ABSTRAK

PENGEMBANGAN *e*-MODUL PEMROGRAMAN DASAR C++ UNTUK MENDUKUNG GURU DALAM UPAYA MENINGKATKAN *LEVEL OF UNDERSTANDING* SISWA

Oleh

SADAM MAULANA

Penelitian ini menghasilkan produk e-Modul Pemrograman Dasar dengan nama *Meliodas* yang dikembangkan dengan berbantuan *Canva Pro* dan *Platform Heyzine.* Tujuan penelitian ini adalah mengembangkan e-Modul Pemrograman Dasar yang dapat menjadi media pembelajaran bagi guru untuk memudahkan dalam upaya meningkatkan *Level of Understanding* siswa pada materi pemrograman dasar C++ di SMK. Penelitian ini merupakan penelitian *Research and Development* dengan prosedur pengembangan *Design and Development Research* (DDR), terdapat empat tahapan yang dilakukan dalam penelitian ini yaitu analisis, desain, pengembangan, dan evaluasi. Penelitian dilakukan di SMK Plus Banii Saalim dengan sasaran siswa kelas X Teknik Komputer dan Jaringan. Instrumen penelitian menggunakan angket uji validasi, dan angket uji kepraktisan. Uji validasi dilakukan dengan dua angket yaitu angket uji ahli media, dan angket uji ahli materi. Uji kepraktisan dilakukan dengan dua angket yaitu angket persepsi guru dan angket respon siswa. Penelitian menunjukkan hasil bahwa e-modul Pemrograman Dasar C++ *(Meliodas)* dinyatakan sangat layak untuk digunakan sebagai media pembelajaran bagi guru dan siswa dengan uji validasi ahli media mendapat rata-rata persentase keseluruhan sebesar 90,83% dengan kategori sangat valid, uji validasi ahli materi mendapat rata rata persentase keseluruhan sebesar 75,71% kategori valid dan uji persepsi guru mendapat rata-rata persentase keseluruhan sebesar 96,67% kategori sangat praktis dan uji respon siswa sebesar 89,17% dengan kategori sangat valid. Sehingga dapat dikatakan *Meliodas* memiliki tampilan yang menarik, materi yang mudah dipahami, unsur interaktif yang menarik, dan memudahkan serta mendukung guru dalam upaya meningkatkan *Level of Understanding* siswa.

Kata Kunci: Media Pembelajaran, Media Pembelajaran e-Modul, *Level of Understanding, Heyzine.*

ABSTRACT

DEVELOPMENT OF A BASIC C++ PROGRAMMING e-MODULE TO SUPPORT THE TEACHER IN ATTEMPT TO IMPROVE STUDENTS' LEVEL OF UNDERSTANDING

By

SADAM MAULANA

This study produced a Basic Programming e-Module named Meliodas, developed with the help of Canva Pro and the Heyzine platform. The goal of creating this Basic Programming e-Module is to serve as a learning medium for teachers and students, facilitating an increase in students' level of understanding of basic C++ programming concepts in vocational high schools (SMK). The research employed the Research and Development (R&D) method, following the Design and Development Research (DDR) development procedure, which consists of four stages: analysis, design, development, and evaluation. The study was conducted at SMK Plus Banii Saalim, targeting 10th-grade students in the Computer and Network Engineering program. The research instruments used included validation test questionnaires and practicality test questionnaires. The validation test was conducted using two questionnaires: the media expert validation questionnaire and the content expert validation questionnaire. The practicality test involved two questionnaires: the teacher perception questionnaire and the student response questionnaire. The research findings show that the Basic C++ Programming e-Module (Meliodas) is deemed highly suitable for use as a learning medium for both teachers and students. The media expert validation test received an overall average percentage of 90.83%, categorized as very valid, while the content expert validation test received an overall average percentage of 75.71%, categorized as valid. The teacher perception test received an overall average percentage of 96.67%, categorized as very practical, and the student response test achieved 89.17%, categorized as very valid. Therefore, it can be concluded that Meliodas has an attractive design, easy-to-understand content, engaging interactive elements, and effectively enhances students' level of understanding.

Keywords: *Learning Media, e-Module Learning Media, Level of Understanding, Heyzine.*