ABSTRACT

Data mining is a set of processes to explore the added value of information that has not known manually from a database. Data mining also take advantage of the experience or even mistakes in the past to enhance the quality of models and analysis results. One of them with learning capabilities possessed by data mining techniques called as classification. Classification is a learning task, mapping a new object into one class or category label on old objects that have been defined previously. This classification using one of the method of data mining algorithms, that is k-Nearest Neighborhood (k-NN). k-NN algorithm works based on the shortest distance between two objects to determine the value of k. The k-value is a parameter to determine the shortest distance between a new object to the old object. By using these data mining techniques then college can utilize student's academic data, that is performance index (IP) to predict the student's study periode. In this data mining application consists of the testing data and training data with the input of NIM and the k-value. The best k-values, depends on the number of used data. A large k-value to predict the student's study periode may not necessarily be the best k value with a high success rate and otherwise. So it is expected the result of this data mining applications can generate predictions of the student's study periode.

Keywords: Data mining, Classification, k-Nearest Neighborhood Algorithm