

## **ABSTRACT**

DINA HANIFA, 2024. **“THE EFFECT OF PROJECT BASED LEARNING MODEL ON LEARNING OUTCOMES AND STUDENTS COLLABORATION SKILLS IN BIOTECHNOLOGY MATERIALS (Experimental Study in Class X SMA Negeri 9 Tasikmalaya Academic Year 2023/2024)”**. Thesis, Departement of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.

*The purpose of this study was to determine the effect of project based learning model on the learning outcomes and collaboration skills of class X students at SMA 9 Tasikmalaya on Biotechnology material. This research was conducted April-May 2024. The research method used was a quasi-experiment with a matched-only posttest-only control group design. The population in this study was class X students at SMA 9 Tasikmalaya for the academic year 2023/2024, with a total of 319 students, consisting of 9 classes. Samples were taken using purposive sampling technique with class X-3 was obtained as the control class and class X-6 as the experimental class. The learning process in the control class uses a discovery learning model, while in the experimental class uses a project based learning model. The data collection technique is a learning outcomes test with 30 multiple choice question and non-tests using the Collaboration Self-Assessment Tool (CSAT) questionnaire with 11 statement items. The data analysis technique used is the One Way Anova Test. Based on the result of analysis, it can be concluded that there is an influence of the project based learning model on the learning outcomes and collaboration skills of students in biotechnology material in class X SMA Negeri 9 Tasikmalaya for the 2023/2024 academic year.*

**Keyword:** *Project Based Learning, Learning Outcome, Collaboration Skill.*