Abstract

Computerized Adaptive Test (CAT) is a computer-based test framework which has ability to customize questions items given to the learner based on their estimated ability. In this research, the CAT system is build using Item Response Theory (IRT) techniques to develop an adaptive system based on question item's difficulty level and students' ability level. Moreover, to figure out the effectiveness of this CAT system, we do some experiments by comparing the average post-test score of students in CAT system and conventional system. The experiments result reveals that the average post-test score of students in the CAT system is much higher than the average post-test score of students in traditional test system.

Index Terms

Computer Science
Information Systems
Keywords

Computerized Adaptive Test  Item Response Theory  students ability level
maximum likelihood estimation