



UK CENTRE FOR

bioscience



Event Report: Enhancing Teaching and Learning in the Biosciences with Practical and Fieldwork resources

Building 188
University College, London
31 March 2010

There is always a demand for learning and teaching resources that can be readily adopted for use in other institutions beyond the point of origin. There are inevitably restrictions and barriers to this adoption and sharing, but they are being reduced through the initiative of Open Educational Resources (OER). This event was to disseminate the experiences of projects in the biosciences that have been dealing specifically with creating OER for Practical and Fieldwork classes.

The Centre for Bioscience undertook a pilot project as part of the JISC's subject-strand for the Open Educational Resources programme in 2009/2010. Working with 10 partner institutions the Centre has overseen the production of a wide range of Open Educational Resources in terms of content and delivery mechanisms.

This event also offered an opportunity to showcase the eBiolabs project from the University of Bristol and compare the advantages and disadvantages to the approaches used.

What others had to say about the event:

"Really excellent, thought provoking day"

"Went beyond my expectations, really loving some of the innovations, which I will be using."

"It will totally change the way I deliver lectures, especially in practicals."

"Great range of development displayed. I got a better idea of what the teaching community is doing."



Developing an Interactive Laboratory and Fieldwork manual for the Biosciences

David Adams, UK Centre for Bioscience

David Adams introduced the event by providing an overview of the Centre's work on practical and fieldwork resources as part of the Open Educational Resources programme, and work with the community in general as it is a key activity for the Centre. He outlined some of the recent work in the area which was to be presented during the day and suggested the Centre is uniquely placed to influence the future of practical and field work across the UK through involvement in a variety of different opportunities.

Transforming the delivery of laboratory-based bioscience course with eBioLabs

Gus Cameron of the University of Bristol gave an overview of their work creating and delivering content through eBioLabs, a dynamic and interactive manual to complement practical work teaching in the biosciences. Gus spoke of their ability to streamline delivery of practical classes by providing much of the pre-lab information upfront, in a much more engaging manner than previously employed.

eBioLabs is currently available only for Bristol students, but a demonstration of the system is available here: <http://ebiolabs.learnsci.co.uk/> and Gus is happy to discuss the potential to replicate such a system at other institutions.

New ways to produce and develop educational resources

Terry McAndrew spoke in detail about the Centre's Open Educational Resources project, gave an explanation of the manner of the Centre's collaboration with its ten partner institutions and the discussed project's interim findings so far.

http://www.bioscience.heacademy.ac.uk/ftp/events/uclouer310310/TMcAndrew_UCL_OER_Intro.ppt

Open resources for practical teaching

A selection of the Centre's OER project partners gave presentations on their individual contributions, including the development and repurposing of a set of cancer biology-related Flash activities, the conversion of a large collection of medical microbiology resources for first-year undergraduate teaching, a series of practical field ecology videos and a trio of virtual laboratories to support biochemistry. These examples were received very positively by the attendees, and the complete collections of each are available to download and reuse from the Centre's website: <http://www.bioscience.heacademy.ac.uk/resources/oer/>

Practical workshop – using web-based open applications for practical teaching

The afternoon's session gave delegates a great opportunity to get hands-on with the web-based resources that were being presented by the remaining project partners. Running the presentations live in a computer cluster allowed the attendees to explore each resource as it was demonstrated, in real time with each presenter, as resources were shown on topics including genetic analysis (SBLi), researching an influenza outbreak, evolutionary history and the virtual rocky shore, an interactive tool to support teaching of experimental design.

Again, these resources are freely accessible to use and reuse from the Centre's website: <http://www.bioscience.heacademy.ac.uk/resources/oer/>

Discussion and Reflections

David Adams led a lively discussion around the potential for the future of OER, and the challenges surrounding the production and release of open content. Concerns such as a lack of adequate reward and recognition, as well as issues of funding to support the time required were raised, along with a general positivity and enthusiasm regarding the quality and breadth of open materials that had been demonstrated throughout the day. Pledges were offered from delegates to explore the materials available, with a view to incorporating them into the following year's teaching, and to examine their own materials, to consider releasing them under the OER banner.

David sees the Centre as being in a favourable position to help identify, coordinate and disseminate examples of effective OER practices across the UK. He also appreciates the competition existing in current academic workloads as well as ownership issues which might outweigh perceived benefits in participating in such a public way, and knows there is a great deal of work yet to do for the move to Open Educational Resources to sustain.

If you are interested in becoming involved with the Centre's OER work, please contact the Centre at heabioscience@leeds.ac.uk

The Event Programme and information from speakers can be found in the Event Report at: <http://www.bioscience.heacademy.ac.uk/events/UCL0ER310310.aspx>