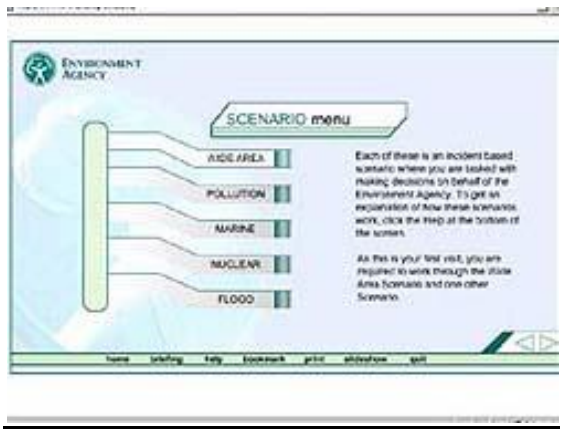
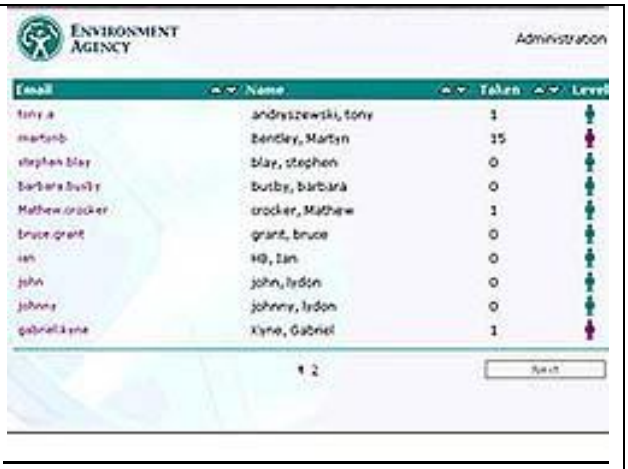
VANTAGGIO information learning knowledge

TECHNOLOGY SUPPORTED LEARNING: The Environment Agency Case Study





The Agency employs around 10,000 people across some 14 different sites in England and Wales. One of its main tasks is the provision of expert advice and resources to a wide range of partner organisations such as the Police and Fire Service in the event of a major incident: these can include Nuclear, Pollution, Marine or Flood incidents as well as events such as an outbreak of Foot and Mouth disease. Moreover, the Agency has a duty to ensure that properly trained personnel are always available to assist in such incidents.

Traditionally, the Agency had organised all personnel training around classroom or facilitated off site environments. However, with increasing pressures on resources and budget constraints, it was becoming increasingly difficult to sustain training in this way. An e-learning solution was sought, and it was decided to proceed with a pilot project. Strategic and Tactical Incident Management (STIM) was chosen as the subject for the pilot for two main reasons.

First, the volume of users was easily quantifiable at around 900, and these individuals could be guaranteed to have high IT literacy levels. Second, by introducing STIM learning as an e-learning solution there would be an immediate financial gain over the high cost of practical training courses. The downside was a perception that this particular group of learners would be highly averse to learning via a computer.

The STIM e-learning pilot would be introduced as part of a blended learning solution. It had to be accessed via the internet, from workstations, and work within the limitations of restricted bandwidth availability, as well as restrictions on the use of certain types of media and development tools.

The issue with traditional STIM training was that it not only took key senior members of staff away from their place of work for up to 3 days, but, also, it had been found that a significant number of people attending the practical courses had gaps in their knowledge and understanding of procedures, policies and protocols, which made role-playing - a major part of the practical training - ineffective and meaningless.

A significant factor in the approach to the pilot was the perception of the learning preferences of the targeted individuals. These are predominantly academics and scientists, who were perceived to be unfavourable to e-learning, preferring instead off-site practical courses where they could network with their peers. In other words, this was a high risk project.

CHALLENGE	SOLUTION
How to create an effective and engaging e-learning course on a subject matter - policies and procedures - that is considered to be dry and uninteresting.	It was clear that simply placing text onto electronic pages as factual content would not suit this particular project. In fact, much of the content was already available on the Agency's intranet in the form of electronic documents. The solution centred on the use of pre and post assessment, with the learning content designed as role playing scenarios, with links to relevant documents. The pre-assessment was used to filter out those individuals who already had a sufficient knowledge. In both pre and post assessment, a pass would automatically qualify an individual to be booked onto a practical course. The duration of the practical course was considerably reduced. The learning strategy adopted for the e-learning content was based on "learn through doing". Each scenario presents a realistic incident, and the learner has to make a number of judgements to move the scenario forward to its conclusion. To help inform their decision making, different types of information are presented - some "red herring" - and they always have access to a "library" of factual information for consultation. It's a classic example of turning the "knowledge transfer, knowledge check" equation around.
How to engage the target learning community and motivate them to take up the course and complete it.	As with many new training initiatives, the approach to change is very much that of power-coercion: this is how the training will be done, take it or leave it! However, with this particular pilot project, learners found one major advantage over traditional practical group learning: performance in the pre-assessment would filter out those who didn't need to take the e-learning course, and the entire training solution still involved an element of off-site training. In the design of the content, the greatest effort and emphasis was spent on the quality and realism of the scenarios, and the different styles of writing used to present information. Accuracy, and therefore credibility, was seen as being of

	paramount importance. The scenarios were developed in workshops with Agency subject matter experts over a period of several weeks.
How to give the learning content a broader use within the organisation.	There was a clear need to justify the expense of the e-learning pilot in any other way possible beyond the savings to be made through reducing the duration of the practical training. The sheer amount of time invested in capturing the expert knowledge and experience of the Agency's subject matter experts provided the solution. Never before had such a mass of data based on real incidents been amassed in one place. It would be invaluable if the content of the learning course could be used in other ways. The solution was to include a simple slide show feature within the learning program. This allows the user to select any number of screens from the program, in any order, and then store or run them as a linear presentation. This meant that the STIM e-learning program could now be used to support briefings, seminars and indeed incident briefings.
How to measure the effectiveness of the approach and strategy adopted.	The first issue to be addressed was that of course take-up. To be effective, and achieve its goals, the targeted users had to engage with the e-learning, initially through a pre-assessment. This was done through "invitation" emails with clear instructions on how to register themselves into the simple LMS. The registration action was made as easy as possible to ensure that the user's first exposure to the e-learning was a straightforward one. Each targeted user was made aware of the reasons for introducing this new blended learning solution, with the clear message of "what's in it for me." Authorised administrators were automatically emailed with a message each time an individual registered into the system, and each time someone passed either of the assessments. Using data from the LMS, the Agency was rapidly and easily able to generate reports on course take-up, completion and assessment performance.