



Questionmark Case Study

Use of built-in images improves tests for students of diagnostic medical imaging

Background

Wilbur Wright College is part of the City Colleges of Chicago system. The community college has 6,500 regular credit students and 6,000 adult education students. Students in its Diagnostic Medical Imaging department can enroll in an associate's degree program for radiography or take an advanced certificate in magnetic resonance imaging (MRI).

The 100 students in these programs take national certification tests in order to be certified in radiography or MRI techniques. Because the exams were going to be administered online, Department Chairman Dennis M. King wanted to make sure his students were comfortable in an online testing environment. He also wanted to solve a problem with his department's testing method.

Logistical Challenges

King formerly administered paper-and-pencil tests in which students answered questions about films in view boxes in the classroom. That meant each student had to walk up to the view box one at a time. King needed one view box for each question that was based on a film, which meant a limited number of films per test. When he had multiple view boxes, he also had to monitor the students to ensure test security. Now it is easy to incorporate images into tests, sometimes as many as 20-25. King also uses the drop-down feature to ask several multiple-choice questions about the same image.

Question Management

Questions on the radiography tests come in five topic areas: radiation physics; radiation protection and radiobiology; radiographic anatomy and positioning; patient care and nursing; and radiographic technique. Some

exams cover only one topic area and the exit exam (a 250-question final exam) has questions from all five areas. So the department uses the meta-tagging feature to tag each question for each topic area, which allows them to randomly select questions from the right topics. King also shuffles the questions in tests, which helps to prevent cheating.

Survey Feedback

King also uses Perception to conduct surveys. After each test, students complete a survey that asks whether they felt the test was fair, difficult, or had bad questions (or questions where the "correct" answer is actually wrong). The survey, which also asks students for general comments, helps King monitor both student satisfaction and question performance. He also gathers student feedback on their clinical work, which takes place at area hospitals.

Better Exam Results

King says that the students in the radiography and MRI programs have high pass rates on their certification exams, and he attributes that to the quality of instruction and to online testing. "The ability to use images in Perception has been a tremendous advantage for us, and I get rave reviews," he says. "Students say they enjoy taking tests and the questions that involve images."

More information

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