Classification of Citation Sentences in Indonesian Scientific Papers Using the Support Vector Machine (SVM) Method

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ABSTRACT

Scientific writing plays an important role in improving the quality of education in Indonesia. One way to assess the quality of scientific work is through the analysis of citation sentences. However, the citation sentence classification process is still a challenge. This research aims to build a classification model of quoted sentences using the Support Vector Machine (SVM) algorithm with TF-IDF feature extraction. The developed model is able to classify quoted sentences into three classes: background, method, and result. The test results showed that the model achieved an accuracy of 81.69%, with an average precision of 82.54%, and recall of 75.7%. In addition, the F1 scores for each label are background (85.65%), method (75.11%), and result (73.92%). This research successfully developed a website that can be used to classify citation sentences using the SVM method. The results of this study are expected to help authors in compiling higher quality scientific work and can help to improve the reputation of the author.

Keywords: Citation Sentence Classification, Support Vector Machine (SVM), Bibliometric Analysis, Scientific Writing.