

## Creating Reliable High-stakes Exams at the University of Connecticut Health Center

Replicating the functions of a microscope within Questionmark tests

CHC Academic Computing Specialist Joshua Simon

### Background

Founded in 1961, the University of Connecticut Health Center (UHC) is composed of the School of Medicine, School of Dental Medicine, John Dempsey Hospital, the UConn Medical Group and UConn Health Partners and University Dentists. The Health Center provides health care education in an environment of exemplary patient care, research and public service. The Health Center's 206-acre campus is in the historic community of Farmington. With approximately 5,000 employees, the Health Center is Connecticut's 16th largest employer.

### High-Stakes Assessments

UHC uses Questionmark™ Perception™ to create and deliver high-stakes exams to medical and dental students as well as lower-stakes tests and faculty evaluations. Questionmark Secure is used for delivering 10 to 15 high-stakes exams every semester, each consisting of up to 150 questions. First and second year students take exams in three to four courses a semester. Courses such as Organ systems 1, 2, 3 and Human Biology all require students to take a four to five-hour comprehensive assessment that can include multiple choice, drop down, essay, multi-part essays.

### Microscopic Precision

For histology testing, UHC Academic Computing Specialist Joshua Simon integrated a third-party Flash-based web application that can replicate the functions of a microscope into Perception. "Faculty wanted to have students look at a slide and answer questions based on what they saw," explains Simon. To answer questions based on the slide, students click on a microscope icon in the test and are able to zoom in and out and move the slide from side to side. The images are actual glass slides, some of which are scanned up to 40x. The Flash file is then embedded into a multiple choice question inside the Questionmark Perception exam. "It's really kind of awesome," Simon adds. "It's as clear as if they were actually sitting in front of a microscope."

### Authoring and Reporting

High-stakes assessments require questions to be reliable and defensible. Questions are created by faculty members who email or drop off their questions to an education support office, where they are uploaded to Perception Authoring Manager. After each exam, Perception's Item Analysis Report is used to help determine the quality of each question. A faculty committee reviews the reports, looking for faulty questions. They then decide whether to improve a question or simply drop the question and give students the credit for it. Simon has used the Perception data to create his own custom reports that allow him to easily sort data by discriminating value.

### Faculty Evaluation

Students must evaluate the faculty member (s) who lectures each week. "Students authenticate through a custom website, which logs them into Perception and lets them evaluate their faculty," Simon explains. The survey system imports the necessary data from the university's learning management system and sends out emails, tallies up the surveys and creates reports.

### Looking Ahead

UHC has successfully customized Questionmark Perception to meet their particular needs. "We've come up with a system that works really well for us and we're happy with our workflow," Simon comments. "We're going to make the switch to Perception version 5—but other than that I don't think we'll be changing much of what we're already doing."

### More information

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