Abstract

This study examines the effect of web-based intelligent tutoring systems (ITS) on academic achievement and retention. The ITS developed by Arıcı and Karacı (2013) was adapted for instruction on electronic spreadsheet software, and an experimental study was conducted with 80 undergraduate students. The experimental design involved quantitative research using a pre- and post-tests with a control group. The control and experimental groups consisted of 42 and 38 students, respectively. To measure academic achievement and retention, the researchers developed an achievement test that consisted of 27 questions. After a four-week implementation period, students that used the ITS showed higher levels of academic achievement than the control group. However, the ITS did not significantly influence retention levels.


**Index Terms**

Computer Science

Information Systems

**Keywords**
Intelligent tutoring system, internet, student model, achievement, retention.