Distance travelled: supporting women returning to STEM careers

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Distance travelled: supporting women returning to STEM careers

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Between 2001 and 2012, the Open University ran an online course to support women graduates, engineers and technicians who had taken a break from their careers to take care of children or other responsibilities. The course was aimed at women returning to all fields of technology, engineering and science (TES). The study was undertaken as part of the EU funded "Return to Science" project and the "Return to Science and Engineering: A National Service" (Return to Science) which aimed to better inform about the large number of women with high level qualifications in STEM subjects who would not return to the sector after a career break. This resulted in the funding of a specific UK-wide strategy campaign which was delivered through a series of online distance-learning courses run by the UK Open University (OU).

The focus of the women returning to STEM graduates are women whose careers were interrupted for a period of one or more years, to look after children or other responsibilities, and who were now seeking to return to the workplace by taking a role that may be lower in status or pay.

The design of the course was based on the OU's extensive experience of distance learning and what learnt by the 2005 "Return to Science" project and innovative learning technologies. The OU model was developed so that it could be adapted around other career breakers who may be able to attend the course due to their geographical location. Participants collaborated in an online learning community and were able to access resources such as online learning materials and be able to use the "workplace buddy" scheme. The course ended with a project on the development of an online distance learning course run by the OU.

Funding from the EU Equal programme enabled additional support services to complement the action programme. These included informal groups and networking events in local areas and the use of external expertise. These elements were carefully planned to ensure that the online learning experience would be as relevant, flexible and accessible as possible. This resulted in the development of an online learning experience that was able to be accessed from anywhere and at any time.

The national partnership (UK nation) has worked closely on the first few months of the course, creating an integrated approach capable of responding to the changing expectations and requirements of the participants.

Innovative learning technologies to enhance social presence: Tutorial in Second Life

We carried out 23 in-depth interviews examining factors leading to reported outcomes which were analysed using an employability framework (McQuaid and Lindsey 2000). Social explanations of employment and unemployment focus solely on either supply-side or demand-side factors. This analysis uses a more holistic framework that includes individual factors, personal circumstances and external factors.

A postal survey was sent to 165 women who had taken the Return to Science course in 2005/6. They were all graduates in STEM subjects who were looking to return after a career break and had given their permission to be part of a longitudinal follow up study and to be contacted from time to time. There were 91 responses (55% response rate). Of these 63% were in employment or self-employed, and only 5 unemployed.

After a 10 year career break to look after two children Rajni has now returned to a lab-based science career.

The project team have developed an estimated "workplace" tool to support students with employability. The team have been in discussion with the Centre for Inclusion and Curriculum and the Careers Advisory department about possible ways to use this animated racoonce to support university strategic plans and help meet targets for student engagement with employability issues.

The "project has been an innovative" in many respects - delivery, scope and partnerships.

The feedback from the participants have been very positive. They are currently working on the second year of the course and are looking forward to the next few months of the course and are already networking and other events in their area. Local activities continued to be provided from 2004 to 2011 by the UKRC regional hubs and national centres.

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