PENGEMBANGAN KONTEN BERDIFERENSIASI BERBASIS *PROJECT BASED LEARNING* PADA PEMBELAJARAN INFORMATIKA UNTUK SMA

Oleh

Muhammad Ilyas Rasyid, NIM 2115051049

Program Studi Pendidikan Teknik Informatika

Jurusan Teknik Informatika

Fakultas Teknik dan Kejuruan

Email: rasyid.ilyas12@gmail.com

ABSTRAK

Metode pembelajaran yang digunakan di SMA Lab Undiksha masih mengandalkan metode pembelajaran tradisional, seperti buku teks LKS dan video YouTube, yang menurunkan motivasi belajar siswa. Selain itu, pembelajaran belum sepenuhnya disesuaikan dengan kebutuhan siswa, sehingga menghambat pemahaman siswa terhadap materi dan menghambat mereka belajar sesuai dengan minat dan kebutuhannya. Penelitian ini bertujuan untuk mengembangkan dan mengkaji reaksi siswa serta mendeskripsikan efektivitas konten pembelajaran terdiferensiasi di kelas IPA dengan menggunakan Project-Based Learning (PBL) untuk siswa kelas 11. Pendekatan Penelitian dan Pengembangan (R&D) dilakukan dengan mengikuti model penelitian ADDIE (Analysis, Design, Development, Implementation, Evaluation). Kelompok partisipan terdiri dari 28 siswa kelas 11-A SMA Lab Undiksha. Pengumpulan data dilakukan melalui survei siswa, survei guru, dan tes awal dan tes akhir untuk mengukur efektivitas. Konten pembelajaran terdiferensiasi yang dibuat dengan menggunakan LMS Canvas dinilai sangat valid, efektif, dan bermanfaat, serta berpotensi meningkatkan pemahaman siswa terhadap materi. Hal ini didukung oleh hasil evaluasi yang dilakukan oleh para ahli konten dan media, yang memiliki peringkat validitas yang cukup tinggi. Hasil analisis respons siswa menunjukkan skor rata-rata yang tinggi, yang menunjukkan bahwa konten tersebut sangat bermanfaat dan diterima dengan baik oleh siswa. Berdasarkan evaluasi efektivitas yang dilakukan melalui uji coba awal dan uji coba akhir dengan siswa, diperoleh nilai N-Gain sebesar 0,79, nilai yang signifikan yang menunjukkan bahwa materi pembelajaran ini efektif dalam meningkatkan pemahaman siswa.

Kata Kunci: Konten Berdiferensiasi, *Project Based Learning*, Pembelajaran Informatika, Kurikulum Merdeka, gaya belajar VAK.

DEVELOPMENT OF DIFFERENTIATED CONTENT BASED ON PROJECT BASED LEARNING IN INFORMATICS LEARNING FOR HIGH SCHOOL

From

Muhammad Ilyas Rasyid, NIM 2115051049

Study Program of Informatics Education

Department of Informatics Engineering

Faculty of Engineering and Vocational

Ganesha University of Education

Email: rasyid.ilyas12@gmail.com

ABSTRACT

The learning methods employed at SMA Lab Undiksha still primarily rely on traditional approaches, such as textbooks and YouTube videos, which have been found to diminish students' motivation to learn. Furthermore, instruction has not been fully adapted to meet students' individual needs, thereby hindering their understanding of the material and limiting opportunities for learning aligned with their interests and requirements. This study aims to develop, assess student responses to, and describe the effectiveness of differentiated instructional content in science classes using a Project Based Learning (PjBL) approach for 11th-grade students. A Research and Development (R&D) methodology was employed, following the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The participant group consisted of 28 students from Class 11-A at SMA Lab Undiksha. Data were collected through student and teacher surveys, as well as pre-tests and post-tests to evaluate instructional effectiveness. The differentiated learning content, developed using the Canvas Learning Management System (LMS), was rated as highly valid, effective, and beneficial, and demonstrated potential in enhancing students' comprehension of the subject matter. This is supported by evaluations from subject matter and media experts, who rated the content as having a high degree of validity. Analysis of student responses indicated high average scores, suggesting that the content was well-received and perceived as highly useful. Effectiveness evaluation, conducted through initial and final trials with students, yielded an N-Gain score of 0.79, a significant value indicating that the learning materials were effective in improving students' understanding.

Keywords: Differentiated Content, Project Based Learning, Informatics Education, Merdeka Curriculum, VAK Learning Styles.