TOWARDS MATURITY

Improving the impact of learning technologies at work

Next Generation Learning @ Work in

The Centre for ISO9000

Creating Quality - on-line delivery

On-line delivery of learning saves travel time and money. Adding company expertise and knowledge to supplement existing generic on-line courses (in this case from the British Standards Institution) is not difficult. This story presents the case for doing it, what was done and the result.

August 2009

The Business Challenge

The Centre for ISO9000 is a leading source of information for international business management standards. This is a world-wide operation. With clients and staff located around the world, they are keenly involved in the development and promotion of new methods to help them and their clients maintain a lead on their competitors.

Like many companies the present economic climate causes problems; however, these problems are not as you might imagine. The Centre for ISO 900 is currently enjoying a boom in the level of business. Why? In a recession, the way to remain in business is to out compete your competitors. Their clients have found that being independently accredited against the relevant management standards is an effective way of demonstrating their worth to potential clients. To become accredited, they turn to the Centre. So the company needs more people, and rapidly, so as to not disappoint their clients.

They needed to increase the levels of knowledge in many existing staff, while taking on relatively inexperienced people to conduct some of the work that was released. Training, training, training was needed.

But it takes a lot of time to train new staff, and it is a costly undertaking. Staff are located throughout the world; even travelling from the north of England or Scotland or from the south-west to their offices on the south coast can cost as much as flying to the USA. Driving that distance on the UK's congested motorway system can take about the same amount of time as well!

The business challenge was to find new, cost effective ways to train staff. They also wanted to develop methods of training for clients so that they could fully utilise the management systems and tools that the Centre develops for them. This must be done swiftly and effectively.

For many years the company has run on-line training sessions for their staff. They have worked with a number of certification bodies, helping them to develop on-line systems. In recent years, the British Standards Institution (BSI) have been promoting "Webinars". These are a set of downloadable lectures, which can be viewed at a convenient time. They have the advantage of being in "bite-sized" sections. An entire 90 minute lecture may be viewed in one sitting or else split it into a number of sessions.

Staff have attended a number of these webinars. Staff have been based in the USA, Japan, Czech Republic, Romania, Mexico, Australia and many other countries whilst attending these lectures.

The benefits of this include saving a considerable sum of money compared to flying people around the globe to attend training sessions. The company could have arranged local training, but with no guarantees of suitability. Establishing the wide range of courses required globally would have been prohibitively expensive.

Feedback from staff and senior managers clearly showed this method was acceptable and good; but as good as this was, the company and staff wanted more and better. They identified a number of areas that they could improve on and where the improvements were within their own capabilities.

The Learning Solution

Interactive courses were required, where students could ask questions of the lecturer. They wanted to improve on the levels of knowledge retention with a range of highly-specialised courses, for which in many cases the foremost authority is a member of the centre's own staff. It would be unlikely that anyone else would run these courses already or that their expertise would be sufficient for the Centre's purposes.

So, the challenge was to improve on the excellent BSi courses, whilst introducing a wide range of lectures that would be of interest to very small groups of people, without spending vast sums of money. But they did it!

They researched the ways to produce video material that would be suitable for downloading via a web page. Students had to be able to post questions to the lecturer that could be read by others, either in real time or in an archive system. Presentations would contain a set of examination questions; ensuring that students had watched and understood the content.

They researched and employed a range of software that enabled different video and sound sources to be compiled them into a presentation that are arranged in blocks. So that users would not have to learn new terminology just to watch a video presentation, each block is called a "chapter". Printed copy document support some chapters and these are called "handouts"; downloaded by students.

The company made a series of small videos using a standard video camera linked to a PC. Each of these videos, ranging up to 5 minutes long, became a chapter. They mixed photos, graphs and other images with the video, to avoid a monotonous single "face to camera" sequence.

At the foot of the page that contained the link to the video, there is a small chat board. There are rules of usage (one question at a time, no further posts until the question was answered, etc).

Finally, the page has a short on-line examination system. By clicking the relevant button, a timed paper comes up. These are just a simple multiple choice examination. The results are automatically marked by the server computer and made known to the student almost immediately.

Each session will be a sequence of flash videos; the student signs in, a record of attendance is generated and the series begins. A tutor is available to answer questions at the end using either VOIP, perhaps via Skype or else as an audio stream through a secure VPN system.

Live sessions are interspersed throughout but time differences around the globe make this difficult so these are only occasionally used and only for a very good reason. The software used is Netmeeting (built into Windows since Windows 95 but discontinued in Vista). This works well with video, communal white boarding and file transfers. In due course another Open Source programme will be required.

Business Impact

There are increasing levels of gains as these features are introduced; initial savings of 30% of the previous training budget simply by having on-line training courses. Not all courses required many people to travel, but the company can now avoid running traditional courses that do require large numbers either nationally or globally. Now they can run courses without worrying about travel costs. They also save the large amounts of travel and recuperation time that were previously needed.

The question and answer session at the end of the training increased the level of knowledge gained substantially. This indicated that for many learners they already knew a substantial proportion of the basic course. But as the training team do not know which elements they knew, all the topics had to be covered. Once all students had attained the same basic level, there were real gains from the higher level questions in the Q&A session. Expanding this to be at least as long as the basic course provided learners with substantial "high-level" knowledge gains.

Adding the examination at the end of the session improved knowledge retention, both in the short and longer term. The questions didn't need to be very technical. It seemed that almost any questions would achieve the result. Perhaps people become better motivated if they know that there will be a test at the end?

Staff Impact

As part of the examination, students are asked to rate the knowledge they have gained. Line managers are asked to rate the improvements they see. As might be expected in an organisation delivering ISO 9000 training fudged

figures are not needed. In the words of Terry Russell their Managing |Director "*We only ask people to give it to us, straight*." Everyone has rated this system very highly. Line Managers state they can see the difference in output following each course. Students state they can now handle new tasks, or handle the existing tasks more effectively and more confidently.

The only negative comments have been about how people miss meeting up in exotic locations!

Conclusion

You may think "that sounds good, but the cost of it must be enormous". It wasn't. They used Open Source software and Freeware for all the development. They do have a good range of technical skills, but to quote Terry again "*You could probably find a keen youngster fresh from college to set this up for you! (Keep your Microsoft-trained IT people away from it. They will want a budget of millions).*"

Thanks to Terry Russell, Managing Director of the Centre for ISO 9000 for supplying this information.

Seven Top Tips for getting started with live on-line delivery.

The Centre for ISO 9000 top tips for Next Generation Learning @ Work

- Don't ask your students to use new terminology just to attend a lecture. Use terms that they are familiar with in that context.
- Keep the presentations to a maximum of about 40 minutes. Then allow a short break of no more than 5 minutes before the question and answer session.
- A question and answer session following the main presentation will bring an exponential increase in the level of knowledge gained.
- Put someone into the "audience" with a set of pre-prepared ice-breaker questions to get things started.
- Always have a short exam at the end, even if the questions are trivial, it will greatly enhance knowledge retention.
- Use people with interesting voices. Looks don't seem to matter, but a person with a droning voice or who repeatedly uses phrases such as "y'know", "and again" etc will be a distraction from the course content.
- Don't let your Microsoft-trained IT people near this. They will want a budget of millions. There is a lot of excellent free software out there. Find what suits you and use it.