

## ABSTRACT

*This study aims to analyze the learning patterns of Second Year students in the Information Systems study program at Telkom University. Telkom University has a Center for e-Learning and Open Education (CeLOE) LMS which is a platform for student learning when having online class. However, student learning outcomes have not been maximized yet. This study uses process mining algorithms, specifically process cubes, to analyze event log data from CeLOE LMS. The formulation of the problem from this research itself includes student learning patterns, the best patterns in achieving learning outcomes in Accounting Systems and Financial Management and Business Process Engineering courses, and the performance of lecturers' teaching processes. The purpose of this study was to find out the activities of student learning patterns, find the best patterns in achieving learning outcomes, and evaluate the performance of the teaching process. This research has limitations on data obtained from the odd semesters of 2022/2023 and even semesters of 2021/2022 and focuses on Second Year students of Information Systems. The results of the study show that students need to carry out activities such as doing assignments, attending virtual meetings, working on quizzes, and accessing learning materials to achieve pass status, while students who do not pass only take action views on these activities. It is important for students to do assignments and quizzes well. In the Accounting Systems and Financial Management and Business Process Engineering courses, the best pattern of learning includes working on assignments and quizzes in a timely manner. This research provides benefits for science, research objects (Second Year students of Information Systems), and the writer himself. Through this research, it is hoped that it can provide benefits for scientific development in the fields of process mining and education, as well as contribute to improving the quality of learning and student learning outcomes.*

***Keywords - process mining, multidimensional analysis, learning path, learning management system, event log, process cube***