Naser et al (2011) studied the effects of an automated tutoring system on human-computer interaction. Unlike most systems which require an instructor to input problems and solutions, this tutoring system generates the problems and solutions through a set of algorithms. They call it the Linear Programming Intelligent Tutoring System (LP-ITS). As students move through the instructional modules, the computer guides them to the correct solution based on their actions.

During the LP-ITS field test, the authors were concerned with student and teacher perceptions. They aimed for a user-friendly interface, prompt computer responses, appropriate hint and error messages, and successful performance tracking. The only requirement on the teacher’s end was to enter the classification of problems and level of difficulty. Then, they would be able to rely on the LP-ITS to monitor the students while they were solving the problem and provide information about student performance at any time.

Overall, the authors saw a positive attitude towards the system in their evaluation. Future releases will incorporate new features and updates, the authors said. They noted that they were evaluating suggestions by students and teachers, but they didn’t specifically mention what those suggestions were.

The LP-ITS tutoring system is unique because it does require some initial set-up from the instructor. It also caters to individual needs by “determining the weak points of the student and intelligently guiding the student towards the correct solution” (2011, 68). This system represents a successful model of human-computer interaction: a simple interface, appropriate computer
processing, and usability were considered extremely important factors during the development phase.

Reference