

## **Simple: Sistem Penilai Esei Otomatis untuk Menilai Ujian dalam Bahasa Indonesia**

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**SIMPLE: System Automatic Essay Assessment for Indonesian Language Subject Examination.** Evaluation of study of a student is a very important aspect of an educational process. Evaluation is aimed at measuring the level of student understanding of the given lecture materials. Measuring student understanding of the course material, using essay-type exam, is generally used as the evaluation tool. In this essay-type exam, the student has to answer questions using sentences, whereby choices of possible answers are not indicated. The student has to answer the questions with his/her sentences. The answers may vary, since it reflects the student's best thoughts of the materials. One of the weaknesses of essay-type exam is the difficulty to grade the answers and it tends to be time consuming. Currently, automatic grading systems that may speed up the grading process, are being developed in many research institutions. The method used to grade, varies from one system to another, and one of the popular system is the Latent Semantic Analysis (LSA). LSA is a method of grading essay by extracting words and representing the sentence in the form of mathematical or statistical formulation, from a text with a relatively large number of words. The grade of the essay is determined, by matching the important words to a group of words prepared by the human rater. This paper describes an effort to developed LSA, enhanced with word weighting, word order and the word synonym to improve the accuracy of grading. This system is called SIMPLE. SIMPLE is used to grade answers using bahasa Indonesia. The exam is carried out on-line through the Web. From the experiments conducted, for small classes, the conformity of grade compared to the grade of human rater lies between 69.80 % – 94.64 %, and for medium size classes the conformity lies between 77.18 % - 98.42 % with the human rater. These results are roughly proportional with the result of LSA system, which grade essay given in English.

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