CASE STUDY: Childcare

When Sally and Chris Eaton developed their idea of creating an ePortfolio-based nursery training solution, little did they know they would create a company that has already enjoyed exponential growth and launch a benchmark-setting eLearning solution with the flexibility to beat off the effects of recession-imposed limitations in Learning and Skills Council funding.

After having sold their previous company, which managed 8 nurseries and 3 independent schools, Sally and Chris Eaton wanted to go back to their roots. Having always been deeply involved in the care of children, Sally had noticed that not all nurseries and infant school staff had the necessary knowledge, skills, quality-assurance and training schemes in place. The existing training system was mostly manually-driven and paper-based. Learners would have to meet assessors, and these meetings would often get cancelled or postponed.

Sally Eaton explains "BBC's Panorama did an undercover story and disclosed all sorts of bad practices, including people not being trained despite the fact they claimed they were trained. Nursery managers and owners were under a lot of pressure from parents to deliver quality, and effective training was not being delivered."

Sally's idea was to create an on-line training solution which would allow learners to access training 24 hours a day 7 days a week, and where they could do as much, or as little, as they felt like on a particular day. Since a full training program for nursery staff takes 10-12 months, and is paid for by councils and government funding throughout the U.K., the system also had to be able to track their progress and estimate when a learner would reach completion.

The Eatons proceeded to evaluate a number of ePortfolio-management software solutions. They quickly discovered that although some of their ideas could be accommodated within existing ePortfolio software, none met their requirements exactly and all were too complex and not user-friendly. On top of that, there was a get-to-market timeslot to be observed, especially if they were to establish themselves as "first to market" and try to grasp a market-leading position.

They knew Chris "Ziggi" Paul from their previous business and, being an experienced software developer, Ziggi offered to develop the solution using Dyalog with an ASP.NET front-end.

Ziggi explains "I have a background in software development using various languages and products and I have worked with the development of large solutions such as commodity trading. My immediate background was as owner/manager of a consulting company that supported IT solutions at schools, which is how I knew Chris and Sally.

"Dyalog is excellent for rapid development. However, I had not been involved in APL for the past 7-8 years so I had a steep learning curve to familiarise myself with all the new tools such as the .NET interface, which would be a key part of the development. My idea was to develop the system with an ASP.NET front end with Macromedia Flash plug-ins and let everything underneath it be controlled and managed by a Dyalog .NET program. I am grateful for the support I received from Dyalog Ltd initially, as I had to get intimate knowledge of Dyalog .NET in a very short space of time indeed.

"It is easiest to think about the system in two parts:

- The lessons and lesson content
- The ePortfolio structure that collects, monitors and allows assessment of the learners' work.

"The lessons were a series of pages based on common templates; currently about 10 templates are used in the generation of hundreds and potentially thousands of pages. A content management system was used to generate these pages based on APL component files rather than an SQL database. The use of templates made it easy for a non-technical person to generate pages that looked very different but retained a common style in terms of how the user uses the content and how they navigate to other pages."

Lisa Sutlieff, Information, Data and Communication Officer, works closely with Ziggi and it's her responsibility to get lessons and other content uploaded to the system.

Lisa explains "There were aspects of the solution that Ziggi didn't know about, such as the complexity of the assessor's side and the internal verifier's side. Initially he didn't appreciate how differently the external auditor would wish to view the system as he assumed that it would be similar to the internal quality control process. In Dyalog however, Ziggi has chosen a tool which made it extremely easy to make changes to the solution based on the input we got from test users. I am sure that he had to learn an awful lot about what is required when you are training and assessing nursery staff. But after having produced a version of the solution for the internal verifiers, we could take their comments and expertise on board and make the necessary directional changes."

Ziggi continues "It is worth highlighting that had we not been using APL we could never have sorted these issues as fast as we did. Things like the spinning icons, for example, were very simple to implement and have a huge visual impact throughout the site, as they highlight news and other things for the individual learner.

"We also wanted to implement a statistical system. This is actually something which had never been done before, but we thought it would be beneficial for the funding parties and chains to be able to get feedback on learners' progress and expected completion time. Furthermore, we can now provide our clients with statistics with regards to how much time their learners, on average, spend on-line, how many are within certain age groups and more."

When a user logs on, the first page they reach is the learner's homepage

Sally picks up "I probably didn't help matters a great deal as I wanted the LASER (Learner's Assessment, Support and Evidence Resource) to appear completely non-technical, for example our "splat" graphic (see below). I didn't want a linear structure when it came to the lessons. I wanted the user to be able to move around at their whim rather than having to follow a pre-defined structure. It is important to recognise that people learn in different ways. Some like to read, others need to write things down and others want to try things in practice or watch a video about it. We have to cater for all these individual learning styles in order to ensure that our learners have a high completion rate and are motivated throughout the learning process. I wanted a playful user interface, almost like a game. I wanted the solution to be so simple that people who had never used a computer before would not be afraid to use it, and that it would be easy and logical for them to get started without having to actually attend IT training."
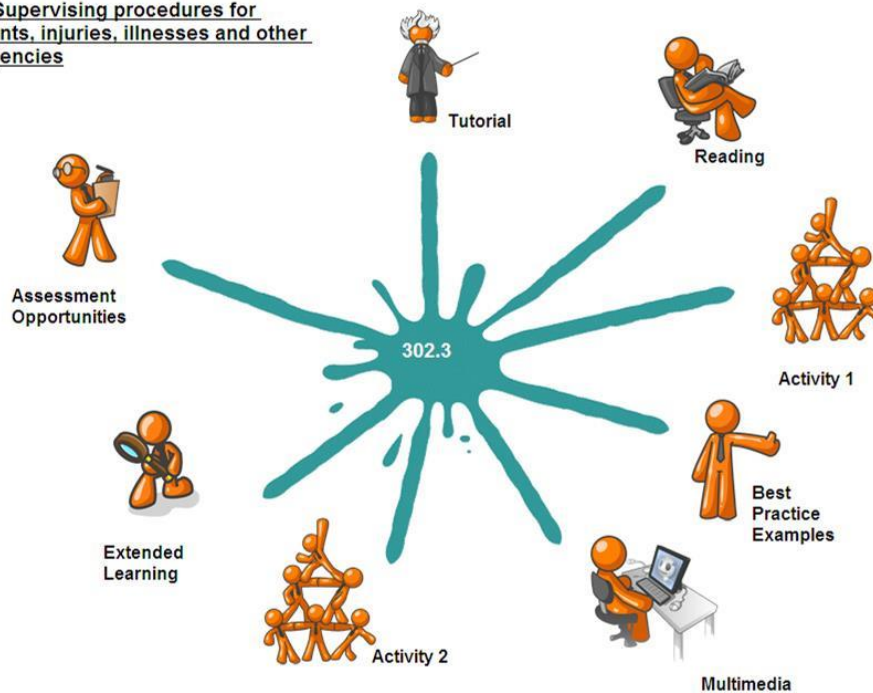
The lesson "splat", which allows learners to jump around in the lesson as they see fit, rather than follow a linear structure.

Between May and early July 2008 Ziggi wrote and wrote, working closely with Sally, who produced the lessons, and Lisa, who populated the pages via the content management system. Meanwhile Chris Eaton was on the road, talking to prospective clients.

Chris says "By the time someone wanted to see the LASER live we were almost ready to launch. One of the UK's largest chains of nurseries decided they wanted to come on board, and at that point we had to demonstrate that the solution was up and running. In fact we started the system with learners before we went live. We gave them the learning material via e-mail – not a huge improvement to the old manual paper-driven system I admit – but it got the learners started and the assessing too. In early July we launched the solution online with 75 learners. I think the key to our success is that we started by going directly to the nurseries and once we had them signed up we could go to the councils to ask them to fund the learners."

Once a learner is working in their ePortfolio, the icons indicate where they need to do work and upload materials, where their assessor has left a comment and so on. The progress bar in the upper left corner tells them where they are in terms of completion percentages, for the whole course as well as the particular unit being viewed.

The company went from strength to strength over the last few months of 2008, and in November they won the Nursery Supplier/Innovator 2008 Award at the Nursery Management Today Awards.

Recession led to Learning and Skills Council Crash

Early in 2009, without warning, the Learning and Skills Council's "Train to Gain" funding stream ran out of money. All independent training companies, both classroom and eLearning-based, were told there was no funding for new learners for the rest of the academic year.

Chris explains "The business model worked on a simple structure: we found someone that required an NVQ qualification in childcare, then we would locate a funding source, more often than not we would then get "Train to Gain" funding from the Learning and Skills Council, put the two together and start the learner on the course. This allowed us to grow rapidly, and the system was proving a great success both in terms of reliability and being able to cope with expansion.

"Lack of funding for learners could have been devastating to our business. At a hastily arranged meeting with the Learning and Skills Council, a number of classroom-based training companies expressed deep concern that they could go under due to this miscalculation of "Train to Gain" funding. Our representative felt we had dodged a real bullet, and we quickly started a recovery strategy.

"Within the Childcare Company we have people who are so attuned to the industry that we knew where to look for other sources of funding, for example, we quickly identified an alternative LSC

funding stream, apprenticeship training. We further have the ability to adapt the LASER quickly so we could replace the Train to Gain source of income with these alternatives. We therefore moved to accommodate apprenticeship courses which give the learner the National Vocational Qualification as well as a Technical Certificate. The Technical Certificate courses required a whole new section in the LASER and some extra features which we were able to introduce in time to offer all learners on our waiting list this alternatively-funded course. In addition we were able to offer short courses as a sub-section of the full NVQ qualification for those who needed to top up a previously obtained NVQ or to gain knowledge in a specialist area of childcare.

"With the new academic year upon us and the Learning and Skills Council re-opening its funding accounts we are now better placed than ever to provide a wider range of courses to an ever growing market, as many people find themselves with the need to retrain. Our adaptability prevented disaster and put us in a much better position for moving forward with confidence in ourselves and an APL-based system that underpins the organisation," Chris Eaton concludes.