

WORLDWIDE DAY IN SCIENCE

LLOCATE TIME FOR YOUR STUDENTS TO WATCH a scientist on 15 April 2004 and let them become part of the *Worldwide Day in Science*. The students then need to mould that day's observations into short, appealing, multimedia stories and mount them on a website, a site that links such observations from around the world. It is that simple.

The day engages students in a range of 'best practice' learning strategies — problem-based learning, use of global networks of students, and multimedia. The students get a taste of where a career in science might take them. They build the professional skills that are in demand, according to surveys of employers and recent science graduates — oral and written communication, teamwork, and managerial abilities.

A local pilot, *A day in the Life Sciences in Australia*, has been successfully completed by 82 second-year Science undergraduates at the University of New South Wales in Sydney. Students report:

"The project seemed quite over-whelming at first; however it turned out to be a thoroughly enjoyable experience."

"Reflective assessments were helpful. I will have fond memories of this course."

"A great experience. It really gave me a 'preview' of how things might be in the future. It also gave me a rough idea of what to expect and how to deal with teamwork at my future workplace. I will fully encourage anyone to take the course."

The course coordinator states, "It was the easiest course I taught. The students did all the work."

Hundreds of copies of the resulting CD-ROM are being distributed to high schools. An online version of the students' product (sans video due to download times) can be seen at: http://www.scom.unsw.edu.au/life/index.htm.

Students engaged in the *Worldwide Day in Science* will work much like the photographers capturing *A Day in the Life of India.* Our multimedia format, however, permits photos and text to be accompanied by voice and video. The website will reveal to an audience of high school students how scientists the world over comb the wilderness for lizards, grow microbes in the laboratory, or scan the heavens.

The Worldwide Day in Science process begins when students nominate for roles, whose duties the students need to discover for themselves. Planners and team managers have to guide student reporters, producers, editors, and technical production staff. Basically, the reporters and producers develop multimedia stories that the editors and production staff then tailor for addition to the Worldwide Day in Science website.

The students learn how to work in teams, hierarchies, and production lines; how to handle concrete deadlines; how to communicate effectively and delegate responsibility; and how to deliver a professional product for public consumption. The challenge is daunting for some — wrestling with unanswered emails, missed meetings, ignored guidelines, and a lack of preparation. For most, it is an exciting window into what a botanist, psychologist, or astro-physicist does all day. All have the opportunity to become part of a worldwide network of scientists-in-the-making.

The international pilot of a *Worldwide Day in Science* is scheduled for February-June 2004. Universities from China, Spain, the Middle East, and North America have expressed interest (as of December 2004), in fields ranging from astrophysics and chemistry to food science. Further participants are welcome in this pilot, and broader involvement is sought for 2005. You can allocate a semester to it or just a single writing assignment. Experience in problem-based learning will make it easier for you to let the students make mistakes. Guidelines and examples from our pilot *Day in Science* are available online. Email me for access and the URL.

Dr Will Rifkin

University of New South Wales, Australia willrifkin@unsw.edu.au

DINE OUT ON WORK RELATED LEARNING

HE FDTL-3 PROJECT, *REAL WORLD*, HAS recently published its good practice guide on the implementation of work-related learning in agriculture, forestry, environment and organismal bioscience. With an ever-increasing emphasis on the employability of our graduates, *Dine Out on Work Related Learning* is a timely guide for those on the frontline of delivering quality teaching with an emphasis on developing

delivering quality teaching with an emphasis on developing the high level skills and knowledge that graduates need in an increasingly competitive job market.

Real World aims to support students to prepare for and, make the transition into, employment by improving work related learning (WRL) within the curriculum of QAA Unit 17 (Agriculture, Forestry and Agricultural Science) and elements of Unit 7 (Biology — Organismal Bioscience). The project developed a conceptual framework against which the delivery of WRL can be judged. The subsequent experience of WRL curriculum developments at the Higher Education Institutions (HEIs) in the project consortium and at a range of HEIs nationally has formed the basis of *Dine Out on Work Related Learning*.

Whether you are new to the world of WRL, or are looking for ideas to enhance existing practice, you will find something



<section-header><image><image><image><image><image><image><text>

here to tempt you. Designed like a menu to allow you to snack or feast. the guide's sections cover everything from the background and basics to delivery and assessment as well as how WRL can be used to enhance graduate employability. Underpinning the menu is an emphasis on sound pedagogical practice and the need to ensure

that WRL fits into the main cornerstones of curriculum design. All too often, employability is considered in isolation and the temptation is to 'bolt on' elements of skill development or to 'do' employability outside the context of the discipline. This guide outlines the integrated approaches adopted by a variety of HE institutions.

Work related learning goes well beyond the notion of placements and this guide covers a whole range of activities including using case studies, developing and organising student-led conferences, simulations as well as networking with professionals and business. The guide aims to provide straightforward advice on how to implement WRL and as such is packed with practical examples of the ways that academics have used WRL to enhance Higher Education curricula in biological and environmental disciplines. Although the material presented here is discipline-based, many of the lessons learned can be applied across the whole HE sector.

Two contrasting extended case studies form the dessert section. They include information about aims and objectives, teaching and learning methods, assessment and reflections on the successes and learning points for the academic staff involved in them, encompassing the four cornerstones of curriculum design and illustrating how a single module can provide a coherent package of WRL.

Final food for thought comes in the shape of WRL in the future. Issues such as progression, strategic learners, diversity and accessibility are considered in the context of WRL and employability and encourage you to plan for the use of WRL in your own institution in the future.

Presented in an easily digestible format, *Dine Out on Work Related Learning* takes a significant step towards cutting through the talk about WRL and delivering practical advice on how to make it real. If you would like a copy of the guide, please contact me at the address below.

Emma Barron University of Newcastle-upon-Tyne development@ncl.ac.uk

BEE-J: VOLUME 2

HE SECOND VOLUME OF BEE-J HAS NOW BEEN published. The articles are outlined below and available on our website (see http://bio.ltsn.ac.uk/ journal/vol2/). We also invite submissions for volume 3 of BEE-j, see the BEE-j website for further information, layout and submission guidelines.

ARTICLES

Research skills training for undergraduate researchers: the pedagogical approach of the STARS project. John A Finn & Anne C Crook, Johnstown Castle and University College Cork, Ireland

Making a Level Playing Field at Master's Level an application of self-directed learning. Lesley-Jane Eales-Reynolds, University of Surrey

The use and abuse of PowerPoint in Teaching and Learning in the Life Sciences: A Personal Overview. Allan Jones, University of Dundee

Evaluating University Masterclasses and School Visits as mechanisms for enhancing teaching and learning experiences for undergraduates and school pupils. A pilot study involving biotechnology students.

Angela Todd & Denis Murphy, University of Glamorgan

Evaluation tools for investigating the impact of assessment regimes on student learning. Evelyn Brown, Graham Gibbs & Chris Glover, The Open University

Multiple Choice Questions — a Reprieve. Ray Harper, University of Luton

Biology Before and After Bologna. Charles Susanne, Free University of Brussels

REVIEWS

Blueprint for computer assisted assessment. Allan Jones, University of Dundee

LETTER TO THE EDITOR

MCQ, EMSQ or multiple true/false questions? David Bender, University College London

Submissions for the next edition of BEE-j (May 2004) are now invited. The submission deadline is 31 March 2004.