

Case Studies taken from the Australian Flexible Learning Framework 'How Organisations are using e-learning to support national training initiatives – Final Report – February 2009'

Skills shortages of bakery apprentices

The bakery and pastry industry is an excellent example of an industry where employees have difficulty accessing traditional methods of training using block release. The vast majority of employers are small to medium-sized enterprises. Many employees are casual, working hours are highly variable, businesses are located in small towns and regional locations, and travel costs can be high. Again, small businesses find that their productivity is markedly affected when staff are absent because of training.

Hunter Institute in NSW has moved to providing training for students beyond the traditional forms of block release to more flexible options across its various campuses. This institute has made considerable progress with new forms of more blended delivery. One champion of this initiative, Gary Sewell, and his team continue to grow his well known e-learning program to train bakers for a number of top baking franchises across the country, including Bakers Delight and Tip Top. His most recent project is about fast tracking the Certificate III course into one year.

A major part of these developments is allowing regional students to use their on-the-job experience to reduce the time spent away from their business, as well as to reduce their travel time. The success of these industry-focused training programs is leading to expressions of interest from other major players in the bakery industry. The partnership with Bakers Delight has also led to other training, including a course for their national sales staff. Following the apprenticeship model, this training is delivered in the workplace using tools such as chat, PhotoStory, email, SMS and traditional self-paced packages.

These bakery industry initiatives are also examples of how an industry can be sold on an idea that it sees as useful in other industries. The Hunter Institute story in part has its origins from an earlier partnership between Hunter Institute and the chocolate maker Callebaut. Callebaut permitted access to its training resources, which were used by Hunter Institute to create a website for more flexible training. Partnering with Callebaut, students were able to access high quality materials and detailed industry knowledge, receiving their learning content online by email, SMS and other means.

In summary, the Hunter Institute case highlights the benefits of learning designed to use the technology that learners use every day and are most comfortable with. The Bakers Delight and Hunter Institute partnership shows the value of using pilot training programs up-front and in allowing apprentices access to materials they can manage at their own pace. It also illustrates the virtues of using a mix of tools. These include movies, video games, photo stories, blogs for use with assessments, and text to explain the processes behind bread making, all accessed through computers, laptops, personal digital assistants (PDAs) or mobile phones. Evidence of workplace activities and learning is recorded using mobile phone or PDAs before being posted onto blogs. This design includes the strong use of regular forums and chat room sessions with teachers and students to back up the learning.

Skills shortages in the building and construction trades

The building and construction industry is dominated by small to medium-sized businesses, with many being small regional players. A number of training providers in Queensland, Western Australia, Victoria and South Australia are addressing the issue of how to deliver more flexible training to the building and construction trades.

The Blue Dog Training company in Queensland has designed apprenticeship training to integrate training into the workplace in a way that suits day-to-day operations. Blue Dog Training has developed generic learning and assessment methodologies that can be contextualised or customised to suit the individual's learning style and working environment as well as the needs of the employer. E-learning tools allow more self-paced and self-directed learning, while each learner is assigned a course trainer who supports the practical and theoretical components of the course.

As with the Transforming the Trades initiative in Western Australia and its use of work tasks concepts, at the core of this flexibility at Blue Dog is a new way of thinking about learning content. Blue Dog view the training process in terms of learning objects that are much smaller chunks of learning than units or modules. These interactive objects typically require the apprentice to work online, at their own pace, for between 10 and 30 minutes. Each of these self-contained chunks of knowledge is stored in an online database that can be accessed at any time. The results are tracked and feedback is immediate. The resources require the students to be actively engaged, either by viewing, listening or interacting in some way with the visually exciting content. The assessment process is built into this training model. As a self-paced model, it is up to the learner to decide when they are ready to be assessed, but on average, the suggested timeframe is to have completed the learning and the assessment within a six month period. The assessment process also incorporates RPL processes.

Providers in Western Australia are experimenting with ways to combine face-to-face delivery and e-learning. Tim Oliver at Swan TAFE is using the opportunity and funding provided by the Transforming Trade Training initiative to incorporate the greater use of digital storytelling into carpentry apprenticeships. This tool has proved to motivate students, making their contributions more creative and engaging them more in the learning process.

At Chisholm Institute of TAFE in Victoria, teachers in the building and construction programs need to respond to increased student numbers for training in various skills shortage areas. Their focus is on more innovative ways to combine workplace and off the-job training and assessment so that learners are more engaged and teachers are using their knowledge and skills in the best possible ways. For Rodger Carroll and his team at Chisholm Institute, a partnership with the University of Melbourne has encouraged the examination of mobile technology for delivery and assessment. The software Lifeblog allows mobile phones to provide a mobile diary or a mobile blog. This development has also opened up opportunities for the use of e-portfolios.

A related project focused on learners engaged in offsite construction in shop fitting and aluminium fabrication. Traditional methods of training for this group involved recording site visits, completing question and answer sheets, and using written employer or supervisor reports as third party evidence. Reports were often not completed or their quality was poor. One solution was the use of mobile phones to support onsite delivery and the recording of assessment. Such tools are accessible

by learners, teachers and employers and also overcome problems that some learners have with accessing computers at home or in the workplace.

As the Lifeblog software is not applicable to all mobile phones, Rodger and his team of teachers decided to use a Moblog, which is similar to a blog or journal but accessible via mobile devices as well as computers. At the core of the Moblog is the capacity for learners, teachers and employers to communicate and to post via their mobiles, aspects of the training. They can post pictures and comments, as well as add in discussion and reflection about the learning materials and the learning. The Textamerica platform allows for picture postings, video postings, digital sound files and short text postings, as well as a comment platform where the learners and facilitators can respond to or add comments to a posting. The Textamerica platform also provides for the inclusion of third party evidence gained via the employer/supervisor videoing the student carrying out a task. In addition, they can add in audio commentary, negating the need for written reports. Validation is addressed via the visual image of the actual student doing the actual work. Auditors have expressed their support for these forms of evidence captured by e-portfolios.

As a result of this series of projects in the use of e-learning tools, the building and construction teachers believe that they are now better allocated to activities that make the best use of their time and skills. Learners and employers are also benefiting, including some fast tracking in apprenticeship completions. Better partnerships are emerging between learners, teachers and employers. In addition, learners are more engaged, and completion rates are higher especially in VET in Schools programs.

In South Australia, Glyn Milhench reports on significant developments that have occurred relatively quickly at TAFE SA. In particular, these initiatives involve the use of Moodle with pre-vocational Certificate I training, as well as with the Certificate III carpentry apprentices. Students in the carpentry trades are able to record and edit their own videos and podcasts, and use websites such as YouTube and Google Video to upload and share information with other students. Using flash drives provided to students, they are able to download material and add in movies and digital photographs from building sites or other locations. Many apprentices are now using the online material from home and work, lessening their time at college. They spend more time learning skills onsite, which has cost savings for employers while increasing the interest of employers in employing more apprentices. The view among teachers at TAFE SA is that students have responded well to the opportunities provided by Moodle. There is increased access and participation, and students are adding in more information and are more able to keep a better record of what they are doing and learning.