

Universitat Oberta de  
Catalunya Pioneers  
Anatomy Education  
Exclusively Online



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## How Primal connects, educates, and motivates anatomy students in remote learning environments

The Universitat Oberta de Catalunya (UOC) knows all about the importance of choosing the right digital resources to support remote learning. Created in Barcelona in 1994, it is the world's first university to run exclusively online.

No surprise then that in the early days of the COVID-19 pandemic, UOC was already a couple of steps ahead in the global scramble to take anatomy lectures and classes online. "As everyone else, both teaching stuff and students had some problems at the, and we have had to adapt the dynamics. But yes, it's been much easier than in other universities, for sure," says Raquel Viejo Sobera, a professor in UOC's Faculty of Health Sciences.

Viejo is a researcher at the university and also teaches neuropsychology and neuroscience across psychology and speech therapy bachelor's degrees, and master's degree in neuropsychology. Àgueda Mercadal is UOC's subject Librarian For Health Sciences And Psychology and provides support to faculty in choosing and managing learning resources. She got in touch with Primal when Viejo and her colleagues asked for an alternative to their existing digital anatomy teaching tool, which wasn't up to scratch.

### A Quality Product That's Easy to Share

UOC first came to Primal as it was struggling to find a virtual anatomy resource of high enough quality. "We had another tool before, but it wasn't working very well," says Viejo.

Problems included difficulties with downloading images and doubts about the usefulness of the content. Some students also found it so tricky to access this resource that they gave up trying to access it at all. "We had this tool that was useful in principle. But if they don't use it, then it's not useful actually," says Viejo.

UOC chose Primal as it found the product inviting and easy to teach and learn from. "One of the big reasons for my recommendation was also the easy integration of Primal Pictures into our system. And it solved the problem of how to share content between professors and students," says Mercadal.

Other big motivators included being able to add specialty head and neck, and speech language pathology (SLP) content to their 3D Real-time and 3D Atlas package. There was also the attraction of the Spanish auto-translate option for all the supporting text explaining structure, function, and clinical relevance.

### Demonstrating Anatomy Without a Physical Cadaver or Model

As all teaching is undertaken in a remote, digital learning environment, Primal gives UOC ways to demonstrate anatomical structure, function, and relationships without the need for a physical lab or model. "It's very difficult for us to show anatomy to the students because we don't have models. And it's not the same using a video or using a book to show the structures and layers," says Viejo.

With Primal, students have a detailed and accurate 3D model that they can easily manipulate online to see every structure clearly, and from different angles and perspectives. "We use it for that purpose mainly so that they have an example of the inside of the brain and can add layers of anatomy or take them off and play with the model by themselves" says Viejo.

### Easy Ways to Create Prepared Teaching Areas

Primal also lets UOC guide the learning of its students despite not being in direct contact with them in a face-to-face classroom setting. "You can prepare a visualization for your students and they can access directly what you have prepared for them. Also, you can tell them what to look for and how to use this visualization to learn about the structure of different brain areas, which is very, very useful," says Viejo.

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This is a new approach for her, but it is already helping students focus on their learning with no distractions from other content. It also means Viejo can serve up learning to students in manageable portions. “It’s so they’re not disorientated, because it’s really good to have a product with so much information, but sometimes, too much information can be overwhelming,” she says.

### **Assignments, Assessments, and Student Engagement**

As well as being 100% online, UOC also has no set times for attending classes. Indeed, the university’s digital and asynchronous aspects are why most students choose UOC, as this fits well with their other commitments, such as those of a family or job. The challenge for faculty, of course, is keeping students on track with their learning when they can show up at any time they like. UOC’s solution? “Having a lot of assignments during the semester,” says Viejo.

This includes using Primal’s 3D Atlas, 3D Real-time, Anatomy and Physiology, and specialty content for continuous assessment, whereby students have tasks to develop over two to three weeks, which they then send back to the instructor to be graded. “The way to keep them engaged is through the classroom forum, where the teachers keep asking questions about the materials and propose complementary readings, so that we know they’re engaged,” says Viejo.

### **Next Steps**

UOC’s next move is a trial of Primal’s Disease and Conditions title, which depicts normal anatomy alongside that of diseases, injuries, and other medical conditions.

Right now, however, UOC’s anatomy instructors who have direct contact with students in online classes and forums are more than happy with Primal. In fact, they’re so enthusiastic they tweet about it.

Similarly, Viejo says feedback from students about using Primal for assignments has been good. “I think the students are happy,” she says. “I heard some good comments and I haven’t heard any complaints, which for students is very good!”



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