CHAPTER V
CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the analysis in the previous chapter, mostly the implementation of design-based learning had run according to the existing theory. Where learning activities were begun with the use of problem-based learning as the appearance of a problem, and then proceed with the case based reasoning to find a solution towards the existing problems, and eventually all students can make an alarm as the part of the project based learning. The implementation of design based learning (DBL) model is divided into six stages; there are Purpose, Input, Solutions, Choice, Operation, and Evaluation. In the implementation phase, The Operation Stage requires more time to construct the electrical alarm system.

Using portfolio assessment in this study, it can be proved that alternative assessment can be used to measure secondary students' creative thinking skill in the concept of electricity. All teams occupied Level 3 in the level of creative thinking skill. Both teams gain achievement in thinking strategy level. In this level student are intentionally use of a number of thinking tools, organization of thinking as a sequence of steps, and reinforcing the sense of the purpose in thinking.

Furthermore, the results of both teams on aspects of creative thinking skill are varied. Creative thinking skill aspects involved fluency, flexibility, originality, and elaboration. One team cannot be said better than another, due to each team has its own strengthens and weaknesses.

In addition to using a portfolio, the writer also uses the pencil test to measure students' cognitive domain in the concept of electricity. Based on the results, students did the improvement of students' cognitive domain in medium category through design-based learning.

Constraints that arise in the implementation of portfolio assessment, such as tasks given too much, no obvious additional resources, the orientation of a student in learning process just only to obtain the scores, students cannot operate well in the use of electricity tools, and the limited time spent on task. While the strengthens of portfolio assessment are new form of assessment rather than just a pencil test, increase student motivation, bring pride to the students, training students to conduct self-assessment, as well as broaden students' knowledge.

B. Recommendation

Based on the analysis and obstacles that arise in the implementation of design-based learning models and the use of portfolios in the learning assessment that has been done, the following are some recommendations are proposed to overcome obstacles that arise in using portfolios assessment to reveal the students' creative thinking skill:

1. For Students

    a. Students are expected to pay more attention to the teacher's instruction in every stage of learning.

    b. Students are expected to play an active role in the negotiations to the assessment criteria of learning activities in advance that could be more clearly understood.

    c. Students are expected to responsible for the tasks assigned by the teacher.

    d. Students are expected to do a better communication within members or others in delivering an opinion or share the ideas.

    e. Students are expected to search new information from other resources

    f. Students are expected to reveal the learning as a process, not only a product so that learning becomes meaningful.

2. For Teacher

    a. Enroll and follow some training or workshops related to the implementation of design-based learning model, due to this model of learning is rarely implemented, moreover in science class.

    b. Emphasize to students that each stage was correlated to the next stage.

    c. Optimize the preparation phase of the implementation of portfolio assessment, ranging from determining the purpose of learning, socialization of assessment, determination of task, and determination of assessment criteria.

    d. Make obvious assessment criteria to be easily understood both by teachers and by students.

    e. Provide briefly explanation in the implementation of self-assessment to the students so that students' reflection can be met properly.

    f. More pay attention in managing classroom particularly for the time allocation.

    g. Choosing the proper type of task to be assessed with portfolio assessment.

3. For other researchers

    a. Lack of implementation of design-based learning models, opening a lot of possibilities for further investigation.

    b. For similar research is recommended to examine the emergence of creative thinking skills criteria based on different theories.