

ABSTRAK

HALIMATUSSA'DIAH: “Peningkatan Keterampilan Berpikir Sistem (KBS) melalui Pembelajaran Proyek Terintegrasi Pendekatan Etno-STREAM (*Science-Technology-Religion-Engineering-Arts-Mathematics*) pada Pembuatan Surabi Hijau Karawang”.

Keterampilan Berpikir Sistem (KBS) merupakan bagian dari keterampilan berpikir tingkat tinggi. Surabi hijau merupakan makanan khas Karawang. Tujuan penelitian untuk menganalisis peningkatan KBS melalui PjBL terintegrasi pendekatan etno-STREAM. Penelitian *Quasy experiment* dengan *The Static-Group Pretest-Posttest Design*. Penelitian dilakukan pada dua kelas siswa SMA yang masing-masing berjumlah 33 siswa pada salah satu SMA Negeri di Kabupaten Karawang menggunakan teknik *purposive sampling*. Instrumen penelitian meliputi: rubrik beserta lembar observasi keterlaksanaan, soal uraian menggunakan indikator KBS, rubrik dan skoring asesmen produk surabi hijau, dan angket refleksi siswa indikator 4F. Keterlaksanaan aktivitas guru dan siswa sebagian besar mencapai kriteria sangat baik. Peningkatan signifikan KBS mencapai *N-gain score* 0,71 kriteria tinggi kelas eksperimen, sedangkan kelas reguler mencapai *N-gain score* 0,52 kriteria sedang. Hasil uji statistik terdapat perbedaan signifikan KBS siswa dengan nilai $\text{sig. } 0,000 < 0,05$. Sebagian besar kelompok siswa mencapai kriteria sangat baik pada penilaian asesmen produk surabi hijau. Sebagian besar siswa mencapai kriteria baik pada angket refleksi indikator 4F. Pembelajaran proyek terintegrasi etno-STREAM ini dapat diterapkan pada materi bioteknologi konvensional melalui penugasan pembuatan produk lokal dalam membekalkan KBS.

Kata Kunci: Pembelajaran Proyek; Etno-STREAM; Keterampilan Berpikir Sistem

ABSTRACT

HALIMATUSSA'DIAH: *“Improving System Thinking Skills (STS) Through Integrated Project Based Learning Using the Ethno-STREAM Approach (Science-Technology-Religion-Engineering-Arts-Mathematics) In Making Green Surabi Karawang”.*

System Thinking Skills (STS) are part of higher-order thinking skills. Green surabi is a traditional food from Karawang. The purpose of this study was to analyse the improvement of KBS through integrated PjBL using the ethno-STREAM approach. This was a quasi-experimental study using a static-group pretest-posttest design. The study was conducted on two high school classes, each consisting of 33 students, at a state high school in Karawang District using purposive sampling. The research instruments comprising: rubrics and observation sheets for implementation, essay questions using STS indicators, rubrics and score sheets for product assessment, and student reflection questionnaires on the 4F indicators. The implementation of teacher and student activities mostly met the very good criteria. Significant improvements in STS achieved an N-gain score of 0.71, meeting the high criteria in the experimental class, while the regular class achieved an N-gain score of 0.52, meeting the moderate criteria. Statistical tests revealed a significant difference in STS scores among students with a significance level of $\text{sig.} 0.000 < 0.05$. Most student groups achieved the ‘very good’ criterion in the green surabi product assessment. Most students achieved the ‘good’ criterion in the 4F indicator reflection questionnaire. This integrated ethno-STREAM project-based learning can be applied to conventional biotechnology material through assignments involving the creation of local products to enhance STS.

Keywords: *Project-based learning; Ethno-STREAM; Systems thinking skills*