ABSTRACT

Education is one of the most important things in life. One of the education levels in the formal sector is higher education. One of the most popular paths to enter college is SNBP (National Selection Based on Merit). Selection of majors in SNBP is a difficult thing because you have to know the majors that match your abilities. The role of technology in education can be applied in this selection decision. However, at SMAN 1 Gegesik Cirebon Regency, the selection of SNBP majors is still done manually by consulting with counseling guidance teachers and results in a lack of efficiency in the objectivity of the BK teacher's decision in suggesting majors that may be chosen by students. To overcome this problem, an ELECTRE method-based Decision Support System (DSS) was developed using the Waterfall Model software development process. This ELECTRE method provides measurable mathematical calculations based on various criteria such as the average score of six subjects from semester one to five, student achievement, the tightness of the major to be chosen, and the number of alumni at the college who passed through the SNBP pathway. System development using the Waterfall model ensures a systematic approach from requirements analysis to system testing. With this system, it is expected that the SNBP major selection process will become more measurable because it reduces non-objective assessments and replaces them with data-based calculations. The results show that this application can help students make decisions by providing reasonable and measurable suggestions. The results of black-box testing show that the application features function properly and in accordance with the specifications set, which indicates the success of this research.

Keywords : Decision Support System, ELECTRE, SNBP