

ABSTRACT

MIRA NURLAILATUNISA. 2025. “THE EFFECT OF BIOENTREPRENEURSHIP-BASED PJBL MODEL ON COLLABORATIVE PROBLEM SOLVING SKILLS AND SELF REGULATED LEARNING OF STUDENTS ON BIOTECHNOLOGY MATERIALS (Experimental Study in Class X SMAN 7 Tasikmalaya, 2024/2025 Academic Year)”. Thesis, Department of Biology Education. Faculty of Teacher Training and Education. Siliwangi University.

This study aims to determine the effect of the bioentrepreneurship-based PjBL model on collaborative problem-solving skills (CPS) and self-regulated learning (SRL) among students in biotechnology courses. This study was conducted from September 2024 to May 2025. The method used in this study was a quasi experiment. The population in this study was all 10th grade classes at SMAN 7 Kota Tasikmalaya, consisting of 12 classes with a total of 432 students. The sample was selected using purposive sampling, with class XE-9 as the experimental class and class XE-12 as the control class. The determination of the experimental class and control class was done by drawing lots. This study used two instruments, namely the CPS questionnaire consisting of 18 items and the SRL questionnaire consisting of 30 items, each using a 1–4 Likert scale assessment. The data analysis technique used an independent sample t-test. Based on the results of the hypothesis testing, it was found that there was an effect of the bioentrepreneurship-based PjBL model on collaborative problem-solving skills with a significance value of 0.043 ($p < 0.05$) and on self-regulated learning with a significance value of 0.029 ($p < 0.05$), meaning that H_0 is rejected. This indicates that there is an effect of the PjBL model based on bioentrepreneurship on collaborative problem-solving skills and self-regulated learning of students in biotechnology material in Grade X at SMAN 7 Tasikmalaya, Academic Year 2024/2025).

Keywords: Project Based Learning, Bioentrepreneurship, Collaborative Problem Solving, Self Regulated Learning.