CHAPTER V
CONCLUSION AND RECOMMENDATION

A. Conclusion

The findings from the meta-analysis research that has been carried out provide the following conclusions

1. The summary effect results for all articles were calculated using the random effect model formula because the results of the heterogeneity test showed that the 60 effect sizes of each article analyzed were heterogeneous (Q = 1164.592; p < 0.001). The summary effect result is 1,304 which are included in the large category so it can be concluded that the cooperative learning model on student learning outcomes in English learning as a whole has a big influence on improving the learning outcomes of experimental class students as a whole. 60 articles were meta-analyzed.

The results of the publication bias test show that the results of the meta-analysis do not indicate publication bias. This is based on several methods used such as funnel plot results which look symmetrical and are proven by the results of the Egger test p-value being greater than α (0.05). Furthermore, the fail-safe N method shows that the fail-safe N value is greater than the value 5K+10 where K=60, which means the conclusion of this meta-analysis is not influenced by publication bias.

2. Overall, it can be concluded that the meta-analysis of cooperative learning in English language learning is not suitable to be applied to senior high students. However, it is very suitable for application at elementary, junior high school and college levels. This can be concluded from the effect size results, all three are in the large category. Which means cooperative learning really has a big effect on student learning outcomes in English language learning

3. While the magnitude of the effect is based on region, cooperative learning is significantly effective in improving student learning outcomes in English language learning. Both Asia and Africa have the same size category (large). However, it can be seen that Africa has greater value.

B. Recommendations

Following the researcher's finishing of the meta-analysis process, the author proposes some suggestions for future improvement:

1. Researchers are advised to provide more detailed research data when publishing their findings to facilitate further research by other researchers.
2. Further meta-analysis research needs to be carried out regarding the use of models cooperative learning on student learning outcomes in English teaching at the moderator variable analysis stage to find out the variables which influences the difference in effect size.
3. Research on online cooperative learning models is needed to improve students' outcomes in English teaching, given the minimum research that has been done on this.