

ABSTRAK

SASKIA FADILLA NUR RACHMAN, 2025. **PENGARUH MODEL *PROBLEM BASED LEARNING* BERBASIS *SOCIOSCIENTIFIC ISSUES* TERHADAP *SUSTAINABILITY LITERACY* DAN KETERAMPILAN ARGUMENTASI ILMIAH PADA MATERI EKOSISTEM (Studi Eksperimen di Kelas X SMAN 2 Tasikmalaya, Tahun Ajaran 2025/2026)**. Program Studi Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya.

Penelitian ini dilatarbelakangi oleh tuntutan pendidikan abad ke-21 yang mengharuskan peserta didik memiliki pemahaman terhadap isu lingkungan serta kemampuan menyampaikan pendapatn berbasis bukti ilmiah. Namun, *sustainability literacy* dan keterampilan argumentasi ilmiah peserta didik masih tergolong rendah sehingga perlu ditingkatkan. Penelitian ini bertujuan untuk mengetahui pengaruh model *problem based learning* berbasis *socioscientific issues* terhadap *sustainability literacy* dan keterampilan argumentasi ilmiah peserta didik kelas X SMAN 2 Tasikmalaya Tahun Ajaran 2025/2025 pada materi ekosistem. Penelitian ini menggunakan metode *quasi experiment* dengan desain *the matching only pretest-posttest control group design*. Hasil pengujian hipotesis menunjukkan nilai signifikansi untuk *sustainability literacy* sebesar 0,003 dan keterampilan argumentasi ilmiah sebesar 0,000. Kedua nilai tersebut lebih kecil dari taraf signifikansi 0,05 ($p < 0,05$), sehingga H_0 ditolak. Dengan demikian, dapat disimpulkan bahwa terdapat pengaruh signifikan dalam penerapan model *problem based learning* berbasis *socioscientific issues* terhadap *sustainability literacy* dan keterampilan argumentasi ilmiah peserta didik.

Kata kunci: *Problem Based Learning, Socioscientific Issues, Sustainability Literacy*, Keterampilan Argumentasi Ilmiah.

ABSTRACT

SASKIA FADILLA NUR RACHMAN, 2025. ***THE EFFECT OF THE SOCIOSCIENTIFIC ISSUES-BASED PROBLEM BASED LEARNING MODEL ON SUSTAINABILITY LITERACY AND SCIENTIFIC ARGUMENTATION SKILLS IN ECOSYSTEM TOPICS (Experimental Study in Class X of SMAN 2 Tasikmalaya City, Academic Year 2025/2026)***. Biology Education Study Program, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya City.

This study was motivated by the demands of 21st-century education, which require students to have an understanding of environmental issues and the ability to express opinions based on scientific evidence. However, students' sustainability literacy and scientific argumentation skills are still relatively low and therefore need to be improved. This study aimed to determine the effect of a problem-based learning model based on socioscientific issues on the sustainability literacy and scientific argumentation skills of tenth-grade students at SMAN 2 Tasikmalaya in the 2025/2026 academic year on ecosystem material. This research employed a quasi-experimental method using the matching only pretest-posttest control group design. The results of hypothesis testing showed that the significance value for sustainability literacy was 0.003 and for scientific argumentation skills was 0.000. Both values were lower than the significance level of 0.05 ($p < 0.05$), indicating that H_0 was rejected. Therefore, it can be concluded that the implementation of the problem-based learning model based on socioscientific issues has a significant effect on students' sustainability literacy and scientific argumentation skills.

Keywords: *Problem-Based Learning, Socioscientific Issues, Sustainability Literacy, Scientific Argumentation Skills.*