

Zhao Jun. (2024). Effect of Adaptive Learning System on Students' Academic Achievements in Pharmaceutical Management and Regulations Course for Licensed Pharmacists Qualification Examination. Master of Education (Curriculum and Instruction). Advisors: Assoc. Prof. Dr. Suwana Juithong, Dr. Phithack Nilnopkoon.

ABSTRACT

This experimental research aimed to 1) compare students' academic achievements in Pharmaceutical Management and Regulations Course before and after learning through adaptive learning system, 2) compare students' academic achievements in pharmaceutical management and regulations course after learning through adaptive learning system with the criterion set at 70 percent, and 3) assess the student's satisfaction toward adaptive learning system. The sample of this study was a class of 30 students of the Beijing Lianmi, the People's Republic of China, Education and Training Institute for licensed pharmacists' qualification examination derived from cluster random sampling method. The research instruments were 1) seven lesson plans using adaptive learning system, 2) an academic achievements test with the reliability of .72, and 3) a students' satisfaction questionnaire with the reliability of .92. The statistics used for data analysis were the mean, standard deviation, t-test for one sample and t-test for dependent samples.

The results of the study were as follows: 1) After using the adaptive learning system, students' academic achievements ($M = 22.33$, $SD = 4.42$) were significantly higher than before ($M = 15.37$, $SD = 4.90$) with statistical significance at .05; 2) After learning through an adaptive learning system, the academic achievements of students were higher than the 70% standard, with statistical significance at .05 ($M = 22.33$, $SD = 4.42$, $t = 27.72$, $p < .05$); And 3) after adopting an adaptive learning system, students showed a high level of satisfaction ($M = 4.02$, $SD = .78$).

Knowledge gained from this study is the adaptive learning system which includes online and face-to-face teaching activities and consists of 5 steps: 1) advance evaluation. 2) personalized learning, 3) targeted exercises, 4) comprehensive evaluation 5) special guidance. The second step is the most important for providing students' opportunities to improve their learnings effectively. This teaching step contains online feedback and guidance that can foster students' learning autonomously. This learning management process aims to improve students' academic achievements, stimulates students' interest in learning, and serves personalized learning needs.

Keywords: Adaptive Learning System, Academic Achievements, Pharmaceutical Management and Regulations Course, Licensed Pharmacists Qualification