

ABSTRACT

TIA ARISKA 2025. ***THE EFFECT OF THE SOCIO-SCIENTIFIC ISSUE (SSI)-BASED GENICS MODEL (GROUPING, EXPLORING, DISCUSSION, INDIVIDUAL ACTIVITY, COMBINING, SHARING) ON STUDENTS' BIODIVERSITY LITERACY AND CRITICAL THINKING SKILLS (An Experimental Study on Biodiversity Material in Grade 10 Students of SMAN 2 Tasikmalaya, Academic Year 2025/2026).*** Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya

Biodiversity is a global issue that requires students to have critical thinking skills and biodiversity literacy in order to be able to make the right decisions and show concern for the environment. However, biodiversity literacy and critical thinking skills of students are still relatively low because learning is not contextual or linked to real issues, so that learning models and approaches that are able to connect material with social scientific issues are needed to improve both abilities. Therefore, this study aims to determine the effect of the socio-scientific issue (SSI) based Genics model on biodiversity literacy and critical thinking skills on biodiversity material in class X of SMAN 2 Tasikmalaya. This study was conducted using quantitative methods and Quasi Experimental research design. The population in this study was all class X of SMAN 2 Tasikmalaya in the 2025/2026 Academic Year, totaling 12 classes with a total of 525 students. The sampling technique used purposive sampling, so that three classes were obtained, namely class X-1 as the experimental class, X-2 as the positive control class, and class X-3 as the negative control class. The data collection technique used a multiple-choice test on biodiversity literacy totaling 21 questions and an essay test on critical thinking skills totaling 21 questions. The data analysis technique used the ANCOVA test, based on the results of the analysis showing a significance value of >0.05 , then H_0 was rejected so that H_a was accepted. Continued Bonferroni's further test showed that all pairs of classes on biodiversity literacy and critical thinking skills had a significance value <0.05 , so there was a significant difference in improvement between classes, thus H_a was accepted and H_0 was rejected. The N-Gain value of the experimental class for biodiversity literacy was 0.76 and critical thinking 0.75 (high category); positive control 0.62 and 0.59 (medium category); and negative control 0.23 (low) and 0.32 (medium). Based on these results, it is known that the Genics learning model has a significant influence on the experimental class due to the application of the SSI approach. Although the positive control class and the negative control class experienced an increase, the increase was not as large as the experimental class. Therefore, SSI-based Genics learning has proven more effective in improving biodiversity literacy and critical thinking skills.

Keywords: *Genics; Biodiversity Literacy; Critical Thinking Skills.*