ABSTRACT

Education is basically a process of inheriting the nation's culture and character for the younger generation. The values chosen in strengthening character education, honesty is one of them, therefore the main goal of an education is to form honesty. However, there are still many students who cheat in the learning process, one of which is cheating during the exam, where the classroom environment is one of the external factors that plays a very important role where social interaction between students and teachers occurs. Therefore, it is important for teachers to optimize learning and practice and develop their competencies, one of which is pedagogical competence which has an important role and competencies that are absolutely owned by teachers. This research aims to produce a data mining model that can explain patterns or relationships in teacher pedagogical performance indicator data against student cheating rate data using a classification algorithm, namely the C4.5 decision tree. The results of the evaluation using confusion matrix on the cheating level model with a ratio of training data and testing data of 80:20 resulted in an Accuracy level of 100%, Precision 100%, Recall 100%, and F1-Score 100%. Meanwhile, the 50:50 ratio produces 88.89% Accuracy, 100% Precision, 80.77% Recall, and 89.36% F1-Score. In the teacher pedagogical performance model with a ratio of training data and testing data of 80:20 results in a level of Accuracy 100%, Precision 100%, Recall 1%, and F1-Score 89.36%.

Keywords - Confusion Matrix, Decision Tree C4.5, Academic fraud, Teacher pedagogics.