

Abstract

E-learning is a learning system that can overcome the problem of space and time constraints. However, the learning content provided on e-learning is "one-size fits all" so it tends to be the same for every learner who uses it regardless of the characteristics of each learner. It affects the level of acceptability and learner satisfaction with the content delivered on e-learning. Ubiquitous learning is the evolution of e-learning with the concept of learning that allows users to be able to learn in the right place, at the right time, on the right device, the content learned is also right, and delivered to the right user.

Characteristics of learner is an important parameter in the delivery of material content in harmony with the concept of learning u-learning is the right learning content and delivered to the right user. Therefore, this study determines the attributes used on learner characteristics to determine the adaptive content for each learner. Then, the system is built to classify the learner characteristics based on the activities performed by the learner when using u-learning. Classification will be done using Rule-based Fuzzy Logic because every learner in online learning has ambiguous and uncertain information. The classification results of the characteristics of each learner are used for the development and delivery of adaptive content. The experiment was followed by a number of 63 students in the knowlege domain of the data structure. Characteristics of the learner used include prior knowledge, learning goals, learning achievement, willingness degree, and patience degree. The results of the study found that the students who feel helpful from the overall content of the adaptive content were no more than half the total number of students who followed the study as learners on the system, ie only 24 from 63 students.

Keywords: Characteristics of learner, adaptive content, Rule-based Fuzzy Logic
