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LITHUANIAN ACADEMY OF SCIENCES



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# Literature Review on Data Modelling Patterns and Techniques for Educational Data Assessment

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Educational data modelling can be used to develop theoretical frameworks in educational research, to create predictive models of student outcomes, or to establish guidelines for educational data collection and analysis. This poster presentation provides a review of the literature on data modelling patterns and techniques applied to the assessment of educational data. As education becomes increasingly reliant on data-driven decision making, we explore the scientific work that has contributed to the understanding of this important area. Our study reviews and summarises the key concepts, theories and methodologies in the existing literature. We present a range of data modelling models that have been discussed in academic research, as well as their application in predicting student achievement, identifying learning trends, and adapting educational practices. We also explore the scholarly debate on the importance of data quality assurance and pre-processing in maintaining the accuracy and reliability of educational data models. Following this literature review, we outline best practices and emerging trends in educational data modelling.