ABSTRAK

Penilaian kinerja Widyaiswara merupakan salah satu aspek penting dalam meningkatkan kualitas penyelenggaraan pendidikan dan pelatihan (diklat) di BPSDMD Provinsi Sumatera Selatan. Proses penilaian yang masih dilakukan secara semi-terkomputerisasi dinilai kurang efisien dan berpotensi menimbulkan subjektivitas dalam pengambilan keputusan. Penelitian ini bertujuan membangun sistem Elektronik Penilaian Diklat (E-PEDIK) berbasis *web* yang mampu mengotomasi proses evaluasi diklat serta menentukan status Widyaiswara Berprestasi menggunakan algoritma *Decision tree* C4.5. Sistem dikembangkan menggunakan metode *Waterfall*, *framework CodeIgniter 4*, dan basis data *MySQL*. Data penelitian terdiri dari 108 data hasil evaluasi widyaiswara berdasarkan 10 kriteria penilaian. Hasil penelitian menunjukkan bahwa sistem E-PEDIK berhasil dibangun dengan fitur pengelolaan penilaian, perhitungan nilai otomatis, klasifikasi predikat penyelenggaraan diklat, dan penentuan status Widyaiswara Berprestasi. Hasil pengolahan data menggunakan algoritma C4.5 menunjukkan bahwa atribut K2 (Sistematika Penyajian dan Kemampuan Menyajikan Materi) menjadi akar pohon keputusan dengan nilai *gain* tertinggi. Pengujian model menggunakan *10-Fold Cross Validation* menghasilkan tingkat akurasi sebesar 87,73%, sedangkan pengujian *Black Box Testing.* menunjukkan seluruh fungsi sistem berjalan sesuai dengan yang diharapkan. Dengan demikian, sistem E-PEDIK dapat membantu meningkatkan efisiensi, objektivitas, dan transparansi proses penilaian diklat.

Kata kunci : E-PEDIK, *Decision tree* C4.5, Penilaian Diklat, Widyaiswara Berprestasi

ABSTRACT

The evaluation of Widyaiswara performance is an important aspect in improving the quality of education and training programs at the Regional Human Resource Development Agency (BPSDMD) of South Sumatra Province. The current semi-computerized evaluation process is considered less efficient and has the potential to introduce subjectivity in decision-making. This study aims to develop a web-based Electronic Training Evaluation System (E-PEDIK) capable of automating the training evaluation process and determining the status of Outstanding Widyaiswara using the Decision tree C4.5 algorithm. The system was developed using the Waterfall method, CodeIgniter 4 framework, and MySQL database. The research data consisted of 108 Widyaiswara evaluation records based on 10 assessment criteria. The results show that the E-PEDIK system was successfully developed with features for evaluation management, automatic score calculation, training evaluation classification, and determination of Outstanding Widyaiswara status. The implementation of the C4.5 algorithm indicates that attribute K2 (Systematic Presentation and Material Delivery Ability) becomes the root node of the Decision tree with the highest gain value. Model evaluation using 10-Fold Cross Validation achieved an accuracy of 87.73%, while Black Box Testing. showed that all system functionalities operated as expected. Therefore, the E-PEDIK system can improve the efficiency, objectivity, and transparency of the training evaluation process.

Keywords : E-PEDIK, Decision tree C4.5, Training Evaluation, Outstanding Widyaiswara