

ABSTRAK

Siswa kelas XII di SMK Negeri 8 Jakarta masih mengalami kesulitan dalam menentukan program studi perguruan tinggi yang sesuai dengan kemampuan akademik serta minat yang dimiliki. Proses pemilihan program studi umumnya masih dilakukan berdasarkan pertimbangan pribadi atau saran dari lingkungan sekitar, sehingga berpotensi menimbulkan ketidaksesuaian antara kemampuan siswa dengan program studi yang dipilih. Kondisi tersebut dapat memengaruhi keberlanjutan pendidikan siswa di jenjang perguruan tinggi. Penelitian ini dilakukan untuk merancang sebuah sistem pendukung keputusan berbasis web yang dapat membantu proses pemberian rekomendasi program studi secara lebih terarah. Metode yang diterapkan merupakan kombinasi *Analytical Hierarchy Process* (AHP) dan *Profile Matching*. Metode AHP digunakan untuk memperoleh bobot prioritas setiap kriteria berdasarkan hasil penilaian pakar, sedangkan metode *Profile Matching* digunakan untuk membandingkan profil akademik siswa dengan karakteristik yang dimiliki masing-masing program studi. Sistem dibangun menggunakan framework Next.js dengan dukungan Tailwind CSS dan basis data Supabase. Pengujian fungsional dilakukan menggunakan metode Black Box Testing yang difokuskan pada skenario pengujian Guru BK selaku Administrator utama sistem. Hasil pengujian menunjukkan bahwa seluruh fitur dan modul sistem dapat berjalan valid sesuai dengan kebutuhan fungsional yang dirancang. Berdasarkan hasil pengujian tersebut, sistem dinilai mampu membantu siswa dan Guru BK dalam mendukung proses penentuan program studi yang lebih sesuai dengan potensi akademik siswa di SMK Negeri 8 Jakarta.

Kata Kunci : *Analytical Hierarchy Process*, Pemilihan Program Studi, *Profile Matching*, Sistem Pendukung Keputusan, Web.

ABSTRACT

Twelfth-grade students at SMK Negeri 8 Jakarta still experience difficulties in determining university study programs that align with their academic abilities and personal interests. In general, the process of selecting a study program is often based on personal considerations or recommendations from surrounding individuals, which may lead to a mismatch between students' capabilities and the chosen study programs. This condition may affect the continuity of students' higher education journey. Therefore, this study was conducted to design a web-based Decision Support System (DSS) that can assist in providing more appropriate study program recommendations. The proposed approach combines the Analytical Hierarchy Process (AHP) and Profile Matching methods. The AHP method is applied to determine the priority weights of each criterion based on expert judgments, while the Profile Matching method is used to compare students' academic profiles with the characteristics of each study program. The system was developed using the Next.js framework with Tailwind CSS and Supabase database support. Functional testing was carried out using the Black Box Testing method, focusing on testing scenarios for the Guidance Counseling Teacher as the primary system administrator. The results showed that all system features operated validly according to the specified requirements. Based on these results, the developed system is considered capable of assisting students and Guidance and Counseling teachers in supporting the process of selecting study programs that are more aligned with students' academic potential at SMK Negeri 8 Jakarta.

Keywords: Analytical Hierarchy Process, Decision Support System, Profile Matching, Study Program Selection, Web.