

## ABSTRAK

Keterserapan tamatan Sekolah Menengah Kejuruan (SMK) di Dunia Usaha dan Dunia Industri (DUDI) yang belum optimal. Hal ini dikarenakan rendahnya kesiapan kerja lulusan. Faktor penyebabnya adalah ; a) Perencanaan dan pengembangan karir siswa SMK belum terprogram dengan baik, b) Sistem informasi pengembangan karir di SMK belum optimal, c) Kompetensi lulusan yang dihasilkan belum sesuai dengan kebutuhan DUDI. Ekplorasi karir siswa SMK merupakan salah satu jalan mempersiapkan karir lulusan SMK yang menyesuaikan dengan kebutuhan DUDI. Tujuan ekplorasi karir adalah mengidentifikasi jalur-jalur untuk pilihan karir siswa SMK setelah lulus, dimana pemilihan karir dipilih berdasarkan kebutuhan DUDI. targetnya siswa SMK yang siap kerja memilih jenjang karir yang sesuai dengan kebutuhan DUDI sehingga memperoleh kepuasan DUDI dari segi Sumber Daya Manusia (SDM) lulusan SMK. Tujuan penelitian menghasilkan sistem informasi eksplorasi karir siswa SMK berbasis DUDI yang efisien dan efektif serta membantu siswa dalam perencanaan dan pengembangan karir secara mandiri dengan memanfaatkan media digital dalam bentuk sistem pakar menggunakan sistem informasi karir yang sesuai dengan DUDI. Jenis penelitian yang digunakan adalah *Research and Development metode Four-D* melalui empat langkah kerja yaitu *Define*, menentukan potensi masalah dan mengidentifikasi kebutuhan DUDI. *Design*, merancang tampilan produk dengan menggunakan expert system berbasis DUDI. *Develop*, pengembangan kode program dengan menggunakan bahasa pemrograman PHP, serta uji coba produk. *Disseminate*, sosialisasi produk ke siswa SMK Penerbangan Padang. Hasil dari penelitian ini adalah Expert System tentang eksplorasi karir siswa SMK berbasis DUDI.

**Kata Kunci:** Expert System, Career Exploration, DUDI, SMK.

## ABSTRACT

Absorption of Vocational High School (SMK) graduates in the Business and Industrial World (DUDI) is not yet optimal. This is due to the low work readiness of graduates. The causative factors are; a) The planning and career development of SMK students have not been programmed properly, b) The information system for career development in SMK has not been optimal, c) The competence of graduates produced is not in accordance with the needs of DUDI. Career exploration of vocational students is one way to prepare careers for vocational graduates that adapt to the needs of DUDI. The purpose of career exploration is to identify pathways for students' career choices after graduation, where career choices are selected based on DUDI's needs. The target is that SMK students who are ready to work choose a career path that is in accordance with DUDI's needs so as to obtain DUDI satisfaction in terms of Human Resources (HR) of SMK graduates. The purpose of this research is to produce an efficient and effective DUDI-based vocational information system for vocational students and assist students in planning and developing careers independently by utilizing digital media in the form of an expert system using a career information system that is compatible with DUDI. The type of research used is the Four-D Research and Development method through four working steps, namely Determining potential problems and identifying DUDI needs. Design, designing product displays using a DUDI-based expert system. Develop, develop code programs using the PHP programming language, as well as product trials. Socialization, product socialization to Padang Aviation Vocational School students. The result of this research is an expert system on career exploration of vocational students based on DUDI.

**Keywords:** Expert System, Career Exploration, DUDI, SMK.