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Analytical Tracking of Teaching and Learning Performance Dashboard using Educational Mining Approach

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Abstract

Evaluating faculty teaching and learning performance is one of the most critical tasks within the institution and has become a top priority. Faculty teaching and learning performance must be evaluated for a number of purposes, including ensuring student learning and managing administrative decision-making. The scope of the paper focuses mainly on the evaluation of teaching and learning performance. The research presented in this paper aims to conduct the application of educational mining approach, such as visual analytics and clustering techniques on the Student-Self Reflection Tools (SSRT) evaluation survey collected through the evaluation process. In this paper, the proposed dashboard can be used as a comprehensive system for evaluating, reporting and analyzing data with a promising audience by utilizing the visual analytics platform in using the educational mining techniques. Based on different parameters, the faculty teaching practice and performance are evaluated and projected by building models. Furthermore, this paper also intends to perform a comparative analysis on clustering methods in educational data mining.

Keywords: Educational data mining, Visual analytics, Teaching practice, Teaching performance