

Sociologies of Health & Illness E-Learning Databank (SHIELD)

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Summary

SHIELD¹ was an interdisciplinary project, building on the success of the innovative Medical Sociology Interactive² Cambridge course, to collaboratively produce a collection of eLearning resources to support teaching and learning in sociologies of health and illness. The project draws on expert knowledge, transforming it into high quality interactive multimedia resources. Each resource, or reusable learning object (RLO) explains/explores a 'stand-alone' concept or idea.

The resulting databank of e-learning resources is available on-line free of charge, and is promoted and disseminated to the wider academic community. Student evaluations have also been collected and analysed and the results form part of this report.

Activities

SHIELD used the production methods pioneered by Universities' Collaboration in eLearning³ (UCeL). This consists of a virtual production line with documentation for each step of the process:

- unlock content – expert knowledge is captured in a word doc. template
- edit – text is edited into spoken English
- media ingredients – images, audio, video, animations etc - are assembled
- development – RLO is developed in Macromedia Director, Flash and Dreamweaver
- tech check – RLO is tested to ensure full functionality
- delivery – RLO is delivered to the web
- student use and evaluation – results are collected and analysed

The subject experts were recruited from the Social & Political Sciences Department⁴ at Cambridge - Professor Bryan Turner, Dr Darin Weinberg and Dr Kath Maguire who all specialise in the Sociology of the Body or Health and Illness. Bryan and Darin were very keen to embrace new teaching and learning practices and welcomed the opportunity not only to incorporate these materials into their practice, but also to have creative input into their development. Initial discussions identified a number of topics as suitable for development, based on both teaching and learning need and the subject matter itself – how reusable would it be and how readily could visual and interactive resources be found or created to make it engaging?

Using the existing Medical Sociology Interactive site, it was proposed to disaggregate some of the lecture length modules, updating where necessary (for instance, the old social classifications had been replaced with the NS-SEC) and develop these new materials as reusable learning objects.

¹ www.uce.ac.uk/shield/

² www.uce.ac.uk/medsoc/

³ www.uce.ac.uk

⁴ www.sps.cam.ac.uk

Kath Maguire conducted a thorough review of the existing site, cataloguing sections suitable for RLO development. She also noted sections that required updating or altering. Once RLO candidates were identified, Kath also added references, bibliographies, glossary terms, web URLs - any additional resources to add value.

Bryan and Darin identified additional subject areas requiring resource development. The RLO specification and support notes documents aided the development process and a bank of potential RLOs was quickly assembled. Review continued for a two-month period whereupon development of RLOs commenced. The project website was set up which housed all the documentation as well as the resources.

The project suffered a set-back during these early stages through illness, but was brought back on track after an extension was granted. The original timescale was from 1 July to 31 December 2002. It was delivered on time to the new schedule (31 December 2003), although a year later than originally projected.

Out of this preliminary work, Kath Maguire created the specifications for 8 RLOs, based on the UCeL template. These were:

- Parsons' sick role
- Doctor/patient relations
- Social class
- The Black report and inequalities in health
- Gender & health
- Social capital
- Medicalisation
- Death

Bryan Turner and Darin Weinberg shared the editorial role and also offered a cohort of students to test and evaluate the resultant RLOs. They were able to make valuable suggestions based on how the completed RLOs would be used in practice. SPS was accustomed to teaching medical students as well as sociologists and this allowed a very effective multidisciplinary collaboration.

The RLOs were initially designed, developed and tested by Dawn Leeder, project PI. In the later stages, Alan Leeder was brought in part-time on a freelance basis to accelerate production as Dawn focussed on project management, presentations and reporting. Interactive multimedia is very time-consuming to produce and this presented the project with some challenges (see below).

The nature of the content also presented some interesting problems. Sociology is a discursive subject and the academics and developers had to find creative ways of transforming the material into multimedia and finding ways to encourage students to interactively engage. The developers tried to bring a televisual look and feel to the RLOs through the use of high quality images. There already existed a series of video clips illustrating the four types of doctor/patient relationship and these were reused to good effect. New materials were created and blended with the old to try to present a rich learning experience. The developers tapped the experts' knowledge to build in many pauses for reflective thought with questions designed to encourage the students to think more deeply about the issues the material raised and to have an active rather than a passive learning experience.

The resulting collection was evaluated (using a standard UCeL evaluation tool comprising 29 structured questions) by a cohort of students on the “Medicine, Body and Society” course. These were mainly 3rd year SPS students although there were some Medics.

Outcomes

The SHIELD website contains the 4 finished RLOs and the 8 specifications plus all the project documentation in both word and pdf formats:

- Core documents
 - Original Project Bid
 - Activity chart with timelines
 - Progress report
- Evaluation
 - RLO evaluation questionnaire
- Learner documentation
 - SHIELD User guide
- Steering group meetings
 - Minutes of first steering group meeting
 - Agenda - second steering group meeting
 - Minutes of second steering group meeting
 - Minutes of third steering group meeting
 - Minutes of fourth steering group meeting
 - Minutes of fifth steering group meeting
 - Minutes of sixth steering group meeting
- RLO development
 - RLO specification
 - RLO spec support notes
- Powerpoint presentations
 - Creating a Sociologies of Health and Illness eLearning Databank
 - Reusable Learning Objects in Practice

All these documents are open source and freely downloadable from the documentation page on the website⁵. Project team details including email addresses are available on the Project Team page⁶.

The project has been presented at two events organised by C-SAP: a C&IT Showcase at Birmingham University on 29 January 2003 and a Departmental Link Workshop at City University London on 9 December 2003. It will also be showcased at the C-SAP conference (also in Birmingham) on 19 March 2004. SHIELD is also widely disseminated throughout the UCeL project, both amongst collaborators and at national workshops.

The project has generated some interesting lessons for the team as well as the students. 4 RLOs out of the 8 specifications have been fully developed. It was not possible and, with hindsight, not feasible in the modest scale of the project, to transform all 8 specs into fully functional multimedia. A decision was taken by the PI mid-way through the project that 4 high quality multimedia RLOs would be better than 8 low-quality or half-

⁵ <http://www.ucel.ac.uk/shield/docs.html>

⁶ <http://www.ucel.ac.uk/shield/team.html>

completed ones. The remaining 4 specifications can subsequently be developed should the opportunity arise, and the content exists in textual format in the meantime.

A key issue is the time taken to produce the resources. Each RLO has taken approximately 5 days to produce the specification; 3 days to edit and produce the media ingredients including the narration; 10 working days to develop; and 1 further day to upload to the website and test. This makes a total of 19 days for each RLO or 76 person working days for the 4 RLOs that have been produced. Even at a modest estimate of £100 per working day (and leaving aside the time taken for evaluations, presentations and report writing), it is little wonder that only 4 out of the 8 planned have been produced on a total project budget of just under £5,000. In fact these 4 RLOs would not have been achievable without some parallel activities feeding into the production process. This is an important finding and will inform future funding bids; it is clear that multimedia is time-consuming and expensive to produce and therefore sharing and broad reusability need to be maximised to enhance cost-effectiveness.

Because the project is evolutionary and is being informed by the wider UCeL collaboration, the RLOs themselves have changed and become more refined as the project has progressed. For instance, a navigation bar now features in each of the embedded media components of the 2 later RLOs (Black Report and Doctor/Patient Relations). This device was introduced as a result of evaluation feedback to improve navigability and user control. It is not feasible at this stage to go back to the previous 2 RLOs to update them, but it may be in the future.

Nevertheless, the team are satisfied with the results, and student evaluations seem to bear this out. The RLOs are seen as a valued part of the learning mix and continued use will ensure they are embedded into practice. Students responded to 29 structured questions to determine how comfortable they were using computers (in general, they were very comfortable – perhaps a little surprising for social science students); how easy they found the RLOs to use and navigate; whether they liked the look and feel of the RLOs; and whether they found the content to be appropriate and pitched at the right level. They found the RLOs very easy to use and to navigate; they liked being able to access the RLOs whenever they wanted; they liked being able to print out a text version (previous evaluations of Medical Sociology Interactive had borne this out); and they found the RLOs well-structured and easy to follow.

Implications

RLOs have the power to transform teaching and learning practice in a number of ways. By creating them (or just *thinking* about the processes of creating them), academic staff must critically reflect on their own knowledge and cast it in a different light. This process leads to a deeper understanding of the specialist knowledge area and the ways in which it is mediated, taught and learned. Bridges also must be built between subject experts, multimedia developers and learners and each brings with them a different perspective, again, shedding a different light on the material and helping each other gain a better understanding from a new viewpoint. Creation and use of the RLOs themselves helps to improve IT skills, encourages participants to embrace innovative methods and embed new ways of working into practice. Learner input is valued and the formative evaluations provided feed back into the product development lifecycle making the RLOs better and fitter for purpose. Because all parties engage with this new and experimental area from a similar starting point there is much better interaction than in the traditional

teacher/learner relationship; here everyone is the learner. The power of multidisciplinary collaboration is recognised and harnessed to good effect. The sheer existence of a collection of multimedia resources is a significant driver for bandwidth provision, with all the attendant advantages that can bring. This all has significant implications for Faculty funding as the ringfences begin to fall away. It also means that issues of ownership are no longer cut and dried. Reusability means that content must be shareable and reusable not only in the context in which it was conceived but also in any context others may subsequently deem appropriate; a brave new way of learning.

Resources

There has been and currently still is considerable disagreement among educators and technologists alike as to what actually constitutes a RLO. UCeL is a practical and pragmatic project creating eLearning resources to support teaching and learning and has therefore defined a RLO for its own purposes:

“A reusable learning object is a self-contained ‘chunk’ of interactive web-based learning, comprising a variety of media ingredients that are combined to support a single learning objective”.

A UCeL RLO then, is based on a single learning objective and comprises a number of web pages (typically between 3 and 7) each with an embedded multimedia “movie” set adjacent to the text (which is a transcript of the narration contained in the movie). User input is encouraged at various stages and each RLO contains some kind of activity where the learner interacts with the material in order to better understand it. Each RLO finishes with a self-assessment and some links to other resources supporting the learning objective.

Each RLO is accompanied by a printable text-based version which contains all of the information although, because it is static, it is not possible to include all the interactions contained in the RLO itself.

The SHIELD site also contains the production and evaluation tools in the form of word-based templates. These are the documents used to construct the RLOs in the first instance and are open-source and freely downloadable.

References

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