ABSTRAK

Amanda WSS : Proyek Es Krim Kefir Ubi Cilembu (*Ipomea batatas*) untuk Meningkatkan Keterampilan Berpikir Kritis dan Literasi Halal Siswa

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model pembelajaran PjBL-STEM melalui proyek es krim kefir ubi Cilembu pada materi sistem pencernaan terhadap peningkatan Keterampilan Berpikir Kritis dan literasi halal siswa serta mengetahui karakteristik produk yang dihasilkan. Penelitian dilakukan menggunakan metode kuasi eksperimen dengan desain *nonequivalent* control group design. Pembelajaran PjBL-STEM diterapkan pada kelas eksperimen, sedangkan kelas kontrol menggunakan pembelajaran *Discovery Learning* melalui kegiatan diari konsumsi makanan. Instrumen penelitian yang digunakan meliputi lembar observasi keterlaksanaan pembelajaran, tes Keterampilan Berpikir Kritis dan literasi halal, serta uji karakterisasi produk es krim kefir ubi Cilembu. Hasil penelitian menunjukkan bahwa keterlaksanaan pembelajaran PjBL-STEM memperoleh kategori sangat baik dengan persentase aktivitas guru sebesar 92% dan aktivitas siswa sebesar 91%. Peningkatan Keterampilan Berpikir Kritis kelas eksperimen memperoleh nilai *N-Gain* sebesar 0,51 (kategori sedang), lebih tinggi dibandingkan kelas kontrol sebesar 0,22 (kategori rendah). Peningkatan literasi halal kelas eksperimen memperoleh nilai *N-Gain* sebesar 0,78 (kategori tinggi), sedangkan kelas kontrol sebesar 0,30 (kategori rendah). Hasil uji hipotesis menunjukkan terdapat perbedaan peningkatan Keterampilan Berpikir Kritis dan literasi halal antara kelas eksperimen dan kelas kontrol. Karakteristik produk es krim kefir ubi Cilembu menunjukkan nilai kadar alkohol sebesar 0,20% dan nilai Analisis Lempeng Total (ALT) sebesar $6{,}41 \times 10^3$ CFU/g. Dengan demikian, pembelajaran PjBL-STEM melalui proyek es krim kefir ubi Cilembu dapat meningkatkan Keterampilan Berpikir Kritis dan literasi halal siswa pada materi sistem pencernaan.

Kata Kunci: Es Krim Kefir Ubi Cilembu; Keterampilan Berpikir Kriits; Literasi Halal; PjBL-STEM; Sistem Pencernaan.

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ABSTRACT

Amanda WSS : ***The Cilembu Sweet Potato (Ipomea batatas) Kefir Ice Cream Project to Enhance Students' Critical Thinking Skills and Halal Literacy***

This study aims to determine the effect of implementing the PjBL-STEM learning model through the Cilembu sweet potato kefir ice cream project on students' critical thinking skills and halal literacy in the digestive system topic, as well as to characterize the developed product. The research used a quasi-experimental method with a nonequivalent control group design. The PjBL-STEM model through the Cilembu sweet potato kefir ice cream project was applied in the experimental class, while the control class used Discovery Learning through food consumption diary activities. The instruments included learning implementation observation sheets, critical thinking and halal literacy tests, and product characterization tests. The results showed that PjBL-STEM implementation achieved a very good category, with teacher activity reaching 92% and student activity reaching 91%. The N-Gain score of critical thinking skills in the experimental class was 0.51 (moderate category), higher than the control class with 0.22 (low category). The N-Gain score of halal literacy in the experimental class was 0.78 (high category), while the control class obtained 0.30 (low category). Hypothesis testing showed differences in the improvement of critical thinking skills and halal literacy between the experimental and control classes. The product characterization showed an alcohol content of 0.20% and a Total Plate Count (TPC) value of 6.41 × 10^3 CFU/g. Therefore, PjBL-STEM through the Cilembu sweet potato kefir ice cream project can improve students' critical thinking skills and halal literacy in the digestive system topic.

Keywords: *Cilembu Sweet Potato Kefir Ice Cream; Critical Thinking Skills; Digestive System; Halal Literacy; Pjbl-STEM.*

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