ABSTRAK

MENINGKATKAN KETERAMPILAN BERPIKIR KRITIS SISWA SMA MELALUI PjBL-STEM PENGOLAHAN LIMBAH KULIT NANAS MENGHASILKAN *NATA DE PINA*

Oleh

SUSI SULASTRI BANUREA

Penelitian ini bertujuan untuk mendeskripsikan keefektifan model PjBL-STEM pengolahan limbah kulit nanas dalam meningkatkan keterampilan berpikir kritis siswa SMA. Metode dalam penelitian ini menggunakan *weak experimental* dengan *one group pretest-posttest design*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI SMA Negeri 14 Bandar Lampung Tahun Ajaran 2024/ 2025. Pengambilan sampel penelitian menggunakan dengan teknik *purposive sampling*, sehingga didapatkan sampel penelitian yaitu kelas XI.1. Instrumen yang digunakan dalam penelitian ini berupa soal pretes dan postes, penilaian kinerja produk pengolahan limbah kulit nanas, penilaian kinerja produk berpikir siswa, respon siswa, dan keterlaksanaan pembelajaran PjBL-STEM. Teknik analisis data dalam penelitian ini menggunakan *N-gain* dan *dependent sample t-test*. Hasil penelitian menunjukkan bahwa rata-rata *N-gain* keterampilan berpikir kritis siswa di kelas berkategori sedang, dan terdapat perbedaaan signifikan antara rata-rata nilai postes dan pretes. Produk yang dihasilkan pada PjBL-STEM adalah *Nata de Pina*. Berdasarkan hasil tersebut dapat disimpulkan bahwa PjBL-STEM pengolahan limbah kulit nanas efektif dalam meningkatkan keterampilan berpikir kritis siswa SMA.

Kata kunci: PjBL-STEM, keterampilan berpikir kritis, limbah kulit nanas

ABSTRACT

IMPROVING CRITICAL THINKING SKILLS OF HIGH SCHOOL STUDENTS THROUGH PjBL-STEM PROCESSING PINEAPPLE SKIN WASTE TO PRODUCE NATA DE PINA

By

SUSI SULASTRI BANUREA

This study aims to describe the effectiveness of the PjBL-STEM model of pineapple peel waste processing in improving critical thinking skills of high school students. The method in this study used a weak experimental with one group pretest-posttest design. The population in this study were all students of class XI of SMA Negeri 14 Bandar Lampung in the 2024/2025 Academic Year. The research sample was taken using a purposive sampling technique, so that the research sample was class XI.1. The instruments used in this study were pretest and posttest questions, performance assessment of pineapple peel waste processing products, performance assessment of student thinking products, student responses, and implementation of PjBL-STEM learning. The data analysis technique in this study used N-gain and dependent sample t-test. The results showed that the average N-gain of students' critical thinking skills in the class was in the moderate category, and there was a significant difference between the ave-rage posttest and pretest scores. The product produced in PjBL-STEM is Nata de Pina. Based on these results, it can be concluded that PjBL-STEM pineapple peel waste processing is effective in improving high school students' critical thinking skills.

Keywords: PjBL-STEM, critical thinking skills, pineapple skin waste