



## Next Generation Learning @ Work

by the Dental Channel Limited

## Taking the experts to the Dentist

*Dental Channel enhanced their learner's experience by bringing live CPD sessions to the desktop and won this year's synchronous e-learning award.*

*Dental professionals have the convenience of interactive lectures at work and at home on the latest innovation and best practice. They and their staff like it, it gives a better view of procedures and it saves time and money. Find out how it is done and how everyone wins.*

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## Business Challenge

The pace and change and innovation in dentistry is high and increasing. Dentists and dental care professionals must keep abreast with developments in dentistry. Dentists are required to complete 15 hours of verifiable CPD each calendar year, 10 hours for others in the profession, and an additional 35 hours of general CPD.

It is the legal and ethical duty of dental professionals to keep up-to-date with Best Practice so that they may deliver optimum care to patients. Mandatory Continuing Professional Development (CPD) for dentists was introduced in 2000 and for dental care professionals on 1<sup>st</sup> August 2008. E-learning is an important part of an individual's personal development portfolio – it allows them to study at a time that is more convenient to busy work schedules whilst establishing a record for their CPD.

Dental professionals can already pay to access a wealth of learning material, online and on CD. With such a wide range of products and a user base of 7,000 dental professionals; not just dentists but hygienists, therapists, nurses and technicians as well, what was missing?

Traditionally practitioners attended conventional lectures – they left their normal environment, mixed with colleagues, listened to a topical presentation and interacted with the expert and their peers. Dentists value the informal chat during the coffee break; referred to by many conference attendees of all disciplines as the most useful part of the day!

However, this was not an efficient use of time or resources for either participants or organisers. A conventional programme had significant costs in terms of time and travel, and whilst it may be a welcome break from work is often not the most effective method of CPD. It also impacts on the carbon footprint of the UK. Reducing time and travel away from the practice is therefore beneficial for the practice, the individual and the wider community.

The existing e-learning offering was popular with dentists as it addressed many of these issues. However, much of the current offering was designed for self-study rather than group study, losing the immediacy of personal contact which is so important to many learners who want feedback and help when they need it.

Meeting other learners is still important, particularly as a large proportion of dentists work on their own or in small groups. So Dental Channel brought the benefits of group study directly to the dentist's laptops through a programme of live online conferences and lectures. It builds on the range of critically

acclaimed e-learning courses available on CD-ROMs since 1999. It delivers many of the benefits of traditional lectures without the drawbacks of time and cost. The Dental Channel felt that the increasing adoption of domestic broadband would make this feasible for most dental practices so a live web conferencing service was piloted in March 2006.

## The Learning Solution

### Live conference sessions

The initial pilot in March 2006 gave very positive results and comments. A monthly live programme was delivered to dentists from July 2006, who paid for this directly themselves. The live service has been integrated with the Dental Channel's Learning Management System, on-demand versions and a robust verification mechanism for mandatory CPD requirements. Sessions are delivered using WebEx; regarded as one of the product leaders for web conferencing services. Their *Training Center* is specifically designed to deliver virtual training sessions.

The product is very easy to use and trainers can quickly convert from classroom or conference delivery to live web conferencing. Presentations can be prepared in PowerPoint with the addition of image, audio and video files being added to meet the design of the classroom session. As with all synchronous learning the collaboration between presenters and learners and between learners and learners is an essential feature of the interaction. All learners value conversation with other learners at synchronous events. WebEx has a chat facility with options for private and public communication. Individual learners can send messages to each other, send broadcast messages and send private messages to the presenter/tutor. There is a questions and answers panel in which learners can post questions; everyone can see the question and the subsequent answer.

Sessions can be double-headed with one presenter concentrating on visual display and what is being said; the second presenter providing support to the questions and answers panel and answering individual queries from learners.

WebEx has polling for audio questions, feedback icons and supports multiple web cams. For example both presenters could appear on the screen or a presenter and a learner who is willing to share video with the rest of the audience. Dental Channel implemented the Integrated Voice-over-IP, which allows participants to listen through their broadband connection rather than via a telephone line. It reduces the cost to the learner and since many participate from home in the evening their normal telephone lines remain open for others to use.

It was important to simplify the experience for dental professionals who do not want to be bothered thinking about technical considerations. The WebEx

service can be figured as a temporary file installation rather than with an Activex or Java installation. This simplifies installation in hospitals or other organisations where firewalls or IT policy might inhibit the use of active plug-ins. WebEx tracks the learners' participation and provides a report to Dental Channel, which can be used by individual learners for CPD verification. All features of a session can be recorded automatically and the system generates a table of contents, the chat window, the question and answer panel, poll results and the web cam. A freephone number provides support to clients and an API allows integration with the LMS.

Interactive sessions are delivered at various times that are convenient to work schedules; dentists participate individually from home in the evening, both those in the UK and overseas. Clinical dental technicians participate individually or in groups in the evening as part of their formal training. Dental nurses participate in small groups at lunchtime from their practice. The style is that of a traditional lecture usually with PowerPoint presentations as the main presentation media. The chat and Q & A panels provide feedback and the opportunity to ask questions. Other visual aids are also used. Unlike a conventional lecture participants can submit questions privately that can be answered privately. Those with microphones can ask questions and if they are using a web cam other participants can see them. Sessions are edited to provide an "on-demand webinar".

## Integration with other methods

The live webinars are combined with on-demand webinars, CD-ROMs and within instructor-led training. This service is used by practicing dental professions and also by clinical dental technicians as part of their training programme with KSS Deanery and the University of Kent. The live and on-demand webinar programme is included within the delivery of a post-graduate MSc supporting the hands-on operative training sessions in dental techniques.

## Business impact

Dentists run their own practices and are the best arbiter of the business impact of e-learning. This is what some of them said:

*"It was like being in the classroom which is great. Questions can be asked and answered during and after the presentation. It is not expensive";*

*"There is no travelling involved, it is very convenient to attend from the comfort of my home. This is something new for us dentists. It was easy to ask questions at any time";*

*"Very easy to access with no need to travel";*

*“Well it’s from home so there is minimum disruption to the working day and very nice to have the interactions with other participants”.*

It is difficult for conventional teaching and conferences to meet the demand for learning, both mandatory CPD and for the introduction of innovative practices. Dental Channel Online demonstrates that synchronous virtual classroom sessions do deliver training in a convenient, effective and cost-efficient manner. The learning experienced is enhanced by clearer and easier to see delivery of video and still images. Participants have a significantly better view of new dental procedures than they would have in a conventional classroom or lecture. The fact that every learner has direct access to the screen image improves their capability of following a new procedure.

Each event has between 20-60 participants, paid for by the dental practices. The potential savings for dentists only for the over 1,500 learner hours of interactive conferences that have been delivered probable exceeds £280,000. The cost of face-to-face conference time for this many learner hours would not be less than £60,000 (£300 per learner day with each day delivering 7 hours of lectures and interaction. Over 200 days away from work have been saved (a possible cost of £200,000 in lost revenue) with an additional travel and fuel cost of perhaps £20,000. Cost of delivery through WebEx is less than £30,000 resulting in an overall estimated saving to the industry of 1/4million pounds.

Many of the dental nurses who have received the lunchtime live training might be unlikely to receive similar training otherwise. The benefit to each practice will be increased efficiency during treatment, with dentists spending less time training their own staff in new procedures and a more professional image for the practice.

### **Staff Impact (benefit to dental care professionals and dentists)**

The Dental Channel introduced the first live, and delivers the only regular live, online service direct to dental professionals. The system provides short sessions at convenient times for dentists and their professional staff. UK registered dentists working overseas can participate ensuring that they are able to maintain their UK registration. Dental nurses meet in groups at lunchtime interacting with others from all over the UK and also a greater level of interaction with their colleagues in the practice. This is achieved with little inconvenience to themselves or their employers. Given these advantages what do the learners think of this environment?

*“It was more convenience because it was far easier to see the pictures than it can be in a normal lecture”;*

*“It seems more personal than attending a lecture”;*

*“The fact that you can learn from home but have contact with your peers and lecturers at that time is really convenient”; “I like the fact that all nurses can do a web conference together at our own practice during our lunch break”;*

*Being able to communicate with the tutor is good and I like being able to stay in our surgery”;*

*“You can get answers from people straight away”;*

*“It was at a really convenient time, having part-time nurses as well as full-time working for us meant they were prepared to stay later or come in earlier to attend the sessions”;*

*“At the moment a group of four of us get together to watch the conference and talk to each other about the subject, as well as participating in the conference”;*

*“It was exciting listening to my first webinar”.*

The response to the live training has been very positive, from dentists, nurses and clinical dental technicians.

### **Trainer Impact.**

The trainers delivering many of the real live events, both classroom sessions and conferences were asked to deliver the virtual classroom sessions. These are the tutors with the professional knowledge who know details of current research and new procedures. One advantage of WebEx is that it allows instructors to use existing PowerPoint lectures for their presentations. Nearly all the presenters have lecture content in the format that they use for face-to-face teaching. These presentations would contain photographs and occasionally video support. All this could be included easily in the virtual classroom session.

Presenters receive a guide on how the service works and the important considerations when presenting to a live virtual audience. Presenters are tutored on making the sessions interactive. They are encouraged to use the tools such as polling and private questions that they may not be familiar with. Instructors may either present from the premises of The Dental Channel or remotely. Those working remotely do require additional support.

One common remark from first-time presenters is that speaking to a screen rather than a real audience is odd. They are unable to react to the non-verbal communication. WebEx allows multiple web cams so these are, with the permission of participants, left on to give important feedback to the presenters. They are encouraged to use the tools available such as polling and feedback icons so that they may gauge the attitude of the audience.

The WebEx tools made it easy for real presenters to transfer to virtual ones!

## **10 Top Tips for implementing synchronous sessions**

### **Dental Channel Online's top tips for Next Generation Learning @ Work success:**

1. Trust in domestic broadband service; the main technical challenges relate to computer configuration and the quality of VoIP audio. Addressing the former is well supported by WebEx.
2. Offer the alternative of telephone conferencing facilities.
3. Build on the face-to face expertise and the assets that are already available.
4. Train presenters new to virtual classrooms, particularly with the emphasis on making the sessions interactive using all the tools there are available in the conferencing system.
5. Use web cams of learners to help presenters, particularly new presenters, engage with the audience.
6. Webinar sessions should complement other delivery methods.
7. Constantly evaluate; every session and on an ongoing basis outside the sessions.
8. Track usage and performance; report performance to learners by giving them formal and informal feedback.
9. Deliver to groups of learners as well as individuals.
10. Builds a repository of previous sessions whose content is enriched by real learners asking questions relevant to them; but which are applicable to many other learners.