Personalized Adaptive E-Learning System - Mitigate the Risk of Rashomon Effect Occurrence in Higher Education

BMTN Rathnayaka¹ and Choolangika Mihiri Sirisuriya²

Department of Information Technology,

General Sir John Kotelawala Defence University of Sri Lanka

 $^{\it l}$ rathnayakanawanjanathisaru@gmail.com

²mihiri@kdu.ac.lk

ABSTRACT

Personalized adaptive E-learning system means a learning system which is based on learner's feedback, his or her multiple intelligence and learning style. In traditional higher education when conducting lectures there is a risk of Rashomon effect occurrence. Rashomon effect can be simply defined as how a group of people react to the same incident in a different way. In education that definition can be turned into how a group of people react to same lecture material in a different way. The problem is how to mitigate the occurrence of this risk. The researcher's proposed solution is an adaptive learning system which is mainly focused on mitigating the risks of Rashomon effect in learning process and improve learners' success of learning based on personalization information like learning style, cognitive style or learning achievements. This innovative adaptive learning method is proposed based on considering two major sources of personalization information which are; learning behavior and personal learning style. To find out the significant learning styles of the learner, an assigned test employ. When adjusting the learning materials have to consider learning behavior of the learners, the interactions and learning results of learners have to recorded and analyzed using machine learning techniques. And use Bayesian modelling to model a student's ability. Based on this information, propose as the solution by developing an adaptive e-learning system.

Keywords: Personalization, Adaptive E-Learning, Rashomon effect, Higher Education, Bayesian prediction modelling