ABSTRAK

EFEKTIVITAS MODEL *PROBLEM BASED LEARNING* BERBASIS ETNOSAINS DALAM MENINGKATKAN LITERASI SAINS PESERTA DIDIK PADA MATERI TITRASI ASAM BASA

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Penelitian ini bertujuan untuk mendeskripsikan efektivitas model *problem based learning* berbasis etnosains dalam meningkatkan literasi sains peserta didik pada materi titrasi asam basa. Metode yang digunakan pada penelitian ini yaitu kuasi eksperimen dengan *pretest posttest control group design* dengan teknik pengambilan sampel *cluster random sampling*. Populasi dalam penelitian ini adalah seluruh peserta didik kelas XI MIPA di SMAN 7 Bandar Lampung tahun ajaran 2022/2023 yang berjumlah 216 orang dengan 2 kelas dijadikan sampel. Kelas XI MIPA 5 sebagai kelas kontrol dan XI MIPA 6 sebagai kelas eksperimen. Peningkatan kemampuan literasi sains peserta didik diukur berdasarkan perbedaan rata-rata nilai n-*Gain* yang signifikan pada kelas eksperimen dan kelas kontrol. Hasil penelitian menunjukkan bahwa rata-rata nilai n-*Gain* literasi sains peserta didik di kelas eksperimen maupun kelas kontrol masing-masing sebesar 0,67 dan 0,57 dengan kriteria sedang. Berdasarkan uji perbedaan dua rata-rata rata-rata nilai n-*Gain* literasi sains peserta didik pada kelas eksperimen lebih tinggi dibandingkan dengan nilai n-*Gain* literasi sains peserta didik pada kelas kontrol. Ukuran pengaruh dilakukan dengan menggunakan uji *effect size*, hasilnya menunjukkan bahwa sebesar 95% tingginya kemampuan literasi sains peserta didik pada kelas eksperimen dipengaruhi oleh pembelajaran dengan menerapkan model *problem based learning* berbasis etnosains. Maka, dapat disimpulkan bahwa pembelajaran dengan menerapkan model *problem based learning* berbasis etnosains efektif meningkatkan literasi sains peserta didik.

Kata kunci: *problem based learning*, etnosains, bir pletok, literasi sains, titrasi asam basa

ABSTRACT

EFFECTIVENESS OF PROBLEM-BASED LEARNING MODELS ETHNOSCIENCE IN IMPROVING SCIENCE LITERACY STUDENTS ON THE MATERIAL ACID BASE TITRATION

By

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This study aims to describe the effectiveness of the ethnoscience-based problem-based learning model in increasing students' scientific literacy in acid-based titration material. The method used in this research is quasi-experimental with pretest posttest control group design with sampling technique sample cluster random sampling. The population in this study were all students in class XI MIPA at SMAN 7 Bandar Lampung in the 2022/2023 academic year. totaling 216 people with 2 classes as a sample. Class XI MIPA 5 as the control class and XI MIPA 6 as the experimental class. The increase in students' scientific literacy skills was measured based on the significant difference in the average n-Gain scores in the experimental class and the control class. The results showed that the average n-Gain value of students' scientific literacy in the experimental class and the control class was 0.67 and 0.57 respectively with moderate criteria. Based on the two-difference test, the average n-Gain value of students' scientific literacy in the experimental class was higher than the n-Gain value of students' scientific literacy in the control class. The effect size was carried out using the effect size test, the results showed that 95% of the high scientific literacy ability of students in the experimental class was influenced by learning by applying the ethnoscience-based problem-based learning model. So, it can be concluded that learning by applying the ethnoscience -based problem-based learning model is effective in increasing students' scientific literacy.

Keywords: problem based learning, ethnoscience, bir pletok, scientific literacy, acid base titration