How to build a sustainable soft skills training program for PhD candidates and researchers

The example of the University of Liège.
PROGRAM FOR TODAY

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Key figures about the University of Liège (1)

- More than 20,000 students
- 3,300 lecturers-researchers
- 4,600 foreign students
- 122 nationalities represented
- 70,000 living graduates
- more than 400 honorary doctors

A complete University

- 10 Faculties and 1 Business School
- 38 degree courses and 193 masters courses
- A network of relations covering more than 600 institutions throughout the world (of which 250 in Europe)
Key figures about the University of Liège (2)

Research

471 research units in all disciplines
20 large-scale inter-disciplinary research centres

Approx. 100 active spin-offs
Over 8,000 scientific publications and papers per year
One of the world leaders in Open Access/Open Science and Institutional Open Repository

Euraxess International Mobility Center
European Commission’ Label for « HR Excellence in research »

The University of Liège is a HRS4R acknowledged institution
R&D Administration
Soft skills transferable training program

Background of our project (since March 2015)

For a few years, the R&D Administration of the University of Liège (ULg) has set up a large panel of transferable skills trainings for its PhD-candidates.

Objective: helping PhD-candidates to develop their competencies and boost their career development, promote the acquisition of "soft skills" and additional qualifications.

In 2015, 40 existing training programs (exclusively addressed to PhD-candidates)

The same year, substantial work has been done regarding the (re)organisation, improvement, development and evaluation of our global training offer. We proceeded to meticulous evaluations of hundreds of satisfaction surveys from trainings sessions of the last five years, we developed our comprehension about PhD-candidates needs in terms of soft skills through extensive readings (surveys about researchers’ employability) and adapted our offer to the European recommendations.
Presentation of our training guide

Concretely our reflexion has been translated in:

7 axes of training
About 70 different trainings (entirely free for participants...)
From 1 hour to 4 days
In French and in English
From October to June
From 10 to 50 participants
Specific initiatives along the year with dedicated marketing:

For instance: 3 days training for new PhD-Candidates (seminar Pars-en-thèse)
1 annual workshop about the thematic « Ethics, Research & Society»
Major changes compared to previous versions of the catalogue

A) Extension of the target group

We decided to open our training sessions to all researchers:
from the early stage of research to supervisors/experienced researchers/professors.

3 main target audiences:
Doctoral students
PhD-holders and post-docs
Thesis supervisors, experienced researchers and professors
B) Scale linked to researchers career stage

To help our target audience to navigate within our training guide we established a scale corresponding to the different stages of the research career. This scale appears on the top left corner of each page of our catalogue. It details the target audience of each training.

- **L0** – Future PhD-candidates, PhD-candidates at a very early stage
- **L1** – PhD-candidates in their 1st or 2nd year
- **L2** – PhD-candidates from the 3rd year
- **L3** – PhD-holders and post-docs
- **L4** – Experienced researchers and professors

Some trainings are specifically addressed to early stage researcher, other to PhD-candidates finishing their thesis, others are open to all researchers.
PROJECT MANAGEMENT FOR PHD-CANDIDATE
TIPS & TOOLS TO SIMPLIFY YOUR DAILY LIFE

Objective
The thesis is a project. In order to optimise its management, why not use some management tools that are applied in other sectors? These tools can provide an overview of efficiency and productivity while developing the professional skills that will be valuable in any career.

Description
- Essentials of Project Management
- Project management methodology and basic tools associated (planning, prioritisation, risk management, ...)
- Understanding the importance of communication at each stage of the project
- Prepare, plan, manage and conclude your thesis in project management mode

Developed skills
PHD-Candidates will learn to develop their sense of organization, to prioritize tasks, to manage their time and the relationship with the research team.

Scientific Writing and Publishing

Description
The 2-day training is primarily intended for PhD-candidates and junior post-docs. It focuses on scientific writing and scientific publishing in exact sciences, and in applied biological and psychobiological sciences in particular. The training will consist of lectures and practical training with a variety of tools, tips and tricks.

The following topics will be covered: general structure of a paper, preparation of an outline, arguments and style of a scientific paper, framing of conclusions and conclusions, style and presentation of data and graphs, statistics and data analysis, editing and concluding of a publication.

Developed skills
The participant will learn how to select the appropriate journal for its publication, to adopt the correct style of a scientific paper, to acquire improved knowledge of the proper scientific English language and to be able to prepare proper graphs and tables.

Catalogue des formations transversales | 2016-2017
C) New training thematics

1) Start your research
2) Develop your research
3) Keep your professional project in mind
4) Leadership in research (NEW)
5) Communicate and disseminate your research
6) Open Science and Open research (NEW)
7) Ethics in research (NEW)

4 axes related to the stage of research
Axis 1 - Start your research

For Who? Future doctoral students, PhD-candidates at a very early stage

What’s in it? Information about the PhD, the life of a PhD-Candidate, its mobility (research period abroad), scientific production, professional attitude, tools to be better organized…

Objective? Get the keys to make a good start in research!
**Axis 2 - Develop your research**

**For who?** All the PhD-Candidates and researchers

**What's in it?** Answers about:
- How to manage a team?
- How to find funding for their research?
- How to highlight the result of their research?
- What about Intellectual propriety?
- How prevent risks in lab?
- Creative methods for scientific research?
- How to use the database PReCIS?
- How to best use statistics?
- …

**Objective?** Give researchers tools to succeed with their PhD project
Axe 3 - Keeping your professional project in mind

For who? PhD-Candidate finishing their thesis, new PhD holder
What’s in it? Answers about:
  - How to highlight the competencies they developed during their PhD?
  - How to become an entrepreneur? How to create a spin-off?
  - How can I make my way outside the academia?
Objective? Help the PhD to develop their career within or without the academia, to highlight their professional potential
**Axis 4 - Communicate and disseminate your research**

**For Who?** All researchers

**What’s in it?** This axe is divided in parts: public engagement and scientific communication.

**Tips to learn:**
- how to address a scientific research to a wide audience (for example in the frame of the “My thesis in 180 seconds” contest)
- how to communicate about their research in the media,
- how to make a good scientific presentation, a good scientific poster,
- ...

**Objective?** To improve their oral and written communication in a scientific context or in the context of science outreach
Axis 5 - Ethics and quality in research

For Who? All researchers
What’s in it?
- A half day annual workshop
- Round table about various topics such as hospital mediation, emergence of norms and laws...
- Training about the “professional and responsible research”
Objective? To stimulate a reflexion about good practices in research.
Axe 6
OPEN SCIENCE, OPEN RESEARCH

L’Open Access est de plus en plus incontournable en matière de recherche. Avec son répertoire OIRI, l’IUG a montré son engagement dans le processus. Cet axe de formation détaille des outils intéressants pour innover et diffuser votre recherche.

Axis 6 - Open science, Open Research

For Who? All researchers

What’s in it? Trainings about Open Access, seminars about author rights, open source development dedicated to scientific research…

Objective? To inform our researchers about creative and innovative tools.
Axe 7 - Leadership in research

For **Who?** Researchers, professors and supervisors

**Objectives?** Give them keys to better supervise PhD-Candidates, to improve their leadership/team management skills...
Communicating about our training offer

We introduce our training offer on our website in French and in English:
- Prezi presentation
- Online catalogue (flipping book)
- Agenda of all the trainings

We also introduce our training catalogue during specific academic events, like the opening of the new academic year for PhD-Candidates (end of October) and with a global email to our scientific community (beginning of October).

Social media networks (mainly Facebook, LinkedIn) : presence has been increased, creation of « Sophia » (fictional character) who is representing a doctoral student

We also raise awareness within the institution (doctoral colleges within each Faculty, relevant authorities, etc.).
Sophia’s profile on Facebook
In practical terms

The registration form is open twice a year. The registrations are confirmed to the participants. Once they attend it, they receive an online evaluation form. They have to fill it in in order to receive their participation attestation and get credit for the training from their doctoral college.

Subsequently, we analyse all the evaluations, training per training, and we send a feedback to the trainer or speaker (continued improvement).
Sustainable?

- We keep small budget (we mainly rely on the good will of all)

- Work with your institutional partners (for us: Universities’ libraries, HR department, Interface)

- Extend your networks (national and international)

- Train yourselves and get the skills to become the trainer (program “train the trainer”, regular participation to trainings)

-- We continuously improve our program to meet participants’ expectations as well as the European recommendations
Specific initiatives along the year with dedicated marketing:

*Pars-en-thèse* seminar: "3 days to get a foot in the door"

Intensive program of 3 days giving all information about doctoral studies, identifying all resource people they might need, and organizing small workshops

- We started in 2015, 1 session in October 2015

- This year (academic year 2016-2017), we organize 2 sessions (one in October - one in January - depending of the grants doctoral students get)
Séminaire Pars-en-Thèse
à destination des nouveaux doctorants

Donnez-vous toutes les chances de bien démarrer votre thèse!

Séminaire « Pars-en-thèse »

Université de Liège

Programme

Mardi 27 octobre 2015
10h30-12h30 Exposé "Pars-en-thèse"
E. Favart, Administration R&D
13h30-15h30 Table ronde "Poser sa question de recherche"

Mercredi 28 octobre 2015
09h30-12h30 Introduction à la sécurité et au bien-être au travail à l'ULg
E. Diman et S. Grubisic, SUPHT
13h30-14h00 Éviter le plagiat dans sa thèse de doctorat
A.-F. Lanotte, Service guidance étude
14h00-15h30 Chercher et produire l'information scientifique
P. Thion, Direction Réseau des Bibliothèques

Jeudi 29 octobre 2015
09h30-10h30 Organisation générale de l'ULg
V. Boveux, Directrice Service des Affaires juridiques
10h30-12h30 Table ronde "Cotuèlle et mobilité"

13h30-15h00 Attitude professionnelle et responsable du chercheur
I. Haikou, Directrice ARD

15h00-15h30 Rôles et enjeux du cahier de labo
E. Naveau, Interface Entreprises-ULg

Informations pratiques

- Durée : 3 jours
- Date : 27 au 29 octobre 2015
- Lieu : Complexe Opdia le 27 octobre. Place du XX-Août les 28 et 29 octobre
- Langue : français
Specific initiatives along the year with dedicated marketing:

Annual Workshop “Research, ethics & Society”

Annual workshop “Research, Ethics & Society”:
« La politique de l’excellence en recherche : histoire, effets, enjeux »

Conférence introductive du Professeur Michèle Leduc
25 février 2016 de 13h30 à 16h30
Sart Tilman B31, Amphi Tocqueville
Annual workshop about ethics in research

What is ethics in research? What is an ethical behaviour? What can be the impact on/implication for society?

2015-2016 session: with Michèle Leduc (President of the ethics comity of the CNRS – France)

2016-2017 session: with Marcus Manufo (University of Bristol, Professor of Biological Psychology) « Scientific Ecosystems and Research Reproductibility »
Some numbers … and feedbacks from participants

At the end of 2015, we conducted a satisfaction survey:

Around 500 persons have participated in our training sessions in 2015-2016
(we have around 2000 PhD students at the University of Liège, 400 to 500 new ones every year, and around 200-250 graduated every year)

Mainly from the faculties of science, medicine, agro biotech, applied sciences

Participants remarks:
Participants would like more training sessions in English, and more on other university campuses. They prefer one-day / half-day training formats, and recognized the training sessions are very useful (76%) for their studies and professional projects.
Most appreciated training programs:

Tools for science Outreach, scientific communication and production
Other tools:
LaTeX (software) designed for the production of technical and scientific documentation (articles, scientific poster)
Statistics
Project management

Post-docs and experimented researchers show a clear preference for trainings related to scientific communication and for Phd student supervision.
To follow us:

http://www.ulg.ac.be/recherche

http://www.ulg.ac.be/cms/c_3511208/fr/tableau-recapitulatif-des-formations

Discussion

Thanks for your attention!

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