LEAD THE WAY IN INTERACTIVE ANATOMY INSTRUCTION

Gale Interactive: Human Anatomy: Learn how this university department has improved student success by incorporating 3D interactive tools into instruction and labs.

BACKGROUND
The University of Iowa leads the way in research and innovation as one of the nation’s premier public research institutions. The university’s Carver College of Medicine is one of the largest and most acclaimed medical centers in the country. As a faculty member in the department of anatomy and cell biology, Assistant Professor Darren Hoffmann has worked closely with students in every area of the health profession. He has been instrumental in moving instruction forward and meeting the needs of students by developing a new approach to instruction with the 3D interactive learning aid, Gale Interactive: Human Anatomy.

ABOUT THE CHALLENGE
RESPONDING TO THE WAY STUDENTS LEARN
For academic librarians, the decision to purchase any new database or resource is determined primarily by its potential to effectively support student success. Whether in full lecture halls or small classes, Hoffmann’s students expressed the same concerns: They needed help visualizing essential concepts and wanted to interact more with the models. Hoffmann explains, “As a professor, you have to figure out how to cross the gap between what you see in your mind and what you want the students to see. They need to see it in a way that makes sense to them.”

Before using Gale Interactive: Human Anatomy, Hoffmann purchased an app to create videos for each of his lectures. This was very time consuming and had limitations for adequately preparing students for labs. Students need a resource that gives them a clear and total understanding of the human body as well as how structures relate to one another. Hoffmann discovered that most videos and apps available to professors and students are not developed for the purpose of instruction. They’re more passive learning tools that provide general anatomical information. He further explains, “When you put a ton of objects in front of someone, they don’t know what to look at. To me, that’s really the magic piece of Gale Interactive. It’s preconstructed in the sense that it’s oriented around a specific region or concept, but it’s completely free play for the students when they start going into it.”

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Iowa City, IA
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Gale Interactive: Human Anatomy lets students explore the human body progressively, in a way that makes sense, and with guided instruction. This interactive tool is designed to extend past where traditional resources and lab materials simply cannot go. Created with both students and faculty in mind, it can be used for in-classroom demonstrations or to help with homework and research assignments. The interactive aspect allows students to dive deeper into complex concepts with tools that allow them to zoom, rotate, and explore the human body just as they would in real life. Hoffmann adds, “This is not a replacement for dissection. It makes dissection better.”

What’s more, Gale Interactive: Human Anatomy delivers guided lessons that are aligned with course curriculum. From a professor’s point of view, the ability to have a lecture be “plug and play” is a game changer. “It’s a lot easier to utilize pre-done, sequenced presentations,” says Hoffmann. “I have a library of 125 sessions that I can use. This ends up being a time-saving measure and it lets me deliver something that feels like a video but that students can reach in and manipulate.” Users can grab an object on the screen and move it to see what’s behind the object they revealed.

The quizzes and guided instruction available through Gale Interactive is another benefit. “Guidance: That’s the most important, unique feature of Gale Interactive: Human Anatomy. That’s what keeps me coming back. I can trust my students to go there on their own and they can figure it out. The structure of the interface and the website is very clear, it’s very obvious what you’re going to see when you go to click on a session.” Physical models are available to students in a limited quantity, which makes at-home instruction easier and more feasible. For Hoffmann, the best scenario for students in an anatomy course would be to blend live dissection with a really good 3D model, which is what Gale Interactive: Human Anatomy makes possible.

The results
Fostering an active learning environment

Hoffmann has found that Gale Interactive: Human Anatomy gives students the right degree of freedom and control to be most effective for them, which has been reflected in their overall performance. “Using 3D anatomy products to prepare for cadaver dissections resulted in dissections being completed in the same time or quicker. This subsequently led to improved exam performance. On comprehensive exams, scores went up for those who used these 3D anatomy tools as pre-lab prep,” reports Hoffmann. Most importantly, feedback from students has been overwhelmingly positive. “They want more! They want the same type of resource for other subjects. I know that Gale Interactive is making a difference. It’s giving people a way to actually see what’s real in a way that’s stylized and almost hyper-real.”

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