ABSTRACT

Tengku Salwa Miranti, 8136121029. This study aims to develop multimedia-based learning media that can support computer learning and basic networks, especially in class X TKJ SMK Swasta Teladan Medan. The development of multimedia learning in computer subjects and basic networks is obtained through observation from teachers and students of the Medan Exemplary Private Vocational School, stating that media is needed for learning.

This research was adapted from the Borg and Gall development model combined with Dick and Carey's learning design model. This stage consists of several stages, stage 1 of the development revision based on expert judgment, stage II of the development revision based on the assessment of 3 students, stage III of the development revision of 9 students and stage IV of a small revision of the development of the field trial. The results showed that (1) Based on an evaluation of multimedia-based Computer and Network Learning media in a field trial with 30 students of SMK Swasta Teladan Medan of each aspect. Guidance and information aspects were 86.67%, media material aspects were 87.90%, evaluation aspects were 88.40%, design aspects and media facilities were 89.13% and pedagogic aspects were 90.27%, each indicating that the products developed were Very good or very decent. (2) The results of multimedia-based multimedia implementation in learning in the experimental class and the control class produce differences in learning outcomes using the hypothesis test (t-test) comparing t count with t table then t count> t table = 5.785> 1.679. Then it can be concluded that the results of students' learning on computers and basic networks using multimedia learning media is higher than students taught with PowerPoint. In addition to the media also requires an attractive learning model so that students are challenged in learning and increasing student interest. It is also able to arouse the independence of students and students are able to think critically. The use of learning models that are compatible with computers and basic networks such as the use of problem based learning models where learning changes occur involving students with all nuances, also includes all the bonds, interactions and differences that maximize the learning moment.

Keywords: multimedia learning, problem based learning, learning outcomes

ABSTRAK

Tengku Salwa Miranti, 8136121029. Penelitian ini bertujuan untuk mengembangkan media pembelajaran berbasis multimedia yang dapat menunjang pembelajaran komputer dan jaringan dasar yang khususnya di kelas X TKJ SMK Swasta Teladan Medan. Pengemabangan multimedia pembelajaran pada mata pelajaran komputer dan jaringan dasar diperoleh malalui observasi dari guru dan siswa SMK Swasta Teladan Medan, menyatakan media sanagat dibutuhkan dalam pembelajara.

Peneletian ini diadaptasi dari model pengembangan Borg dan Gall yang dipadu dengan model desain pembelajaran Dick dan Carey. Tahap ini terdiri dari beberapa tahapan, tahap 1 revisi pengembangan berdasarkan penilaian para ahli, tahap II revisi pengembangan berdasarkan penilaina dari 3 orang siswa, tahap III revisi pengembangan dari 9 orang siswa dan tahap IV revisi kecil dari pengembangan uji coba lapangan. Hasil penelitian menunjukkan bahwa (1) Berdasarkan penilaian terhadap media pembelajaran Komputer dan Jaringan Dasar berbasis multimedia pada uji coba lapangan dengan 30 siswa SMK Teladan Medan dengan persentase dari masing- masing aspek. Aspek panduan dan informasi 86,67%, aspek materi media 87,90%, aspek evaluasi 88,40%, aspek desain dan fasilitas media 89,13% dan aspek pedagogic 90,27%, yang masing - masing menunjukkan bahwa produk yang dikembangkan Sangat Baik atau sangat layak. (2) Hasil implementasi multimedia berbasis multimedia pada pembelajaran di kelas eksperimen dan kelas kontrol menghasilkan perbedaan hasil belajar dengan menggunakan uji hipotesis (uji-t) membandingkan antara t_{hitung} dengan t_{tabel} maka $t_{hitung} > t_{table} = 5,785 > 1,679$. Maka dapat disimpulkan bahwa hasil belajar komputer dan jaringan dasar siswa menggunakan media pembelajaran multimedia lebih tinggi dari siswa yang diajar dengan powerpoint .Selain media juga dibutuhkan model pembelajaran yang menarik agar siswa tertantang dalam belajar dan meningkatkan minat siswa. Selain itu juga mampu membangkitkan kemandirian siswa dan siswa mampu berfikir kritis. Penggunaan model pembelajaran yang sesuai dengan komputer dan jaringan dasar seperti penggunaan model pembelajaran problem based leraning dimana terjadi pengubahan pembelajaran yang melibatkan siswa dengan segala nuansanya, juga menyertakan segala ikatan, interaksi dan perbedaan yang memaksimalkan momen belajar.

Kata Kunci : multimedia pembelajaran, problem based learning, hasil belajar