



Science and Society: a new model to assess Public Understanding of Science and Ethics of Research

R. Azzaro Pulvirenti⁽¹⁾ and M. Baldi⁽²⁾

⁽¹⁾ Institute for Economic Research on Firms and Growth (CNR/CERIS), Rome (I), r.azzaro@ceris.cnr.it

⁽²⁾ Institute of Biometeorology (CNR/IBIMET), Rome – Italy, m.baldi@ibimet.cnr.it

Communicating science to the young - Future networks

Symposium Vienna Jan 31 – Feb 2, 2008

Motivation: Responsibility of Scientists to have a major role in promoting Public Understanding of Science and Ethics of Research as emphasized by the Italian Constitution and by EU FP6 and FP7

There is a lack not only of links between scientific policy and science, counseling and advertising, but also a lack of *trait-d'union* and trust between scientific community on one side and media, society and institutions on the other side. It's useful to give tools and occasions.

Two projects have been organized for high schools in Rome by CNR/Ceris with CNR/Ibimet et al.

CLISCET: Climate, Science and Ethics, 2004

LEDER: Alterum non laedere?, 2006

Goals of the two Projects:

- 1 – To check the degree of knowledge on specific topics
- 2 – Sensibilization on Science and Ethics
- 3 – To promote participation of science, society and institutions

Participating High Schools

(age 16-19)

Cliscet:

4 Italian schools
3 International (France, Spain, US)
Total = **148 students**
Male = 69, Female = 79

Leder:

8 Italian schools
4 International (France, Spain, UK, US)
Total: **212 students**
Male = 99, Female = 113

Questionnaires – Main Issues

- What is PUS?
- Sources of info
- Awareness on science and ethics
- Values of Science
- Knowledge in several topics from climate to environment, sustainable development, genome and new medicaments, genetics and procreation, staminal cells
- Themes to be treated in a future project



CLISCET



LEDER

Adopted Methodology

- a) contacts with high schools and meetings with teachers;
- b) dispensation by net of a 1th Questionnaire, to evaluate scientific knowledge personal opinions on scientific topics;
- c) dissemination of scientific information on the same topics, activation of discussion groups;
- d) meeting and debate at the CNR headquarter between scientists and public with active participation of students;
- e) dispensation via e-mail of a 2nd Questionnaire in order to survey again the knowledge and possible variations of interest and opinions;
- f) data analysis and publication of results by CNR researchers.

Major Results

The experiment was successful. There was a positive and active answer. Students have learned that:

- it is important to get the correct information
- scientists can give answers, however answers are not final
- it is necessary to focus on the relationship between science and institutions

Results show how the main aim of the project, i.e. to experiment a new methodology of dissemination, communication, and, possibly, of meditation, on issues related to the scientific findings in science, through the establishment of relationships between scientist and cultural institutions, schools, politicians, **has been successfully achieved, making the method a prototype to be adopted in the future with a wider audience in order to communicate research results on scientific issues of common interest and to develop personal skills of ethical reflection .**