Chapter XII

Design and Evaluation of an Internet-Based Personalized Instructional System for Social Psychology

Erica Davis Blann*
TIAA-CREF, USA

Donald A. Hantula
Temple University, USA

Abstract

Two iterations of an Internet-based Personalized System of Instruction (PSI) course are described. The course was designed to capitalize on the unique advantages of the PSI system while using the Internet to overcome some of its noted administrative drawbacks. Unlike previous computer-based PSI courses, the asynchronous nature of the Internet and the automated features built into Blackboard made it possible for students to attend lectures, to take quizzes and examinations, and to communicate with the instructor and other class members at any time from any...
networked computer. This reduced the labor intensiveness previously associated with PSI while training students to learn through distance education. The combination of PSI and the Internet produced an effective instructional strategy, reviving Keller’s (1968) original PSI model while setting the stage both for more advanced PSI research and Internet-based instruction.

Background

In this chapter, we examine the merger of a long-established instructional method, Fred Keller’s Personalized System of Instruction (PSI), with a modern technological medium, the Internet, to create a more flexible learning environment for university students. Keller and colleagues conducted the first PSI class in 1964 at the University of Brasilia. Five features distinguished it from a traditional lecture-based course: (a) students were permitted to move through the course at their own pace, (b) students were required to master each unit before proceeding to the next one, (c) lectures were used as vehicles for motivation rather than as sources of necessary information, (d) stress was placed on the written word in teacher-student communication, and (e) proctors were used to provide testing, feedback, tutoring, and personalized interaction with students (Keller, 1968).

By the late 1970s, PSI’s effectiveness in a variety of classroom and training settings was evident. Results from empirical studies, the establishment of the Center for Personalized Instruction at Georgetown University in 1973, the PSI Newsletter, and the Journal of Personalized Instruction led Keller and others to believe that PSI would thrive, thus reducing use of the traditional lecture-based method. However, this was not the case. Multiple problems inherent within the PSI system discouraged instructors from employing it within their courses. Specifically, both instructors and students found the course to be too labor intensive (Sherman, 1974). Unlike traditional lecture-based courses with comprehensive examinations, PSI students were required to maintain a steady rate of studying in order to achieve mastery on the frequent quizzes. Consequently, there were a high number of student withdrawals in PSI courses. In addition, because students were permitted to self-pace, many procrastinated and were not able to complete the course (Robin, 1976). Instructors and proctors struggled with the amount of work necessary to personalize instruction for each student. For example, the frequent creation, distribution, and grading
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