

ABSTRAK

Addena Azzahra 1212060002 (2021) : “*Pengaruh Model Pembelajaran Problem Based Learning (PBL) Berbasis Socio-Scientific Issue (SSI) Terhadap Peningkatan Kemampuan Literasi Sains Pada Materi Perubahan Lingkungan*”

Kemampuan literasi sains merupakan bagian dari kompetensi abad 21 yang penting dalam pendidikan sains. Kemampuan literasi sains di Indonesia masih tergolong rendah dan perlu dikembangkan. Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran *problem based learning* berbasis *socio-scientific issue* terhadap peningkatan kemampuan literasi sains pada materi perubahan lingkungan. Penelitian ini menggunakan metode *quasi-experimental* dengan desain *non-equivalen control group*. Analisis data menggunakan uji *independent sample t-test* dengan H1 model PBL berbasis SSI memiliki pengaruh positif terhadap peningkatan kemampuan literasi sains siswa. Hasil penelitian menunjukkan bahwa keterlaksanaan model PBL berbasis SSI dapat diterapkan dengan sangat baik pada materi perubahan lingkungan, kemampuan literasi sains siswa kelas eksperimen lebih tinggi daripada kelas kontrol dengan kelas eksperimen memperoleh nilai N-Gain 0,72 (tinggi) dan kelas kontrol memperoleh N-Gain 0,43 (sedang) dan respon siswa terhadap model PBL berbasis SSI termasuk sangat baik dan antusias. Dapat disimpulkan terdapat pengaruh model PBL berbasis *socio-scientific issue* terhadap peningkatan kemampuan literasi sains siswa pada materi perubahan lingkungan dengan nilai sig. (2-tailed) $0,001 < 0,05$. Implikasi dari penelitian ini adalah pembelajaran dengan model *problem based learning* berbasis *socio-scientific issue* dapat membekali siswa menghadapi isu-isu sains dalam kehidupan nyata.

Kata Kunci : Literasi Sains, Perubahan Lingkungan, PBL, *Socio-Scientific Issue*

ABSTRACT

Addena Azzahra 1212060002 (2021) : *“The Effect of the Problem-Based Learning (PBL) Model Based on Socio-Scientific Issues (SSI) on the Improvement of Scientific Literacy Skills in Environmental Change Topics”*

Scientific literacy skills are part of 21st-century competencies that play an important role in science education. In Indonesia, scientific literacy skills are still relatively low and need further development. This study aims to analyze the effect of the problem-based learning model based on socio-scientific issues on the improvement of students' scientific literacy skills in the topic of environmental change. The study employed a quasi-experimental method with a non-equivalent control group design. Data were analyzed using an independent sample t-test with the alternative hypothesis (H1) stating that the SSI-based PBL model has a positive effect on improving students' scientific literacy skills. The results show that the implementation of the SSI-based PBL model can be carried out very effectively in the environmental change topic. Students in the experimental class achieved higher scientific literacy skills compared to the control class, with the experimental class obtaining an N-Gain score of 0.72 (high) and the control class obtaining an N-Gain score of 0.43 (moderate). In addition, students' responses to the SSI-based PBL model were categorized as very good and enthusiastic. It can be concluded that the SSI-based PBL model has a significant effect on the improvement of students' scientific literacy skills in the environmental change topic, with a significance value of sig. (2-tailed) $0.001 < 0.05$. The implication of this research is that learning through the problem-based learning model based on socio-scientific issues can equip students with the ability to face real-life scientific issues.

Keywords: *Science Literacy, Environmental Change, PBL, Socio-Scientific Issue*