

ABSTRAK

Gielf J. S. S. Silalahi, NIM 4183131026 (2024). The Development of Innovative Learning Material With Project to Improve Student Critical Thinking Skills on The Teaching of Redox Titration

Belajar secara mandiri telah menjadi ide populer di pendidikan dalam beberapa tahun terakhir. Akibatnya, mahasiswa mungkin kesulitan memahami standar pendidikan pada perguruan tinggi karena tidak ada deskripsi atau daftar karakteristik yang dapat membantu mereka memahami apa yang disiratkan saat belajar secara mandiri. Oleh karena itu diperlukan materi pembelajaran inovatif yang relevan dan mudah dipahami oleh siswa agar kompeten mengembangkan kapasitas pengetahuannya secara mandiri melalui keterampilan berpikir tingkat tinggi seperti berpikir kritis. Melalui metode penelitian Research and Development dengan menggunakan Model ADDIE, dibuatlah bahan ajar dengan mengintegrasikan model pembelajaran PjBL untuk mengukur skor kelayakan produk, mengukur kemampuan berpikir kritis siswa, mengetahui respon mahasiswa dan mengukur hasil belajar mahasiswa. Berdasarkan hasil validasi, nilai rata-rata hasil validasi diperoleh yaitu 3,56 (sangat tinggi). Setelah dilakukan uji coba produk diketahui respon siswa sebesar 87,68% (sangat baik), skor rata-rata kemampuan berpikir kritis sebelum proposal project sebesar 56,80 dan setelah proposal project sebesar 87,36 dengan skor gain sebesar 0.74 dengan kriteria tinggi menunjukkan adanya peningkatan kemampuan berpikir kritis siswa. Rata-rata hasil pretest siswa yaitu 56,61 dan posttest siswa yaitu 86,77 dengan skor gain sebesar 0.71 dengan kriteria tinggi menunjukkan adanya peningkatan hasil belajar siswa. Secara keseluruhan, bahan ajar terintegrasi model pembelajaran PjBL pada materi Titrasi Redoks layak digunakan.

Keywords: Inovasi, Bahan Ajar, Berpikir Kritis, Titrasi Redoks



ABSTRACT

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Independent learning has become a popular idea in education in recent years. As a result, students may have difficulty understanding educational standards at higher education institutions because there are no descriptions or lists of characteristics that can help them understand what independent study implies. Therefore, innovative learning materials are needed that are relevant and easy for students to understand so that they are competent in developing their knowledge capacity independently through high-level thinking skills such as critical thinking. Through the Research and Development research method using the ADDIE Model, teaching materials were created by integrating the PjBL learning model to measure product feasibility scores, measure students' critical thinking abilities, determine student responses and measure student learning outcomes. Based on the validation results, the average value of the validation results obtained was 3.56 (very high). After testing the product, it was found that the student response was 87.68% (very good), the average score of critical thinking ability before the project proposal was 56.80 and after the project proposal was 87.36 with a gain score of 0.74 with high criteria indicating that increasing students' critical thinking abilities. The average student pretest result was 56.61 and the student posttest was 86.77 with a gain score of 0.71 with high criteria indicating that increasing students' learning outcomes. Overall, the integrated teaching materials of the PjBL learning model on Redox Titration material are suitable for use.

Keywords: Innovative, Learning Material, Critical Thinking Skills, Redox Titration

