## Abstract

Each learning process requires an evaluation in the form of an exam to know success in learning. Essay-type exam, is generally used by teachers to measuring student understanding of the course material. One of the weaknesses of essay-type exam is the difficulty to give objective scoring and and takes a lot of time to review essays.

Essay scoring system is built to be one solution that can speed up and simplify the process of scoring. Essay scoring system in this study was done by measuring the similarity of responses of the students and teacher answer key with cosine similarity method. This method works by calculating the cosine value of the answer key document and student answer document. The documents are done preprocessing process to get the list of terms. The list of terms will be calculated using TF-IDF. To get the value on the essay answer, the cosine similarity is multiplied by the weight of the value.

The results of the system appraisal will be compared with the manual assessments made by 3 expert judgment. To calculate the value of the correlation between the system and manual, then used the technique Pearson Product Moment. Correlation values obtained between the system and the manual at about 0.26213. Thus it can be stated that the correlation between the assessment of the system and the manual judgment has a positive linear relationship with the strength of the correlation relationship in the low category.

**Keywords**: essay scoring, tf-idf, Cosine Similarity, Pearson Product Moment.