ABSTRAK

Polin Jeremia Tampubolon, 4213311011, Pengembangan Bahan Ajar Berbasis Problem Based Learning (PBL) untuk Meningkatkan Literasi Digital pada Siswa Sekolah Menengah Atas (SMA).

Bahan ajar ini dikembangkan sebagai respons terhadap kemajuan pesat dan pemanfaatan teknologi dalam dunia pendidikan. Penelitian bertujuan menghasilkan bahan ajar berbasis PBL yang dapat mendukung proses pembelajaran di sekolah secara lebih efektif dan meningkatkan mutu pendidikan. Media pembelajaran yang dibuat berupa bahan ajar yang dirancang menggunakan aplikasi Canva, yang telah terbukti valid, efektif, dan praktis untuk materi Dimensi Tiga. Metode pengembangan yang diterapkan adalah model 4D yang mencakup tahap Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi. Subjek penelitian terdiri dari 35 siswa di SMA Negeri 12 Medan. Hasil validasi dari para ahli bahan ajar menunjukkan nilai rata-rata 79,99%, termasuk kategori sangat layak. Validasi dari ahli media mencapai rata-rata 87,5%, sedangkan validasi ahli desain memperoleh nilai rata-rata 89,06%, keduanya masuk dalam kategori sangat layak. Respon guru terhadap bahan ajar ini sangat positif dengan persentase 93%, sedangkan respon siswa mencapai 100%. Waktu pembelajaran menggunakan bahan ajar ini tidak melebihi durasi pembelajaran reguler. Dengan demikian, bahan ajar berbasis PBL yang dikembangkan dengan Canva ini dinyatakan sangat valid, praktis, dan efektif untuk digunakan dalam pembelajaran materi pergerakan zat melalui membran sel.

Kata Kunci: Pengembangan Bahan Ajar, Berbasis Problem Based Learning (PBL),Dimensi Tiga, Model 4D.

ABSTRACT

Polin Jeremia Tampubolon, 4213311011, Developing Problem-Based Learning (PBL) Teaching Materials to Improve Digital Literacy in High School Students.

These teaching materials were developed in response to the rapid advancement and utilization of technology in education. The research aims to produce PBL-based teaching materials that can support the learning process in schools more effectively and improve the quality of education. The learning media created were designed using the Canva application, which has been proven valid, effective, and practical for Three Dimensional materials. The development method used was the 4D model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. The research subjects consisted of 35 students at SMA Negeri 12 Medan. Validation results from teaching materials experts showed an average score of 79.99%, categorized as very appropriate. Validation from media experts reached an average score of 87.5%, while validation from design experts achieved an average score of 89.06%, both categorized as very appropriate. Teacher responses to this teaching material were very positive, with a 93% response rate, while student responses reached 100%. Learning time using this teaching material did not exceed the regular learning duration. Thus, this PBL-based teaching material developed with Canva was deemed highly valid, practical, and effective for use in teaching the movement of substances through cell membranes.

Keywords: Teaching Material Development, Problem-Based Learning (PBL), Three Dimensional, 4D Model.