CAD/CAM can be an incredible teaching tool

By Brendan Dag, DTI

Dr. Gary Hack is an associate professor at the University of Maryland School of Dentistry, where he teaches in the Department of Advanced Oral Sciences and Therapeutics. In this interview, he outlines how he integrated dental CAD/CAM technology into his teaching methods and how his students have responded to this.

Dr. Hack, you've been in dental education for more than three decades. When did you first introduce CAD/CAM tools into your teaching?

Dr. Gary Hack

When I was a student back in the 1970s, with his permission, I arranged for a gift from Sirona of ten CAD/CAM devices, and when working under a light, just as we were still making impressions and technology.

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In 2006, the University of Maryland School of Dentistry moved into a new building. Our dean at that time was a visionary. He wanted to teach the students' passion for computers and technology.

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Let me give you a little background. In the early 2000s, there were some representatives from Sirona who came to conduct a demonstration at our dental school. At that time, they had the CEREC Red Cam. I had been teaching in the crown and bridge course for many years at that point, but when I saw this technology firsthand, I was overwhelmed. I knew that this was the future of dentistry. I knew that this would introduce an incredible level of excitement for the dental students. And I knew about the students' passion for computers and technology.

In my opinion, all dental schools are, to some degree, struggling with this decision. Clearly, they know that they have to do this, that it is incumbent on them to teach their students now that they have to integrate it into CBCT imaging and surgical guide printing. I think the current students are getting into dentistry at one of the most exciting times in dental history. I'm passionate about this and want Maryland to be at the forefront of dentistry.

Dr. Hack has employed dental CAD/CAM technology in the classroom since 2006.

Is the learning curve greater for students now that they have to learn these digital technologies? There really is no learning curve. These students pick it up within minutes, to a point where they understand it better than I do. They grew up with computers and are naturally drawn to this technology. They are passionate about it and are excited to bring it into their future dental practices.

Many of our graduates who apply for jobs working under older, more experienced dentists are also already ahead of the rest of the pack as a result of their familiarity with digital dentistry. The older dentists might be a little nervous about integrating CAD/CAM technology into their dental practices, but realize that CAD/CAM is nonetheless the future of dentistry.

Do you think that the price of investing in CAD/CAM tools and technologies can be prohibitive? Let me begin with the private practice. The return on investment is clear. If you buy this technology, it can often pay for itself within a few years as a result of savings. If you mill in-house or digitally scan at your practice and scan in a single unit rather than fabricating it in a dental laboratory for fabrication, you can often pay for itself in supplementing this classroom teaching.

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