

## **ABSTRACT**

**ZAYYANA LATIFATU ZAHRO 2025. *THE EFFECT OF MEDIA-ASSISTED PROJECT-BASED LEARNING (PBL) ASSISTED BY TERRARIUM MEDIA ON CRITICAL THINKING SKILLS AND LEARNING OUTCOMES OF STUDENTS ON ECOSYSTEM MATERIAL (AN EXPERIMENTAL STUDY IN CLASS X MAN 3 TASIKMALAYA REGENCY ACADEMIC YEAR 2024/2025).***

***Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University.***

---

The low level of critical thinking skills and student learning outcomes in ecosystem material indicates the need for more effective and contextual learning model innovations. The purpose of this study was to determine the effect of the terrarium-assisted project-based learning (PjBL) model on critical thinking skills and student learning outcomes in ecosystem material in class X at MAN 3 Tasikmalaya Regency in the 2024/2025 academic year. This study was conducted at MAN 3 Tasikmalaya Regency in the 2024/2025 academic year, with a population covering all 12 tenth-grade classes. The sample selection used purposive sampling, with class X-7 as the experimental class, class X-2 as the positive control class, and class X-11 as the negative control class. Data were collected through critical thinking skills tests consisting of 12 essay questions and learning outcome tests with 31 multiple-choice questions. Hypothesis analysis was performed using the Ancova test, which produced a significance value of 0.000 for critical thinking skills and 0.044 for learning outcomes, both of which were lower than 0.05, so  $H_0$  was rejected. Thus, the results of the study indicate that there is an effect of the terrarium-assisted project-based learning (PjBL) model, as evidenced by an increase in student scores on critical thinking skills and learning outcomes on ecosystem material in class X at MAN 3 Tasikmalaya Regency.

***Keywords: Project-Based Learning, Terrarium, Critical Thinking Skills, Learning Outcomes***