



25-28 October 2006, Juelich, Germany

5-8 December 2006, Copenhagen, Denmark

The R flexivas[®] Seminar on Responsible Conduct of Research and Science Communication was organised within the framework of the European Projects BIORHIZ and CONSIDER for early career researchers – women and men.

Below are the **objectives** of the seminar and **feedback of assessment** by participants.

The objectives of the seminar were:

- ✓ to provide young researchers with the opportunity to exchange ideas and views related to issues in the Conduct of Science, in particular science communication, project building, ethics and supervision,
- ✓ to reflect on their own practice as researchers, future supervisors and teachers and to obtain further training in these areas,
- ✓ to allow all participants to benefit from the experience of their colleagues for the conduct of their research projects and their career development - in particular through practical hands-on workshops providing training in soft skills,
- ✓ to allow participants to meet with experts from different countries and to network.

The eight-day seminar comprised of:

- **One four-day “Creativity Workshop” - 25 - 28 October, Juelich Germany.**

Experts provided the conceptual and practical framework of the seminar, dealing with issues like the communication of science, ethics in the conduct of research, knowledge and project management. Two groups worked in parallel, each involving 12 early-career researchers; they were facilitated by four French experts-researchers. Participants were invited to work on

their own research projects, Identifying aims, issues, objectives, strategy and potential impact and working towards relevance, coherence and originality.

Practical problems were addressed, ranging from developing arguments to communicate the scientific and social interest of their research to ethics and the art of supervision. Facilitators enhanced dialogue, reflexivity, collective learning. In the process, participants were expected to develop and build “transferable and soft” skills. For a detailed description of the objectives and facilitation process, please visit the Réflexives® website <http://www.reflexives-lpr.org>

- **One four-day session on “Scientific Writing” – 5-8 December, Copenhagen, Denmark**

Practical exercises were based on participants’ written productions (abstracts, summaries, posters, introductions of scientific paper or proposals). The papers were reviewed collectively. A method for critical analysis was proposed and the participants practised, thus preparing to write clearly and concisely and to become skilled reviewers.

Seminar organisers and experts

The seminar was organized by **Joanne BERTAUX** (Darmstadt University, Germany) and **Frédéric HENRY** (Copenhagen University, Denmark) and **Arnaud Lanoue** (Jülich FGZ, Germany).

The programme was prepared by **Marie-Claude ROLAND**, Linguistics and Research Practices, Coordinator of Young Researchers’ Training Programme, French National Institute for Agricultural Research (INRA-Paris, France)

The experts were:

Joël CHADOEUF, is a research director from the department of Applied Mathematics and Informatics, INRA Avignon. His main interests are in statistical analysis of spatial patterns, geometrical statistics and the development of mathematical statistical models to describe spatial and spatio-temporal patterns in environmental and agricultural sciences.

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Frédéric GARCIA, PhD, is a research director from the department of Applied Mathematics and Informatics, INRA Toulouse. His research is in artificial Intelligence (planning, machine learning) with applications to agroecosystems modelling and management.

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François GOREAUD, PhD is a researcher at Cemagref (<http://www.cemagref.fr>), working at the laboratory of engineering for complex systems (LISC), Clermont-Ferrand. His research focuses on ecosystems modelling and spatial statistics.

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Pascal MONESTIEZ , PhD, is a research director from the department of Applied Mathematics and Informatics, INRA Avignon. His research interests are in methodological developments in spatial statistics and geostatistics, and the development of mathematical statistical models to describe spatial patterns in environmental sciences and ecology.

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Marie-Claude ROLAND, is a linguist with a PhD in Language Science and Didactics; a specialist in science communication, she has developed a methodology for building research projects and coordinates a training programme for young investigators and supervisors.

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The programme

Issues:

- The changing paradigm of science communication
- Quality in research and Responsible conduct of research
- Young researchers' training in transferable skills and career development

Aims: to train participants in the following:

- situating one's project in broader institute and industry perspectives: formulating a problem, research questions, hypotheses and project implications
- situating oneself in a team or an institution
- thinking creatively
- responsible conduct of research
- identifying and developing core skills (critical thinking, ability to conceptualize and to see the "big picture", to look forward and to organize own work well, etc)
- being effective reviewers/evaluators

Strategy:

- to open « spaces of transaction » facilitated by researchers trained in communication and facilitation
- to combine theoretical and practical approaches in “real work” situations
- to foster reflective practice and knowledge sharing

Public:

Phd Students, Postdocs and their supervisors, and researchers involved in BIORHIZ

Assistance to BOTH workshops is compulsory

I. Creativity Workshops (session I – 4 days)

1) Introduction: Issues in scientific communication and young researchers' training ; programme of the seminar

2) Workshops conducted in parallel - 12 participants maximum per workshop:

- Focusing on the construction of a research project: “from idea to project”. From the supervisor's subject to the PhD Student or Postdoc's research project.
- Identifying aims, issues, objectives, strategy and potential impact
- Working towards relevance, coherence and originality
- Fostering autonomy, collective learning, mutual understanding, communication among partners and disciplines

- Developing arguments, defending one's project, its implications both in the cognitive and social spheres
- Identifying competencies developed during the process

3) Methods and tools

- Work in real situations: work shall be done on participants' own projects
- Mind map tool and method
- Sharing knowledge, collective learning and active listening

Participants are expected to make full use of work done during the creativity workshop to prepare for the Writing Workshops.

II. Scientific Writing and Skill Development Workshops (session II – 4 days)

Writing Workshop: 2 days for each group

- (i) Standards and practices
- (ii) Scientific communication as “ordinary” communication
- (iii) Writing a top quality abstract
- (iv) Writing a research project and a scientific paper: content, structure, style
 - Choosing a message, polishing the title, selecting an acronym
 - Developing arguments
 - Structuring introduction and discussion of the paper
 - Writing effectively
- (v) Ethics in writing
- (vi) Identifying competencies developed during the process

Method and tools:

- Work in real situations: work shall be done on participants' own productions – abstracts, papers or projects: critical reading and analysis, and structuring.
- A method for critical reading and analysis will be presented
- The mindmap tool and method used in the creativity workshops will be used here to structure a piece of writing for effective communication
- Presentation of M.C Roland's “4 pillars of scientific writing”: tenses, modalities, clusters and topical structure

Participants are invited to send prior to the seminars or bring with them any personal or collective written production, either completed or in progress: abstract (conference, paper, project), full paper, project, progress report, etc.

For more information please contact:

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