

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

The research that has been carried out at SMA Negeri 1 Merbau results in conclusions drawn from data analysis and hypothesis testing as follows:

1. Motivation and Problem Solving Ability of Learners are higher by using the TPACK-based differentiated collaborative learning model on the subject matter of waves. The average problem solving ability of students in the experimental class was 70.57.
2. The motivation and problem solving ability of students using conventional learning models on the subject matter of waves only obtained an average value of 62.48 which was much lower than the experimental class.
3. There is an effect of TPACK-based differentiated collaborative learning model and conventional learning on students' motivation and problem solving skills on the subject matter of light waves. Where the value of $F_{hit} (AB) > F_{tabel}$ is $1.554 > 3.13$ with a sig value. < 0.05 , namely $0.274 < 0.05$.

5.2 Suggestion

Based on the research results and conclusions obtained, the authors propose the following suggestions:

1. For teachers or prospective teachers, it is recommended to use the TPACK-based differentiated collaborative learning model by utilizing the latest and interactive learning technology as an alternative learning method that aims to improve students' problem solving skills.
2. Researchers who want to examine further related to the collaborative learning model based on TPACK.
3. More in-depth learning styles and selection of appropriate content so that students can be more interactive.