

ABSTRAK

Tegar Kevin Marpaung: Pengembangan Media Pembelajaran Berbasis *Mobile Application Android* Berbantuan Kodular Pada Materi Sistem Bahan Bakar Injeksi di Kelas XI TBSM SMK N4 Medan. Skripsi. Universitas Negeri Medan. 2023.

Pada mata pelajaran Pemeliharaan Mesin Sepeda Motor, terdapat beberapa permasalahan yang sering dijumpai dalam proses pembelajaran seperti minat belajar, keaktifan siswa belajar, dan sikap siswa kepada guru yang perlu ditingkatkan lagi dan kurangnya inovasi media pembelajaran yang digunakan dalam proses pembelajaran membuat siswa semangat belajar. Penelitian ini bertujuan untuk mengetahui: (1) Cara mengembangkan media pembelajaran berbasis mobile application berbantuan kodular pada materi sistem bahan bakar injeksi kelas XI Teknik Bisnis Sepeda Motor SMK Negeri 4 Medan. (2) Untuk mengetahui kelayakan media pembelajaran berbasis mobile application berbantuan kodular (3) Untuk mengetahui kepraktisan media pembelajaran berbasis mobile application berbantuan kodular.

Penelitian ini dilaksanakan di SMK Negeri 4 Medan, dengan sampel penelitian adalah siswa kelas XI TBSM 2 berjumlah 30 siswa. Metode yang digunakan adalah Penelitian *Research and development* dengan model pengembangan ADDIE yang memiliki 5 tahapan (*Analysis, Design, Development, Implementation and Evaluation*).

Hasil penelitian menunjukkan bahwa pengembangan media pembelajaran berbasis mobile application android yang dikembangkan memenuhi kriteria kelayakan “sangat layak” dan kriteria kepraktisan “sangat praktis” dengan rincian berdasarkan penilaian ahli materi mendapatkan persentase kelayakan sebesar 92,67%, dari ahli media sebesar 92,50%, dari ahli desain pembelajaran sebesar 87,92%, dari hasil uji coba one to one sebesar 90,05%, dari hasil uji coba kelompok kecil 98,18%, dari hasil uji coba kelompok besar sebesar 98,54%. Total perolehan nilai rata-rata keseluruhan sebesar 95,5%. Berdasarkan respon siswa mendapatkan persentase sebesar 98,54% dan respon guru sebesar 97,92%. Hal ini menunjukkan bahwa media pembelajaran berbasis mobile application android berbantuan kodular pada materi sistem bahan bakar injeksi sangat layak dan sangat praktis digunakan di kelas XI TBSM di SMK Negeri 4 Medan.

Kata Kunci: Media Pembelajaran, Mobile Application Android, Kodular, Sistem Bahan Bakar Injeksi, Kelayakan, Kepraktisan.

ABSTRACT

Tegar Kevin Marpaung: Development of Android Mobile Application Based Learning Media with Kodular Assistance on Fuel Injection System Material in Class XI TBSM SMK N4 Medan. Thesis. Medan State University. 2023.

In the Motorcycle Engine Maintenance subject, there are several problems that are often encountered in the learning process such as interest in learning, students' active learning, and students' attitudes towards teachers which need to be improved further and the lack of innovation used in the learning process makes students enthusiastic about learning. This research aims to find out: (1) How to develop mobile application-based learning media with the help of kodular on fuel injection system material for class XI Motorcycle Business Engineering at SMK Negeri 4 Medan. (2) To determine the feasibility of mobile application-based learning media with the help of kodular (3) To find out the practicality of a mobile application-based learning media with the help of kodular

This research was carried out at SMK Negeri 4 Medan, with the research sample being 30 students in class XI TBSM 2. The method used is research research and development with the ADDIE development model which has 5 stages (Analysis, Design, Development, Implementation and Evaluation).

The results of the research show that the development of learning media based on the Android mobile application that was developed meets the feasibility criteria of "very feasible" and the practicality criteria of "very practical" with details based on the assessment of material experts getting a feasibility percentage of 92.67%, from media experts of 92.50%. , from learning design experts it was 87.92%, from the results of one to one trials it was 90.05%, from the results of small group trials it was 98.18%, from the results of large group trials it was 98.54%. The total average score obtained was 95.5%. Based on student responses, the percentage was 98.54% and the teacher's response was 97.92%. This shows that the Android mobile application-based learning media with the help of a code on fuel injection system material is very feasible and very practical to use in class XI TBSM at SMK Negeri 4 Medan.

Keywords: Learning Media, Android Mobile Application, Kodular, Fuel Injection System, Feasibility, Practicality.