

# Learning in the workplace: a new degree online

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This paper reports on attempts to develop a new learning in the workplace degree based upon an online learning community approach. The paper describes the use of individualised learning plans, shared electronic portfolios and collaborative reflection on practice. Online strategies such as ‘hotseating’ and the use of workplace advocates are illustrated. The paper exhibits that it is possible to build an online community for an award-bearing workplace learning degree but that new tools and approaches need to be developed to ensure self-directed learning from experience and through reflection can take place in a community of learners.

## Introduction

In 2003, a new degree, the BA (Hons) in Learning, Technology and Research, was launched by Ultralab. Challenged by the objective to create a new degree for people in full-time work, the Ultralab team focused on designing a programme that maximises opportunities for learning in the workplace.

Students are referred to as ‘Researchers’ and the Ultralab staff who are taking the role of tutor are called ‘learning facilitators’. This is important as it reflects the belief that the relationship between those studying for the degree and those offering the degree, is not one of ‘expert’ and ‘student’ exchange, but is aiming to develop a student-centred learning experience where students are valued as co-researchers, contributing to the development of the project. Throughout this article, a capital letter will distinguish between the Ultraversity Researcher, and the more generic term.

At present, the bulk of Ultraversity Researchers are from school backgrounds, and are mainly support staff, such as teaching assistants, technicians and bursars. There is also a proportion from the health sector. We are currently investigating intake from other more varied work environments.

The programme is underpinned by pedagogic principles to ensure what has been called ‘deep learning’ (Ramsden, 1992; Atherton, 2003), including:

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- learning from experience;
- critical reflection;
- action enquiry;
- collaborative discourse in online learning communities;
- self-directed adult learning.

Bringing these principles together in a completely online undergraduate programme, directed towards people who have not had the opportunity of higher education previously, is the focus of this work.

Learning from experience as outlined by Kolb (1984), Winter (1989) and others, is at the core of the approach used in a workplace-orientated programme. Action enquiry methodology guides the Researcher's study and learning activities following the model proposed by Stenhouse (1975), Carr and Kemmis (1986) and Elliot (1991, 1993). Critical reflection as outlined by Kolb (1984), Barnett (1990, 1997, 2000) and Bradshaw *et al.* (2002a), are integral to the learning processes developed by the degree and can be found in all of the modules undertaken.

In practical terms, this means using learning journals to collect and reflect upon critical incidents at work, electronic assessment portfolios as a means of collecting items for assessment and reviewing progress, electronic 'Individual Learning Plans' for Researchers to take control of their learning within the framework given, and online learning communities for discourse between Researchers, facilitators and experts.

Ultralab's experience in online communities has proven to be a powerful further stimulus and influence focusing upon collaborative discourse about practice in online communities. Content does not form the basis of this degree course. The degree aims to promote learning primarily through brief stimuli leading to discussions in the online community. Coomey and Stephenson (2001) note the mechanism of empowering learners online about constructing, and structuring opportunities to move from specific tasks to more open-ended and strategic ones. Thus teacher-controlled learning opportunities can be replaced by learner-managed ones. The work of Lave and Wenger (1991), Wenger (1998), Bradshaw *et al.* (2002b, 2004), Hart (2004), and Heppell and Ramondt (1998) on the importance of learning as a social action through the negotiation of meaning informed the planning of the degree. Self-direction and choice was a further element of the design of the programme which also took account of the work of Knowles (1990) and others in adult learning.

Hence, from these pedagogic principles and practical requirements of Anglia Polytechnic University's quality assurance requirements, a pathway was created for the first cohort. Essentially, the pathway is a shell of generic modules which can be adapted to meet the individual Researchers' own context, learning needs and job role. Researchers negotiate the coherence of their curriculum in their work context at a modular level with their learning facilitator. There are six 20-credit modules in the first two years and three 30-credit modules in the second year in which the generic graduate skills are built.

A further imperative for the team was to create a process that led to learning but also collaborative change and improvement. Hence, the final year was created around the concept of an exhibition of work in a public place, informing peers and the wider community of lessons learned on the programme.

## The individual learning plan

The individual learning plan (ILP; Figure 1) frames the term's requirements in terms of learning outcomes, but offers Researchers the ability to design their own learning activities and modify learning outcomes in negotiation with their learning facilitator. This process makes their enquiries and research relevant to their own workplace and role and is intended to maximise the impact of their learning on their job and their institution. To provide the framework for this to happen, the set of University module definition forms are designed to be generic and adaptable to individual work contexts.

Researchers make the generic learning outcomes more specific, and they outline their own learning activities, such as carrying out small-scale research, undertaking a review of documents, observing good practice, undertaking a visit to another place of work and so on.

Researchers can also design their own products for assessment. These may be in the form of CD-ROMs, web site or slide show presentations, digital films or text-based accounts, for example.

The first term's ILP is more prescriptive than later plans which become more negotiable and Researcher-directed. In the first module of the degree programme, Researchers were asked to identify role requirements and expectations from documents such as job descriptions and policy statements, from published competence statements, and from discussions with staff. They were

**Ultraversity Individual Learning Plan**  
2003, Term 1  
for  
**Gina Revill**

[details](#)  
[word](#)  
[file](#)

This tool helps you develop your Individual Learning Plan (ILP). The planning activity will take place each term.

Part of this template is filled in for you and cannot be changed, and part can be changed by you. We have given some examples and suggestions about how someones ILP might look. you can change these for your own ideas to make them fit your own circumstances. Remember, this document is for planning purposes, it is not a place to keep your research.

The tool should help support your learning. It is an agreement between you and your learning facilitator about the activities you are going to undertake.

Being able to plan and manage your own learning is central to the Ultraversity degree, and as you progress through the programme. You will take responsibility for developing more of the plan yourself. Remember, enter a date for each learning activity if you need to keep to a deadline.

Please remember that as with all computer systems it is good practice is save your work regularly. You are able to make changes to your ILP at any point.

An enquiry into my work context:

Figure 1. Ultraversity individual learning plan

then to self-assess their abilities against these expectations and in discussion with colleagues. A final stage was to plan the priorities for their development, which could be picked up in later reflection modules. The assignment was to produce a report on this work and many used multi-media, PowerPoint or web sites.

It should be noted that the ILP is a web-based tool creating effectively a web-based document which can be authored, shared and negotiated by Researcher and facilitator, and kept in an 'electronic portfolio' of learning plans, assignments and commentaries.

### **Initial reaction to the independent learning plan**

The initial reaction to the ILP is broadly positive. One Researcher has said:

I have filled in my ILP for activity one now. I think the idea of an ILP is extremely good. I'm not sure what I would have done if I hadn't had help and the opportunity to point out the things I needed to study. I'm hoping as my research goes on, I will become more independent with my ILP.

Another added:

I really like the idea of an ILP. It has really helped me with the findings for my research. I found it very useful in activity one.

A further Researcher emphasises skills development with:

The ILP (individual learning plan) has helped me to identify my skills as opposed to my actual responsibilities. My colleagues helped me to reflect on my role and skills. They were able to tell me my strengths and weakness. I presented my findings through a 'PowerPoint' presentation (ILP activity one and two), part of this information I have been able to use for my report.

However, some found the approach personally challenging:

Using an independent learning plan was an interesting exercise. It was also quite revealing in many ways as it made you examine yourself closely. Perhaps too close for comfort. Self-evaluation is probably one of the hardest things a person has to do ... Having Individual Education Plans for children in school I thought this would be a doddle. How wrong I was. Instead I had to look closely at what I hoped to gain from this course.

The message that the ILP could develop an individual and independent approach to learning has been difficult to get across to some that were expecting a more traditional approach. One Researcher suggested that:

I gathered from the ILP that you are able to take control of your own learning and can develop activities that suit your needs and your workplace.

This reminds us of Stephenson's view that the expectations of Researchers need to be worked with and taken into account. (Stephenson, 2001).

### **The portfolio tool**

Researcher work, including negotiated learning plans, reflective writing, learning journals, formative and summative assignments are kept in an electronic portfolio, which can be viewed by tutors.

In designing learning opportunities at work, we have been conscious of the need to capture reflection in action for reflection on action, following the model proposed by Schön (1983, 1987).

However, we are conscious of Eraut's observation that time is an important factor sometimes preventing 'deliberative analysis' (Eraut, 1994).

For Researchers in full-time employment this is an obvious challenge in the design of learning opportunities. We suggest using technology to capture critical incidents, notes and moments of learning through the use of electronic journals, digital photographs and video clips. We want to collect a portfolio of work-based 'artefacts' such as notes, minutes, plans and the like to represent significant points of learning to be reflected upon, and analysed at a later stage. These artefacts can be focused upon the learning goals that the Researcher identified in the first term. As much as possible research, in the form of interviews, surveys, observation and other methods, focused upon institutional and learning needs, can supplement the material for reflection.

An example of a second-year module may assist in illustrating this approach. Researchers are asked to choose a critical incident from their workplace, such as a decision, a conflict or a lesson. They are asked to describe and reflect upon this incident, showing that they can also perform a double-loop reflection. This is not a new approach to teaching reflective practice. What perhaps differs from other programmes of study at undergraduate level is the online community where Researchers negotiate with each other the meaning of double-loop reflection. The level of discussion and collaborative work appears to go beyond that of a traditional tutorial, in that it is constant throughout the module, and Researchers are able to share sources, files, experience and ideas.

One researcher, in seeking to understand what a double-loop reflection was, wrote:

I think that Double Loop is very tricky, especially for TAs [teaching assistants] as we don't have much say in how a lesson is presented. I guess it is a matter of looking at the data that you have collected and thinking about major changes in the way we think or plan our lessons as a result of the reflection that you have done ... What do others think?

Other Researchers and facilitators responded in kind, and after some more research on her part and as she expresses in good humour, 'much agonising', she came to a closer realisation of what was required:

From this I have concluded that I need to dig deeper to find my governing variables, at the moment, all I have is my 'espoused theory' what I expected to happen and my own account of 'theory in action'.

It is the ongoing 'many to many' discussion that offers a deeper exploration of issues, and it is in this way we seek to explore ways of studying through critical reflection while at work. There is more work to be done in researching this area.

### **Researcher reaction to the issue of work-based reflection on practice**

Despite efforts to design learning activities embedded in practice at work, the time devoted to the programme has proved to be a problem for some, although not all Researchers. One said:

10 hours per week is a huge under-estimate for the non computer literate. My advice to others in the future is allow 20 hrs and try to persuade work to give some time. Mine won't due to capacity issues and lack of money.

However, these comments need to be balanced by the large quantity of high-quality work produced by many Researchers. Controlling 'overproduction' is of concern to the team. The development of learning activities in the workplace is in an early stage and it is anticipated that

this will reduce the time devoted to the degree above and beyond normal work commitments as Researchers develop an individual understanding of the consequences of their input. Programme materials and instructions aim to support Researchers in working out the amount of work they need to undertake for the degree.

### **Action enquiry in the workplace**

There is a growing body of evidence of the positive personal and professional effects that engaging in action research has on the practitioner (Lieberman, 1988). With this in mind action research is at the heart of the BA (Hons) Technology, Learning and Research pathway.

In using this approach to learning we intend to build collaborative enquiries and development in the workplace. Researchers are guided in the focus and design of their project based upon their learning goals. Data collection and analysis approaches are discussed as well as ethical frameworks. The enquiry is negotiated with the workplace. The final report is made public to a wide audience as a lever of change and a stimulus for more collaborative and negotiated change. In the final year of the degree it is intended that the enquiries will be displayed in a public exhibition. At this time it is too soon for feedback from Researchers.

### **Reflective writing in the workplace**

One approach developed by the project has been to use the ideas of Winter *et al.* (2003) on 'patchwork writing'. In addition to work-based artefacts and notes, Researchers are encouraged to author alternative reflective pieces on issues and topics suggested by their learning plan. Researchers are encouraged to make photo albums, write poetry and design posters illustrating key incidents for analysis. This material is then reflected upon often using frameworks suggested by the literature on reflection stimulating analysis of feelings, lessons learned and so on. A report is produced stitching together this reflection.

The approach develops the classic double-loop learning suggested by Argyris and Schön (1984). In one case, a Researcher completed a series of compositions representing for him, his reflections on his workplace, using different presentation styles. These included:

- Transcripts from conversations with fellow students attending the online course, discussing what 'reflection' might mean.
- Extracts from a learning journal about the process he had gone through in investigating, discussing and organising his literature review.
- A short story of one man's journey to work and his thoughts.
- A slide show of photos of his journey to work with an accompanying commentary.

His concluding piece of writing discussed his choice of compositions, and how these aided the process of reflection. (This assignment can be viewed in full online at <http://frankieroberto.com/dad/ultrastudents/andyroberts/term2/flash/index.html>).

It has been observed that as the second cohort enter their second year, the amount of experimentation with alternative genre has decreased. This could be attributed to increased workload and therefore stress levels may have increased. When under pressure, it may be easier for both Researchers and facilitators to revert to dealing with more familiar methods of expression such

as the text essay. Research continues to exploit the best ways to implement the patchwork authoring approach.

### **Student reaction to being encouraged to use different modes of reflection**

Researchers usually take up the challenge of presenting their reflections in a different genre with enthusiasm. For one module they were encouraged to write reflective poetry, and many reacted with glee and shared their work with each other, some going on to use their poetry as part of their assessment portfolio.

This extract comments on a lesson used as a critical incident—the Researcher wrote a poem to bring in her perceived problems with the curriculum:

Not only Lennox Lewis do they now know  
The other Lenox is suspicious regarding the death of Banquo  
Familiar they are with Lady Macbeth, a really nasty type  
Should they blame the three witches and their wicked hype  
Instead I might have lobbied to change the curriculum  
Not in time for this year 9 would the change have come  
Would I do the same again, I hear poor William cry  
Sorry Wills, I would, perhaps you should reflect on why  
Perhaps it is the cause for much deeper reflection  
Why is Researcher literacy so low or is this misconception?

Leach & Moon (1999) have outlined the possibilities of using learning journals to defend the quality of learning, increase active involvement of Researchers, and enhance professional practice and to develop intuitive understanding (Boud, 2001). Researchers are encouraged to keep a learning journal and some are using web logs (blogs), photo albums and video journals for this purpose (Figure 2).

### **Initial reaction to the use of learning journals**

Many Researchers have found keeping a journal valuable:

I did begin to use my Learning Journal again this half term. I have found it a useful tool in my work to monitor sessions i.e. talkwrite, speech and language and BRP. I can keep track on children's progress much more visually rather than just in my head or through discussions with the class teacher.

I have found that looking back at my learning journal has made it clear what I actually do at school.

### **The workplace advocate**

Workplace degrees have a long history of developing mentoring and partnership arrangements. Caley (2000) emphasises the importance of a conducive learning environment for work-related learning and emphasises the role of managers. Eraut *et al.* (1998, 2003) suggest that slightly more experienced peers offer the best workplace learning support. Widespread performance management and appraisal systems, and standard 'good' management practice, as suggested by the Investors in People standard (Investors in People, 1993) would suggest that workplace advocates would not be difficult to find for most Researchers.

## Instructions for Picture Based Journal

**A Picture Based Learning Journal** - This type of journal can be created using a digital camera, researchers could take pictures of different aspects of their work and write a caption to explain each picture. Entries in a log journal may look like this:

Group activity in the class really helps the children with learning difficulties and I can see at a glance where I need to be within the group in order to support Ben. I talked to the teacher about learning styles and now need to read up on this.



Figure 2. A picture-based learning journal

In a distributed degree like this, organising such a programme would be difficult and costly. It was decided to create a model where the candidate could negotiate support and advice for their work and study but without the need for specialised training in, for example, the programme and its assessment. Rather, to base work-based support on professional discussion within the context of the workplace.

Researchers have been required to work with the support of a workplace advocate. The Ultraversity degree is focused upon change and improvement, not only in the work practices of the individual Researcher, but of the organisation in which they work. The workplace advocate is ideally someone within the workplace who is both able to support study and to ensure that the place of work will benefit. Mostly Researchers have chosen a line manager, or other senior member of staff.

The advocate is not involved with the academic side of the degree work and its assessment but in providing an environment that will maximise the Researcher's learning in the interests of his or her workplace. This includes:

- discussion of the degree and joint expectations;
- negotiation of learning activities appropriate to the Researcher and his or her role in the organisation;
- supporting the sharing of effective practice;
- supporting the action enquiry and reflective practice encouraged by the degree.

At the end of the period of study, the Researcher will exhibit the findings of their research to their place of work. This makes it imperative that support is provided from within the organisation. In some cases, Researchers have been asked to take seminars with staff already, prompted

by the workplace advocate. Researchers have been required to formally record and minute meetings and to share these with their learning facilitator.

### **Researcher experience of the advocate**

Many Researchers found no problem in identifying an advocate, indeed the scheme formalised what already existed, and often complemented the appraisal/performance management systems.

One reported that,

I work in a large junior school and am lucky in that I have a very supportive Head, Deputy and close working colleague who are all extremely supportive of my professional development. I suppose my Head would be a natural choice as she and I have already discussed the degree and our expectations and how it fits in with the development of the school.

Others initially were wary of making demands of hard-pressed colleagues, some finding unexpected enthusiasm for the role when it was eventually suggested. Others though, for a variety of reasons, found a workplace advocate difficult to find. These included working for themselves or for a variety of organisations, not being able to enthuse colleagues and managers, and difficult working-relationship issues.

### **Collaborative discourse in learning communities**

Harasim *et al.* argued, as long ago as 1995, that online communication was emerging as a major educational force, providing opportunities for communication, collaboration and knowledge building, all of which are hallmarks of lifelong learning. Considering the rapid change in technology over that period, this view may have been somewhat optimistic as far as learning in higher education in the UK is concerned.

Learning in an Ultraversity's online environment is through facilitated conversations between participants, sharing information and ideas, and asking each other questions. The work builds from broadly social constructivist learning theory as articulated by Lave and Wenger (1991) and Wenger (1998).

Ultraversity Researchers communicate using the FirstClass software platform. All Researchers belong to the overarching 'Ultraversity Community' (Figure 3) where everyone can contribute to discussions. The second intake of Researchers will also join this space. Break-out conferences and discussions, beyond the programme of modules, have been organised for news, social events and a Christian Union. Discussions include conference etiquette and rules (on for example bad language), the environment, testing in education, indeed all manner of things related to both work and life.

The first cohort are members of 'Cohort One Community' (Figure 4) which consists of a communal space and smaller learning sets where Researchers are joined by two facilitators who discuss issues in more intimate settings.

One Researcher has created an independent, 'Yahoo' discussion group, originally for the purpose of communicating over the summer break. This has developed into a large membership where Researchers can talk to each other apart from the learning facilitators. This has been encouraged, and links to this and other Researcher web sites have been posted on the official Ultraversity web site (Figure 5).

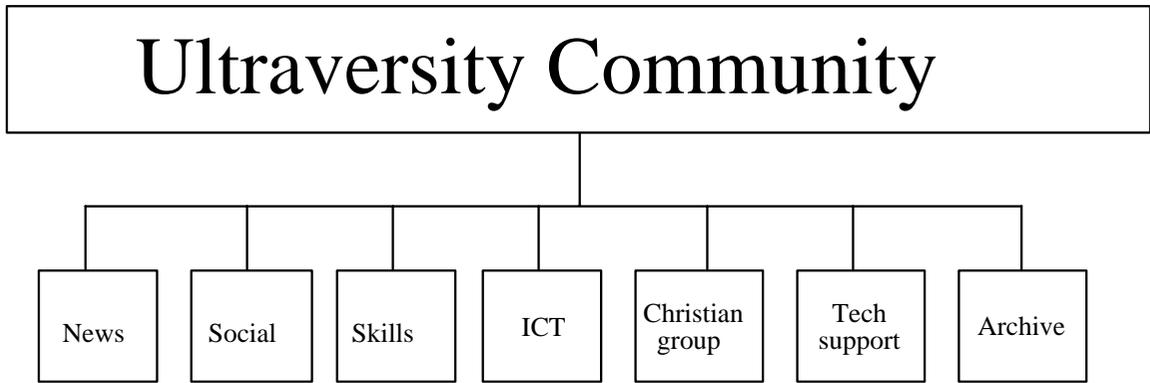


Figure 3. The 'Ultraversity Community'

### Researcher experience of the learning communities

Discussions in the community are extremely active even in the experiences of Ultralab online communities. Community discussion, as a way of learning, has been very well received by students and discussions are engaging, vibrant and active. Topics discussed include clarification about the course and assignments, sharing ideas and approaches, and discussing key concepts like reflective practice, as already described earlier in this article. Other issues emerge such as the policies for social inclusion and behaviour management of children in schools. Researchers suggest and recommend reading to each other.

The opportunity for networking has been valuable for some. While discussing aspects of the work, one Researcher asked:

Just after Christmas I started an adult (ICT) class at one of the primary schools I work at. The course is aimed to give parents basic knowledge of using a computer. I've thought about using this as my action enquiry, do you think this is a suitable enquiry?

This was returned with:

Sorry I can't answer your question about action enquiry but I am very interested in your experiences because there will be a similar scheme starting up in my school after Easter. This is being organised by

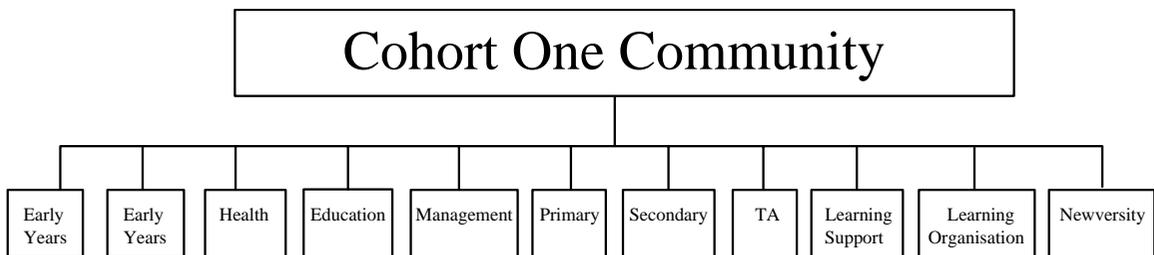


Figure 4. The 'Cohort One Community'

The screenshot shows the website for ultrastudents.co.uk, which is associated with the Ultraversity Researchers' discussion group. The page features a navigation bar with links for welcome, join, bookclub, resources, students, wiki pages, and news. Below the navigation bar, there is a sub-header: "ultrastudents.co.uk is the ultraversity researchers' website, associated with the ultrastudents e-mail list".

The main content area is divided into several sections, each with a corresponding button on the right:

- welcome:** A paragraph explaining the site's history and purpose, followed by a "join" button.
- philosophy:** A paragraph describing the group's cooperative nature, followed by a "resources" button.
- resources:** A paragraph about a growing collection of links to websites, followed by a "bookclub" button.
- Reviews of books:** A paragraph about links to books available through Amazon, followed by a "students" button.
- Links to ultrastudents websites, blogs and shared coursework here.....** A paragraph about help with publishing work, followed by a "wiki pages" button.
- What is a wiki?** A paragraph explaining what a wiki is, followed by a "Student Reps Wiki page" link.
- Student Reps:** A paragraph about student representatives, followed by a "news" button.

At the bottom of the page, there is a link to "up to date site news and course news ( hopefully ) ."

Figure 5. The Ultraversity Researchers' discussion group

the community worker as a 'family learning' session but in effect I think it will probably mean me teaching a few parents basic IT on a Monday morning.

So I suppose all I'm asking is how did it go, what are the pitfalls and benefits. Feel free to drop in at the ICT Community if you'd like to share this with other ICT teachers who don't happen to be in this group.

A main strength of the learning programme was identified as the community discussion, one Researcher saying:

I think the communication between members in the community was important. Everyone able to share their anxieties with others—Morale support. Having an individual learning plan to help keep on track was important for me. I will do this again. And of course knowing there was a friendly facilitator that could be contacted was comforting. I think one of the main strengths of the programme for me was the need to converse with outside agencies on the same level and indeed the senior staff at school, forcing me to take more control over my position at school.

I am delighted that we are all working as a team, and we have only known each other ONLINE for 8 to 12 weeks (wow)!

The discussions between researcher and facilitator, and researcher and researcher perhaps mirror what one might expect in many higher education programmes. However, this case study, it should be remembered, exists completely online within a community of researchers, and at a distance from each other. Collaborative discussion plays a central role in the learning activities. The dialogue moves beyond simple requests for information and support. There are no 'lectures'. The meaning of key concepts is negotiated, with the facilitator ideally present as support, but not as 'expert'.

In a conversation with her facilitator during which she gave permission for her words to be used, the Researcher quoted above exploring the meaning of double-loop reflection said that after the dialogue which occurred in response to her posting, she 'was prompted to rethink my understanding ... I thought I knew what double loop was, it made quite a difference to my report'.

She also said:

My personal view is that [community discussion] works best when LFs [learning facilitators] give the occasional prompt (look at how some of your postings have started some good discussions ILM Parties, Double Loop).

As discussed in Bradshaw *et al.* (2004), even with this sense of community, there are times when Researchers can feel isolated. They often need additional support from the learning facilitator in the form of phone calls, emails and online synchronous chats.

### **The hot seat for expert witnesses**

The community platform provides a forum for one special type of discussion with expert witnesses, who can be interrogated by Researchers. Expert guests are invited to share discourse for two-week periods. In this way Researchers are given access to specialists in a unique way. They can choose to merely read the discussions, or direct the conversation to areas in which they hold a particular interest. 'Hotseats' have been arranged to discuss the workplace advocate role, early years, teaching assistant role and other key issues.

### **Early indications on hotseating expert witnesses**

Early indications are of a tremendous success in generating questions and debate. The environment in FirstClass has not proved to be the easiest one for this sort of learning activity. Or perhaps the novelty with the cohort may be an issue here. The dangers are found to be:

- too many contributions overwhelmed the guest and readers;
- participants may appear not to be reading previous answers;
- repetition of questions.

Further development of Researcher skills in using the platform and in tutor instruction in the use of the tools is indicated. Alternatively, a web-based alternative 'hotseating' tool being developed by the technical team may provide a solution to these problems.

## **Conclusions**

The innovative approach to learning being developed by the degree team is providing opportunities for people who have not been able to undertake learning in HE previously. In the main, Researcher reaction is enthusiastic about the experience. However, it should be said the approach is not for everyone. This confirms Stephenson's view that the attitudes and experience of the learner is a key variable in the success of online learning (Stephenson, 2001).

The findings, thus far, show a need for technology to be developed to support the learning process. Thus, the portfolio tools, the shared learning plan, the action research tool, the blog/learning journal and indeed the web site are just some of the tools being developed to support the online learning process. Having a high-quality technical team associated with the learning support team enables this tool development to meet the demands of the pedagogy.

The programme illustrates that distance is no bar to collaborative learning. Through the advocate in the workplace, the action learning sets, the facilitation groups, subject expert hotseats and the cohort as a whole, support structures can be built for learning. Dialogue about learning can be developed from a distance using the web-based and other new technologies. Learners should not and do not feel isolated, compartmentalised or lonely individual figures ploughing through the course content alone.

In the formal arena of a degree pathway, the online learning approach has clarified the nature of learning objects for content and learning objects that focus on Researcher processes of learning. Hence, there is some 'content' in the form of explanation of reflective practice, action research or online leaning. However, much of this repeats material, indeed links with material already found on the World Wide Web. Instruction on Researcher processes and interactive documents between learners and facilitators form a more significant category of learning object emphasising stages in the learning process.

The project has indicated ways in which tutor-led learning can be developed into Researcher-led learning by providing spaces for negotiation, contextualisation and ensuring learning is 'situated' in a work context. The Researcher makes the generic learning activities relevant to their workplace.

Online learning does not mean a diet of planned, formal learning opportunities alone. There is a great deal of opportunity for Researchers to create their own learning agenda, including an informal, alternative curriculum of discussions and interests beyond the programme modules. If Researchers wish to discuss art, religion or politics with their peers, they can if they are given this facility. In this respect online learning can be a whole experience as one would expect a face-to-face programme to be.

This research suggests that the pedagogy of online learning cannot claim to be completely new or different. However, the emphasis, and skills of the facilitator in maximising the opportunity are specialised and honed. Moreover, there is much to do in the field of developing tools to enable good pedagogy to develop in an online environment.

## **Notes on contributors**

Gina Revill works for Ultralab and is currently working as a learning facilitator with the Ultraversity project, an undergraduate research degree programme for those in full-time

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