Chapter 11

Online Student Practice Quizzes and a Database Application to Generate Them

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Online practice quizzes are a popular way for students to test their readiness for a classroom exam. The authors have developed a quiz database application that stores potential test questions and exports selected subsets of questions to a web-based Javascript program. Feedback from students has been very positive. Students indicate that the question-feedback cycle helps them learn the material and prepare for the real exam. This paper will discuss how the database application works, explain how educators can obtain and use the application for use in their own classes, and provide general guidance for constructing quiz questions that make the quiz a positive learning experience.

INTRODUCTION

With the growth of the Internet, educators have begun using on-line practice quizzes to help students prepare for in-class exams (Brooking and Smith,). Online practice quizzes have the advantages of allowing students to access the practice quiz at
any time, allowing students to progress at their own pace, providing instant feedback, and allowing information to be constantly updated (Ng and Gramoll, 1999). Students using online quizzes report that they appreciate the immediate feedback on their performance as well as the “anytime/anyplace” capability (Crepeau, 1998).

Javascript is a simple non-compiled programming language for webpages (Reynolds, 1996) that is used in many Internet applications, including creating online quizzes (Aylor, 1998). Because Javascript is non-compiled, the questions and answers are not secured. Any user who knows how to view the source code of a webpage can see all the questions and the answers. Therefore, Javascript is not an acceptable technology for graded exams. But for the purpose of a non-graded practice quiz, Javascript is a simple way to build practice quizzes so students can gauge their knowledge and prepare for an exam.

**TAKING THE QUIZ**

When students start the practice quiz program they will first see a welcome screen telling them what to expect. When they click on the Start button they will then begin seeing questions as shown in Figure 1. The program is set up to select a random group of questions for presentation from a larger universe of possible questions. This encourages students to take the practice quiz several times in a “drill-and-practice” approach.

Students can click on any of the three answers. Their selection will lead them either to a “Wrong Answer” screen or a “Correct Answer” screen as shown in Figure 2. In either case they will be told what the correct answer is and why.

*Figure 1. Sample question*
Kathryn Hashimoto and Jean-marc Lehu (2006). *Teaching and Learning with Virtual Teams* (pp. 221-245).
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