ABSTRACT

Analysis and Application of the Mining Process to Identify Student Learning Behavior on the Use of E-Learning during the Covid-19 Pandemic (Case study: SMK Telkom Malang)

SMK Telkom Malang is a vocational high school in the field of Technology and Information Technology that applies technological advances and developments in its distance learning system. E-learning is one of the learning media supported by computer and internet technology, which contains learning content. Student learning behavior in machine learning or E-Learning has a strong relationship in its use. The higher the quality of the application of learning in machine learning or E-Learning , the higher the achievement in obtaining data on student learning behavior in the use of e-learning recorded in the event log. This research uses tools Disco and ProM Heuristic Miner. Heuristic Miner is used because it is most suitable for handling process mining on event logs from Learning Management System because heuristic miners can express event logs well and reveal main events recorded in event logs and are able to handle data that has noise. The use of Petri Net in ProM tools helps in analyzing the process model to provide an overview of student learning behavior towards e-learning the actuate results of the heuristic miner can model the event log into the process model well, judging from the average fitness of the RPL majors, it shows a value of 0.970. Meanwhile, the average value fitness for TKJ subjects shows a value of 0.901. This research is expected to be used as a benchmark to identify student learning behavior towards E-Learning learning during the pandemic which has a significant impact on the student learning system.

Keywords: *Process Mining, Disco tools, ProM tools, E-Learning, Event Log*