

Abstract

In E-learning, type of questions in examination are often in multiple choice or short answer. Although essay assessment is relatively difficult done objectively, but essay assessment is deemed still necessary to conduct the evaluation process of learning. This is because of this essay has the advantage of representing the ability of students in understanding the learning outcomes.

This final project created a web-based system for evaluating learning outcomes. The method used in Automatic Essay Grading using Latent Semantic Analysis (LSA). These method has characteristics to extract and represent the sentence with mathematical calculations and prioritize the key words contained in a sentence without regard to linguistic characteristics. Mathematical calculations done by mapping the presence or absence of word semantic word groups in the matrix and then processed using linear algebraic technique of Singular Value decomposition (SVD).

Implementation of these Automatic Essay Grading System using PHP programming language. While the SVD process using the Java language library JAMA. After analyzing the test, it can be concluded that the LSA method has been used to assess the answers to essay and has an output a value. Parameter that affect the assessment is the large dimension of the reduced matrix in SVD. The correlation between human raters rating is generated by the system is 45.03% and 50.55%.

Keywords : information retrieval, automatic essay grading system, human raters LSA, SVD, matrix, term, query.