

Parallel Session 21: Science week: evaluating experiences.

**WORLDWIDE DAY IN SCIENCE –STUDENTS’ SNAPSHOT
ON THE WEB**

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Abstract

On 15 April 2004, student reporters from Australia to Spain captured events in the world of the science in their locale. The scheme worked in 2003 with eighty-one university students in Sydney, Australia, so why not pilot the effort worldwide? Students learn about the daily life of a scientist, the global reach of science, and of their own ability to tell a tale of science, one good enough for publication. The website demonstrates how non-scientists can contribute to the appreciation of science through the use of stories. An audience of high school students learns about where a career in science might take them.

Key Words: global science event, world wide web

A New Way to Engage Young People with a Career in Science?

Science is a world-wide endeavour of increasing importance, yet enrolments in science at universities are declining. Arguments about as to why – insufficient information about career paths, alienating ways in which science is taught, an overly restrictive science curriculum, or perhaps, the practice of science just does not seem sufficiently interesting to the young. Science communicators in a variety of settings – research institutes, government, industry, science centres, museums, outreach programs, universities – are labouring to dispel misconceptions and a lack of information reaching young people about science and scientific careers. What more can be done with the limited time and resources available to science communicators and their scientist collaborators?

For the past two years, development has been under way on a global activity to reveal the day-to-day charms scientific work to university students. The university students will relay what they see to an audience of high school students who are considering different career paths. The project incorporates the drama of capturing a single day’s events, the scope of the world wide web, and the allure to students of working in multi-media to tell the stories that they capture. The undertaking is designed to make the university science curriculum more engaging and more ‘relevant’ for science students. Though

being initiated with university students, the project might ultimately involve contributions from school children and scientists, accounting for their own science experiences on the project's focal day. This activity is the World-Wide Day in Science.

This paper is an invitation to science communicators to help stimulate participation in the World-Wide Day in Science. The accompanying dialogue in the conference session can address first- and second-hand accounts of experiences of students in two of this year's participants – Pompeu Fabra University's postgraduate science communication program and the University of New South Wales's undergraduates in advanced life science.

What is the World-Wide Day in Science?

Did you assign your university students to watch a scientist on 15 April 2004, becoming part of the World-Wide Day in Science? Your students would have then needed to mould that day's observations into short, appealing, multi-media stories and mount them on a website, a site that on 1 June 2004 links such observations from around the world. It is that simple.

This effort engages science students in a range of 'best practice' learning strategies – problem-based learning, use of global networks of students, and multi-media. 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 (*eg*, by the Centre for the Study of Higher Education at the University of Melbourne) – oral and written communication, teamwork, and managerial abilities.

A local pilot, 'A day in the Life Sciences in Australia', has been successfully completed by eighty-two second-year science undergraduates at the University of New South Wales in Sydney. Students report: "The project seemed quite overwhelming 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 have been distributed to high schools as a career guide. An online version of the students' product (*sans* video due to download times) can be seen at: www.scom.unsw.edu.au/life/index.htm.

Students engaged in the World-Wide Day in Science work much like the photographers capturing events for the book, *A Day in the Life of India*. Our multi-media format, however, permits photos and text to be accompanied by voice and video. The resulting website reveals to an audience of high school students how scientists the world over comb the wilderness for lizards, grow microbes in the laboratory, and scan the heavens.

The World-Wide Day in Science process, as a whole-class project, 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 'post production' staff. Basically, the reporters and producers develop multi-media stories that the editors and post production staff then tailor for addition to a local website that gets linked to the international, World-Wide 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 e-mails, missed meetings, ignored guidelines, and a lack of preparation. For most, it is an exciting window into what a botanist, psychologist, or astrophysicist does all day. When their stories go online, all then have the opportunity to become part of a worldwide network of scientists-in-the-making, and they can share their experiences and insights.

The international pilot of a World-Wide Day in Science has been occurring February-June, 2004. Universities from Spain, the Middle East, South and North America, and Australia threw their hats in the ring (as at May 2004), with participating coordinators, lecturers and science communicators, coming from fields ranging from astrophysics and chemistry to food science and microbiology. Further participants and broader involvement are sought for 2005. Coordinators can allocate a semester to the project or just a single writing assignment. Experience in problem-based learning gives coordinators the fortitude to let the students make mistakes. Guidelines for coordinators and materials from our pilot, 2003, local 'Day in Science' are now available online at: www.science.unsw.edu.au/worldwide/wwds_index.asp.

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