

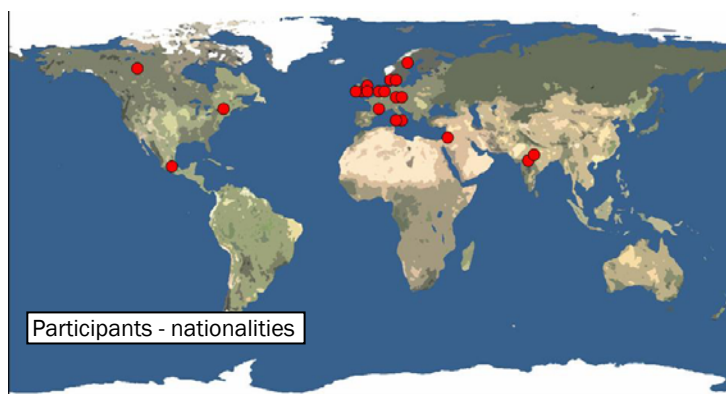
**Second Advanced Course on
Public Communication and Applied Ethics of Nanotechnology**

St Edmund Hall, Oxford University, 23 - 28 September 2007

Course Evaluation

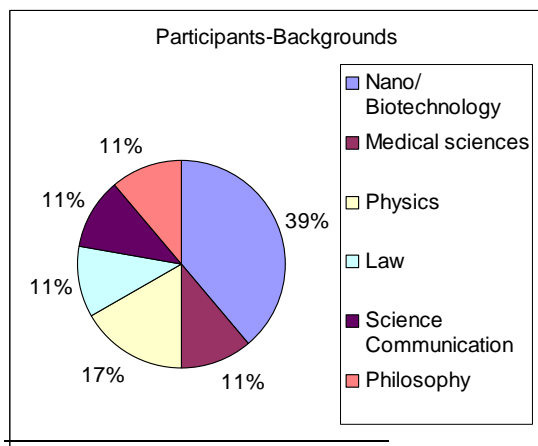
Introduction

This report summarises participants' feedback and evaluations of the Second Nanobio-RAISE Advanced Course held 23 - 28 September 2007 at St Edmund Hall in Oxford, UK. A total of 18 academia and policy representatives from Europe, North-America, Asia and Canada and with very diverse backgrounds¹ joined the course to discuss developments in nanotechnology and its ethical and social implications. The course provided leading experts in science, public relations and science communication, ethics, risk assessment and regulatory affairs in the nanotechnology field. Participants were trained in writing, presenting, debating and preparing communication plans and were familiarised with ethical and social issues in nanotechnology through debate sessions, role play and group work.



Feedback / evaluation

Participants were asked for their feedback both during the course by way of a mid-term evaluation and after, through feedback forms filled in at the end of the course. They evaluated the organisation, theoretical and practical programme and general aspects of the course very positively. Participants offered good suggestions for improvement which will be can be seen as an advice for the organisation of further courses like this one. The results of the evaluations and suggestions for improvement are summarised below.



¹ Approximately 2/3 of the participants were natural scientists and 1/3 were active in the 'ethical, legal and social aspects' of nanotechnology; 4/5 were working in academia and 1/5 in policy, with the following backgrounds: Nano/Biosciences and -technologies, Life Sciences, Biomedical Sciences, Medicine, Chemistry, Physics, Mathematics, Law, Science and Technology Studies, Philosophy, Ethics, Sociology and Literature Studies.

Mid-term evaluation

The mid-term evaluation was held on Wednesday 26 September in the afternoon and invited participants' general comments and suggestions as well as practical improvements for the remainder of the course. Participants showed their appreciation for the programme, the lecturers and the organisation. They valued the overall balance and quality of the programme and specifically welcomed the level of interaction and training exercises, but also offered concrete suggestions to improve the programme even further.

Although the quality of the programme was appreciated, most participants considered the time schedule too intensive. Lectures were scheduled from 09.00 until 21.30 each day without time off and the participants would have appreciated a free afternoon to visit Oxford or a tour as part of the programme.

The participants also had difficulties with conducting 'the communication plan' exercise. It was unclear to them what the learning objectives of the exercise were and if they had achieved them after their first presentation. They would have liked an example or best practices of a communication plan beforehand.

Further suggestions included:

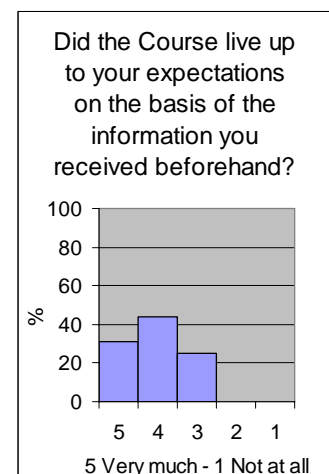
- more female lecturers in the programme;
- shorter lectures to relax the programme and a five-minute break between lectures;
- a *tour the table* instead of introductory presentations and the inclusion of participants' biographies in the course book;
- a lecturer from the University of Oxford;
- more interactive sessions like the debate session.

Feedback Forms - Results

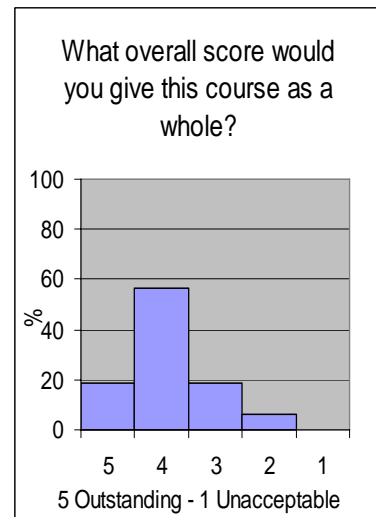
The feedback forms were completed at the end of the course. To the question '*Did the course live up to your expectations on the basis of the information you received beforehand?*', participants responded with an average of 4 out of 5. Overall they appreciated the quality and diversity of the lecturers and the balance between lectures and practical work.

Comments from participants:

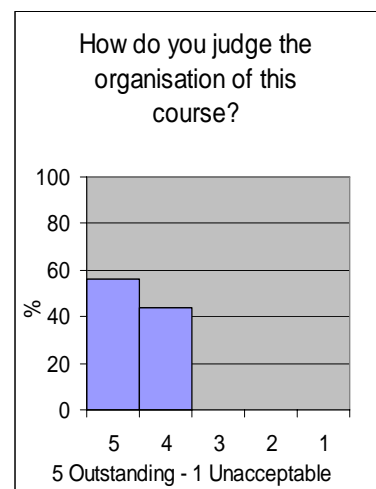
- *"Actually it overfilled my expectations, some brilliant lecturers and their ways of thinking and communications "* (PhD student in nanotechnology)
- *"Very good lectures on risk, ethics and communications together with funny and efficient practice."* (Professor in nanotechnology)
- *"I expected more lectures on societal aspects of nanotechnology"* (PhD student in ecology and regulations)



Responses to the question of 'What overall score would you give this course as a whole?' averaged 3.8 out of 5. Participants welcomed the integration of practical, hands-on approach to the range of complex theoretical issues in ethics and social sciences through interactive work such as the role playing exercise and the debate session (where participants discuss their own statements and views on nanotechnology). The communication plan was for most of the students a difficult and unclear exercise as they already indicated in the mid-term evaluation.

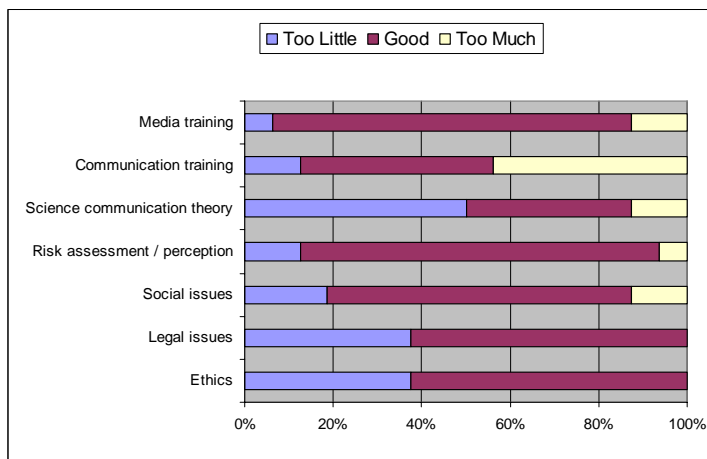


To the question "How do you judge the organisation of this course?" participants responded with an average of 4,5 out of 5. This shows a high appreciation for the course, but there were suggestions for improvement which will be summarised as future recommendations below. Most comments were directly related to the very busy time schedule, offering little time for the participants to reflect on the presentations or to ask personal questions to the lecturers or work on the communication exercise.



Participants enjoyed most of the group work and felt that there was enough time allocated for and assistance during the exercises.

Overall, participants found coverage of the main topics in the course well balanced but considered the programme too busy in general. Some commented that they would have liked more on the ethical and social issues in relation to Nanotechnology. Most agreed that more time could be spent on practical exercises, specifically the communication plan. It would have helped to repeat some of the exercise to correct earlier mistakes.



Comments from participants:

- Next time it would be nice to manage risk communication in a written exercise (PhD student in Science & Society)
- I guess it always depends on the background of the participants. I would choose more debate rather than two sessions for the communication plan (Master student Science, Technology & Society)
- Little bit more practical work to enable repeats and corrections (PhD student in nanotechnology)

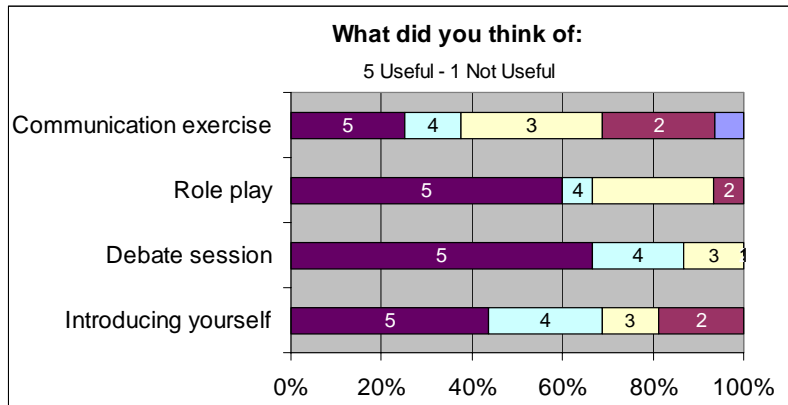
Participants on average spent one working day on the assignments before attending the course:

- 1,5 hours in preparation of their introductory presentation,
- 50 minutes on making statements for the debate session,
- 3,25 hours on preparing their press release for the media training and
- 2 hours to go through all the reading material.

Participants did comment they would have liked all the presentations to be included in the book. Most of the exercises were thought to be very useful, especially the debate session and the role play.

Comments from participants:

➤ *I would have preferred a little less group work. The communication plan took too long to develop* (PhD student in Environmental Engineering)



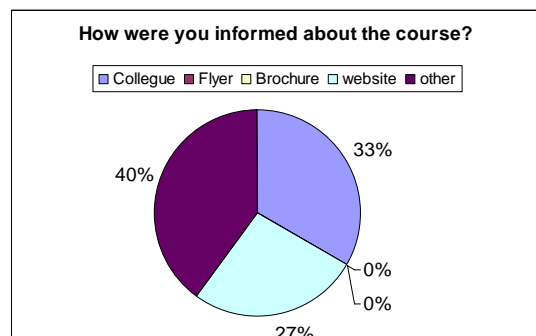
➤ *"The best was the media sessions I would give a 5"* (Professional doctorate trainee)

➤ *"Sometimes I would like to get more fundamental theories, like for the ethical issues"* (PhD student in Science & Society)

The total length of the course was generally considered appropriate, and participants were content with dinners. For the accommodation overall most participants were content but several participants would have very much appreciated a room with a private bathroom and shower. The time to be absent from their organisations did not present any major problems, although some had problems travelling to the UK. Participants were informed about the course primarily through colleagues and other means like newsletters or mailinglists.

Further suggestions for improvement:

- *"Appreciated some time for my self"* (Lecturer in science)
- *"More time required for the communication exercise"* (A general comment)



Improvements for other Advanced Courses

The evaluations and feedback can be used for the organisation of further courses. They will also be offered to the lecturers for their information. The following improvements are envisaged:

- relaxing the time schedule;
- less lecturers;
- have the course in Delft instead of Oxford;
- schedule a trip to a company;
- further increasing the level and quality of interactions among lecturers and participants through hands-on training, group work, role play and time for informal discussion, specifically the debate session and media training;
- record the radio interviews;
- no communication plan but a communication activity;
- include participants biographies in the course book;
- internet and printer facilities available for participants;
- break-out rooms available