a need to develop learning, especially in the Science and Technology component, which is adapted to school and student conditions to get more optimal results.
d. Because we cannot correct essay answers, for further research we have to create more alternative variations of questions.