

DESAIN DAN IMPLEMENTASI KARTU ELEKTRONIK GERBANG LOGIKA SEBAGAI MEDIA PEMBELAJARAN KONSEP LOGIKA DASAR

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ABSTRAK

Penelitian mengenai pengembangan media pembelajaran yang mudah dalam penggunaan sebagai media pembelajaran konsep gerbang logika dasar, serta memaparkan kondisi awal pembelajaran dan memaparkan hasil implementasi media pembelajaran.

Metode Penelitian yang digunakan merupakan metode penelitian dan pengembangan (*Research and Development*) dengan mengambil sampel sebanyak 36 siswa kelas XI Program Keahlian Teknik Komputer dan Informatika SMK Negeri 2 Bandung dengan tahapan sampai pada uji coba terbatas saja. Sebelum media pembelajaran diaplikasikan kepada siswa, dilaksanakan uji kelayakan terlebih dahulu oleh beberapa ahli yang kompeten. Hasil uji kelayakan tingkat pencapaian kualifikasi baik sehingga media tidak perlu direvisi. Pengolahan data dilakukan dengan menghitung perolehan angket dan kemudian dideskriptifkan.

Hasil penelitian menunjukkan bahwa kondisi awal pembelajaran konsep digital di SMK Negeri 2 Bandung dimana penggunaan media pembelajaran yang digunakan merupakan media pembelajaran berbentuk gambar. Permasalahan lain, siswa merasa metode mengajar guru hanya mencatat.

Berdasarkan hasil studi pendahuluan tersebut, penggunaan media pembelajaran Kartu Elektronik Gerbang Logika dapat dijadikan solusi dalam upaya mengurangi permasalahan tersebut. Hasil uji coba terbatas terhadap siswa menunjukkan bahwa media pembelajaran Kartu Elektronik Gerbang Logika mampu memenuhi kebutuhan siswa dalam mempelajari konsep gerbang logika dasar.

Kata Kunci : *Research and Development* (R&D), Media Pembelajaran, Kartu Elektronik Gerbang Logika, Konsep Logika Dasar

**DESIGN AND IMPLEMENTATION ELECTRONIC CARD GATE LOGIC
AS LEARNING MEDIA BASIC LOGIC CONCEPTS**

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ABSTRACT

Research on the development learning media that is easy to use as a learning media the basic concepts of logic gates, and describes the initial conditions learning and presents the results of the implementation of learning media.

The research method used is a method of research and development (Research and Development) by taking a sample of 36 students of class XI Skills Program Computer Engineering and Informatics at SMK Negeri 2 Bandung by stages to the limited testing only. Before learning media applied to student, conducted feasibility test in advance by some competent experts. The results of the feasibility test qualification attainment levels well so that the media does not need to be revised. Data processing is done by counting the acquisition questionnaire and then described.

The results showed that the initial conditions of the concept of digital learning at SMK Negeri 2 Bandung where the use learning media used is a form learning media images. Another problem, students feel teaching methods the teachers just noted.

Based on the results of the preliminary study, the use learning media Electronic cards Logic Gate can be used as a solution in an effort to reduce the problem. The limited test results showed that learning media Electronic Card Logic Gate is able to meet the needs of students in learning the basic concepts of logic gates.

Keywords: Research and Development (R & D), Learning Media, Electronic Card Gate Logic, Basic Logic Concepts