CHAPTER V
CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

Based on the results of the study, data analysis and hypothesis testing, then some conclusions can be drawn as follows:

1. There is difference in physics learning outcomes of students using problem based learning model with direct instructional model. Physics learning outcomes of students who were taught using problem based learning model (81.09) is higher than students who were taught using direct instructional model (76.41).
2. There is difference in physics learning outcomes of students who have high hard work character with students who have low hard work character. Physics learning outcomes of students who have high hard work character (80.65) is higher than students who have high hard work character (76.97).
3. There is interaction between hard work character and problem based learning model toward physics learning outcomes. This gives the meaning that the interaction between learning models and hard work of students affects physics learning outcomes of student. Scheffe test results showed that the group of students who have high hard work taught with problem based learning model obtained learning outcomes (85.88) is higher than other groups of students either group of students who have low hard work taught with direct instructional model (78.06), group of students who have low hard work taught problem based learning model (75.67), or group of students who have high hard work taught with direct instructional model (74.29). While the results of Scheffe test between groups of students who have high hard work and low hard work are taught with direct instructional model indicate that the group of students who have high hard work obtain learning outcomes (74.29) lower than the group of students who have low hard work (78.06) although both are taught with direct instructional model.

5.2. Suggestion

Based on the research results and conclusions above, then as a follow up this research suggested some of the following :

1. Science teachers are expected to be more creative and innovative in selecting and determining learning model that will be used in presenting the material, especially material physics, so it can involve students actively, critically and creatively in learning, and suggested to the teacher to be able to use the problem based learning models in teaches physics concepts that students are more actively involved in the learning process and trained to be able to solve various problems faced by the students as well as removing the mind set of students that physics is a difficult subject, tedious and requires high intelligence so that most of the students are less interested and less motivated to learn physics.
2. In order for the application of learning models that teachers do work effectively and efficiently teacher should identify first the characteristics, needs and hard work attitudes of the students. Researchers suggest if the majority of students in the class have high hard work attitude the teachers should use the problem based learning models, and vice versa if the majority of students in the class have low hard work attitude the teachers should use direct instructional models. Application of models steps also need to be prepared well by teachers so it can actively involve students directly in the learning process, making learning more fun and meaningful which finally students can obtain a better and optimal learning outcomes.
3. To the further researcher, as this study only lift learning models influence and hard work to physics learning outcomes of students, the researchers hope that further research on the same topic or issue. This is important in order to obtain the comprehensive research results to be useful as a counterweight to the theory as well as the reform of education, especially in the use of appropriate models learning in the classroom and in accordance with the needs and characteristics of students including hard work attitude of students.