Abstract

In the Multiple Choice Question test, often the question arises whether a sequence in answering the question posed in an online evaluation test (online test) is important, or whether the order in answering the question should be made permanently and does not allow participants to repeat the test questions has been answered or whether participants should be given freedom in determining the flow in answering questions. In addition, we also sometimes difficult to determine whether the results obtained in the online test reflects the actual ability of the participants.

In this thesis, one of the Process Mining's techniques, Process Discovery, that is implemented on an online test using Heuristics Miner algorithm and performed analysis to determine the true capabilities of the test participants, the effects of navigational models on the performance of test participants, the effects of questions chosen by participants on their ability and most patterns that has been chosen by the participants test. The data used is an online test's log data from TOEFL Preparation tests on e-learning used by one of English language institute.

The results of this study are that the navigation model gives a significant influence on the performance of test participants, the strength and weakness abilities of participants can be known so that later will allow them to focus more on where they have to improve its capabilities, as well as patterns of answering questions that has been chosen by the participants can known so that later can become an evaluation for the test organizers in the test preparation.

Keywords: *Process Mining, Process Discovery, online test, log data, Heuristics Miner.*