4 Signs of a Tech-Savvy Medical School

Medical schools differ significantly in they way they use technology to teach students, experts say.

Signs of a tech-savvy medical school include realistic simulations and frequent use of technology. (PeopleImages.com/ Getty Images)

A medical student sits in anatomy class, tracing the path of a muscle from tendon to tendon on a tablet. She taps and rotates the image, following the display as layers of the virtual body reveal how humans move.

That's the kind of technology that medical students get to use to find out how

bodies are put together before they confront real people facing real medical problems.

Experts say the increasing use of technology at medical schools means that prospective students should evaluate each school's technology offerings before deciding where to attend.

Here are four ways to tell whether a medical school uses the latest classroom technology.

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1. Quality and variety of simulations: Some medical schools ease the transition from classroom learning to clinical training by providing students with an abundance of simulations of medical crises, where students are challenged to make split-second treatment decisions.

Medical school simulations frequently require students to interact with mannequins that represent patients and practice performing procedures they will do as doctors, such as physical examinations.

Simulations provide compelling lessons, says Dr. Thomas Riles, associate dean for medical education and technology at the School of Medicine at New York University and executive director of its Web Initiative for Surgical Education Modules, an online educational program that teaches surgery skills at more than 120 medical schools.

"We can simulate anything," he says. "We can simulate someone having a baby or a heart attack."

Riles says that much has changed since he went to medical school, because back then a student's first attempt at a procedure might be with a patient. But now, that student-patient interaction typically happens after the student has

received extensive practice in simulations. "Just going straight from textbook to patient doesn't make a lot of sense," he says.

Tanmay Gokhale, an M.D.-Ph.D. student at the Duke University School of Medicine, says he found simulations useful preparation for clinical training, because it gave him a chance to practice performing medical procedures on a mannequin before he did the procedure on a human being – which gave him the confidence necessary to cope with the emotions that go along with having someone's life at stake.

Gokhale says the mannequins in his simulations looked and sounded like people would in a clinical environment.

"The mannequin can blink and responds to the medications you give it," he says.

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2. Frequent technology use: Some medical schools have technology that they use sparingly, Gokhale says, so it is worth investigating what technology, if any, is used on a regular basis during classes. "You want to go somewhere that has technology and is going to use it and where the faculty is excited to use it," he says.

Some schools have fabulous laboratory facilities students rarely get to enter that are reserved primarily for faculty and residents, says Niall Johnston, president of the U.S. division of the Dublin-based company 3D4 Medical, which sells an anatomy education platform with 3-D visuals. He says it is important to distinguish between the resources available and the resources that are used on a daily basis.

Alan Detton, vice president of anatomical education for the company, says a

forward-thinking school that uses technology to its maximum potential will have students regularly use iPads or tablets in class to access digital resources.

Johnston says another good sign is when a school integrates imaging technology from radiology into its anatomy courses, adding the best way to tell how important technology is at a particular school is to ask its students.

3. Online video lessons: Short online videos that provide bite-sized pieces of information can make complex academic subjects easier to digest, Gokhale says. "The technology is allowing students to engage with content in the time and place that works best for them," he says.

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4. Digital access to medical research findings: Matthew Sweet, a second-year student at the Wayne State University School of Medicinen Michigan, says doing evidence-based medicine informed by the latest medical research is easier when summaries of that research are readily accessible on a smartphone or laptop.

Sweet says that without technology resources that aggregate medical research, "it's really difficult to keep up with current recommendations" on best practices and promising treatments. New medical decision-making programs such as mobile phone app UpToDate are essential, he says, because they quickly identify the pros and cons of various treatment options and facilitate smart clinical decisions.

"Everything is data-driven, and having very fast access to the most recent outcome data is very important," he says.

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