

ABSTRAK

Sukma Sisca Hardinda Sipahutar, NIM 4172131024 (2021), Pengembangan Sumber Belajar Inovatif Berbasis Proyek Untuk Meningkatkan Kemampuan Berpikir Kritis Mahasiswa Pada Pengajaran Ekstraksi.

Penelitian ini merupakan penelitian *Research and Development* (R&D) yang bertujuan untuk mengembangkan sumber belajar inovatif berbasis proyek berupa E-LKM pada pokok bahasan ekstraksi sehingga dapat diketahui efektifitas untuk meningkatkan kemampuan berpikir kritis dan hasil belajar mahasiswa. Penelitian ini menggunakan alur pengembangan model ADDIE dengan 3 siklus tahap implementasi. Hasil pengembangan menunjukkan E-LKM berbasis proyek memiliki rata-rata total kelayakan standar BSNP = 3,63 dengan kriteria sangat layak dan skor N-gain = 0,761 persentase 76,11% bahwa unjuk kerja E-LKM berbasis proyek berefektivitas tinggi. Uji coba di lapangan, siklus I (perancangan proyek) diperoleh $M_1 = 66,481$ dan $M_2 = 87,699$, siklus II (pelaksanaan proyek) diperoleh $M_3 = 90,278$, dan siklus III (pelaporan proyek) diperoleh $M_4 = 90,412$. Sehingga tampak bahwa terjadi peningkatan rerata skor $M_4 > M_3 > M_2 > M_1$ yang menunjukkan terdapat peningkatan kemampuan mahasiswa pada proses pengajaran ekstraksi. Berdasarkan hasil *pretest* dan *post-test* diperoleh $M_{pretest} = 23,89$ dan $M_{posttest} = 81,85$, sehingga hasil uji hipotesis menunjukkan $|t_{hitung}| > t_{tabel}$ yang berarti bahwa H_0 ditolak dan H_a diterima, artinya terdapat perbedaan antara hasil belajar mahasiswa sebelum dan sesudah dibelajarkan dengan sumber belajar inovatif berbasis proyek hasil pengembangan. Berdasarkan hasil perhitungan terhadap korelasi antara kemampuan berpikir kritis dengan hasil belajar mahasiswa diperoleh $r_{xy \text{ hitung}} = 0,3978$ dengan $r_{xy \text{ tabel}} = 0,3809$ sehingga $r_{xy \text{ hitung}} > r_{xy \text{ tabel}}$, H_0 ditolak, H_a diterima dengan tingkat korelasi positif. dengan kesimpulan ada korelasi antara kemampuan berpikir kritis dengan hasil belajar mahasiswa yang dibelajarkan dengan sumber belajar berbasis proyek pada pengajaran ekstraksi.

Kata Kunci : Sumber Belajar Inovatif, E-LKM, PjBL, Kemampuan Berpikir Kritis, Ekstraksi.

ABSTRACT

Sukma Sisca Hardinda Sipahutar, NIM 4172131024 (2021), The Development of Project-Based Innovative Learning Resources to Improve Students' Critical Thinking Ability in Extraction Teaching

This research is a Research and Development (R&D) that aims to develop project-based innovative learning resources in the form of E-LKM on the subject of extraction so that it can be seen its effectiveness to improve critical thinking skills and student learning outcomes. This study uses the ADDIE model development path with 3 cycles of implementation stages. The results of the development show that project-based E-LKM have an average total eligibility of BSNP standards = 3.63 with very feasible criteria and N-gain score = 0.761, 76.11% percentage that the performance of project-based E-LKM is high. Field trials, cycle I (project design) obtained $M_1 = 66,481$ and $M_2 = 87,699$, cycle II (project implementation) obtained $M_3 = 90,278$, and cycle III (project reporting) obtained $M_4 = 90,412$. So it appears that there is an increase in the mean score of $M_4 > M_3 > M_2 > M_1$ which indicates there is an increase in students' abilities in the extraction teaching process. Based on the results of the pretest and post-test obtained $M_{\text{pretest}} = 23.89$ and $M_{\text{posttest}} = 81.85$, so the results of hypothesis testing show $|t_{\text{count}}| > t_{\text{table}}$ which means that H_0 is rejected and H_a is accepted, meaning that there is a difference between student learning outcomes before and after being taught with innovative learning resources based on development projects. Based on the results of calculations on the correlation between critical thinking skills and student learning outcomes obtained $r_{xy \text{ count}} = 0.3978$ with $r_{xy \text{ table}} = 0.3809$ so that $r_{xy \text{ count}} > r_{xy \text{ table}}$, H_0 is rejected, H_a is accepted with a positive correlation level. with the conclusion that there is a correlation between critical thinking skills and student learning outcomes who are taught using project-based learning resources in extraction teaching.

Keywords : Innovative Learning Resource, E-LKM, PjBL, Critical Thinking Skills, Extraction