Abstract

This paper deals with a comparative study of the application of various data mining algorithms for the performance analysis of the learning model. The learning model for Mathematics is an integration of the various components used for effective learning of mathematics and assessment at the elementary level of education. Performance analysis is the analysis of the data stored by the learning model in the mathematical pathway database which is used to track the progress of each child. The analysis classifies the performance of a child into average, below average and above average categories. This aids in timely intervention. The performance analysis using Data Mining (DM) approach validates the accuracy and efficiency of the learning model leading to reliable and authentic predictions. Further any algorithm can be used for predictions of the mathematics learning trends as the performance of all techniques is comparable. This generic novel approach can be extended to other disciplines as well.

References

Data Mining Techniques for the performance Analysis of a Learning Model – A Case Study

- Tan Pang-Ning et. al. 2006. Introduction to Data Mining. Pearson Education.
- David Heckerman. 1995. A tutorial on learning with Bayesian Networks.
Index Terms

Computer Science  Data Mining

Keywords

Mathematical Pathway  Learning Model  Performance Analysis  Confusion Matrix  Accuracy