

ABSTRACT

Title : DECISION SUPPORT SYSTEM FOR OUTSTANDING STUDENT SCHOLARSHIP RECIPIENTS USING THE SIMPLE ADDITIVE WEIGHTING (SAW) METHOD

Name : INSANI RAHMADTHAN ILLAHI

No. BP : 21101152610109

Study Program : INFORMATION SYSTEM

Education Level : STRATA 1 (S1)

Mentor : 1. Sepsa Nurrahman, S.Kom., M.Kom
2. Muhammad Habib Yuhandri, S.Kom., M.Kom

This research is a research on the Decision Support System for determining prospective scholarship recipients for outstanding students at SMA Negeri 6 Padang is still carried out manually. Therefore, a Decision Support System is needed that can speed up and simplify the process. This study aims to design, implement and determine the optimality of the Decision Support System using the Simple Additive Weighting (SAW) method to provide the best alternative in determining scholarship recipients for outstanding students at SMA Negeri 6 Padang. The data collection technique in this study with observation, interviews, and literature study The Simple Additive Weighting (SAW) Method was chosen because it was able to select the best alternative based on the weight value of each criterion that had been determined according to how much influence a criterion had on the final decision. The implementation of the method uses the PHP Programming Language and MySQL database. The sample population taken was 8 students at SMA Negeri 6 Padang. From the results of determining prospective recipients of the outstanding student scholarship using the Simple Additive Weighting (SAW) method, the one who deserves the outstanding student scholarship is a student named Surastri who has the highest ranking with a score of 0.9433 for the best alternative. This system has proven to be effective in increasing transparency, efficiency, and fairness in the selection process of outstanding student scholarship recipients

Keywords: *Decision Support System, Scholarships, Outstanding Students, Simple Additive Weighting (SAW)*

ABSTRAK

Judul : **SISTEM PENUNJANG KEPUTUSAN PENERIMA BEASISWA MURID BERPRESTASI MENGGUNAKAN METODE *SIMPLE ADDITIVE WEIGHTING* (SAW)**

Nama : **INSANI RAHMADTHAN ILLAHI**

No. BP : **21101152610109**

Program Studi : **SISTEM INFORMASI**

Jenjang Pendidikan : **STRATA 1 (S1)**

Pembimbing : **1. Sepsa Nurrahman, S.Kom., M.Kom**
2. Muhammad Habib Yuhandri, S.Kom., M.Kom

Penelitian ini merupakan penelitian Sistem Penunjang Keputusan penentuan calon penerima beasiswa murid berprestasi di SMA Negeri 6 Padang masih dilakukan secara manual. Oleh karena itu, diperlukan sebuah Sistem Penunjang Keputusan yang dapat mempercepat dan mempermudah proses tersebut. Penelitian ini bertujuan untuk merancang, mengimplementasikan dan mengetahui keoptimalan Sistem Penunjang Keputusan menggunakan metode *Simple Additive Weighting* (SAW) untuk memberikan alternatif terbaik dalam penentuan penerima beasiswa murid berprestasi pada SMA Negeri 6 Padang. Teknik pengumpulan data pada penelitian ini dengan observasi, wawancara, dan literatur studi pustaka Metode *Simple Additive Weighting* (SAW) dipilih karena mampu menyeleksi alternatif terbaik berdasarkan nilai bobot tiap kriteria yang telah ditentukan sesuai dengan seberapa besar pengaruh suatu kriteria terhadap keputusan akhir. Implementasi metode tersebut menggunakan Bahasa Pemrograman PHP dan *database* MySQL. Populasi sampel yang diambil sebanyak 8 siswa di SMA Negeri 6 Padang. Dari hasil penentuan calon penerima beasiswa murid berprestasi dengan menggunakan metode *Simple Additive Weighting* (SAW) maka yang layak mendapatkan beasiswa murid berprestasi adalah siswa bernama Surastri yang memiliki ranking tertinggi dengan nilai 0,9433 alternatif terbaik. Sistem ini terbukti efektif dalam meningkatkan transparansi, efisiensi, dan keadilan dalam proses penyeleksian penerima beasiswa murid berprestasi

Kata Kunci: Sistem Penunjang Keputusan, Beasiswa, Murid Berprestasi, *Simple Additive Weighting* (SAW)