

ABSTRAK

Dahlia Melinda Samosir: *Pengembangan Bahan Ajar Berbasis Android Pada Mata Pelajaran Teknik Komputer dan Jaringan Sebagai Suplemen Pembelajaran Siswa Kelas XI TKJ di SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2024.*

Penelitian dilakukan dengan tujuan untuk mengembangkan bahan ajar berbasis android hasil pengembangan dari elemen ke 4 yaitu Pemasangan dan Konfigurasi Perangkat Jaringan dan untuk mengetahui kelayakan bahan ajar yang dikembangkan. Kegiatan pembelajaran di SMK Negeri 1 Percut Sei Tuan kegiatan belajar mengajar dikelas bahan ajar yang digunakan guru adalah bahan ajar buku dan juga media powerpoint yang dimanfaatkan hanya sebagai penampil teks pembelajaran. Capaian pembelajaran Pemasangan dan Konfigurasi Perangkat Jaringan siswa harus mampu menerapkan pemasangan dan penggantian perangkat jaringan kedalam sistem jaringan, menerapkan konfigurasi dan pengujian VLAN dan menerapkan konfigurasi routing. Pelaksanaan penerapan kegiatan pembelajaran tersebut ditemukan kendala bahwasanya beberapa siswa cukup kesulitan jika hanya mempraktekkan hanya dengan materi yang telah dipelajarikurangnya bahan ajar menjadi peluang dalam pembuatan bahan ajar berbasis android sebagai suplemen pembelajaran siswa untuk membantu siswa dalam memahami materi pembelajaran dalam penerapan capaian dan tujuan pembelajaran. Penelitian dilakukan pada kelas XI TKJ SMK negeri 1 Percut Sei Tuan. Model pengembangan dan prosedur penelitian ini menggunakan model ADDIE (*Analyze, Design, Development, Implementation, Evaluation*). Pengujian terhadap bahan ajar yang dikembangkan meliputi pengujian kelayakan materi, media, dan bahasa serta kebergunaan pada bahan ajar. Hasil uji kelayakan diperoleh nilai 96,36% untuk uji kelayakan materi, 89,47% untuk kelayakan media, dan 86% untuk kelayakan bahasa. Hasil pengujian dari akseptabilitas oleh peserta didik memperoleh nilai 4,602. Perolehan nilai tersebut menyatakan bahwasanya bahan ajar berbasis android sangat layak digunakan.

Kata Kunci: Bahan Ajar, Android, Suplemen Pembelajaran.

ABSTRACT

Dahlia Melinda Samosir: *Development of Android-Based Teaching Materials in Computer and Network Engineering Subjects as a Learning Supplement for Class XI TKJ Students at SMK Negeri 1 Percut Sei Tuan. Thesis. Medan State University Faculty of Engineering. 2024.*

The research was carried out with the aim of developing Android-based teaching materials resulting from the development of the 4th element, namely Installation and Configuration of Network Devices and to determine the feasibility of the teaching materials being developed. Learning activities at SMK Negeri 1 Percut Sei Tuan, teaching and learning activities in class, the teaching materials used by teachers are book teaching materials and also PowerPoint media which is used only as a display for learning texts. Learning outcomes Installation and Configuration of Network Devices Students must be able to install and replace network devices into a network system, implement VLAN configuration and testing and implement routing configuration. In the implementation of these learning activities, obstacles were found in that some students had quite difficulty if they only practiced using the material they had studied. The lack of teaching materials became an opportunity to create Android-based teaching materials as a supplement to student learning to help students understand the learning material in applying learning outcomes and objectives. The research was conducted in class XI TKJ SMK Negeri 1 Percut Sei Tuan. The development model and research procedures use the ADDIE (Analyze, Design, Development, Implementation, Evaluation) model. Testing of the teaching materials developed includes testing the appropriateness of the material, media and language as well as the usefulness of the teaching materials. The results of the feasibility test obtained a score of 96.36% for the material feasibility test, 89.47% for the media feasibility, and 86% for the language feasibility test. The test results of acceptability by students obtained a score of 4.602. These scores indicate that Android-based teaching materials are very suitable for use.

Keywords: Teaching materials, Android, Learning Supplements