Education Ambassadors Meeting Workgroup No 2 Report

GOOD PRACTICES on (UNIVERSITY) EDUCATION

Aylin Sepici Dincel	asepicidincel@gmail.com
Winnie Eskild	winnie.eskild@ibv.uio.no
Albert Spisni	alberto.spisni@unipr.it
	aspin@unipr.it
Nikos Karamanos	n.k.karamanos@upatras.gr
Nestor V. Torres	ntorres@ull.edu.es
Jean-Luc Souciet (Chair)	jlsouciet@unistra.fr

There is no university education without research, no more than there is no research without university education

This postulate should be one of the golden stone of our analytic work; university education and research are strongly linked. The corresponding rational required that all the members of a teaching staff should be involved in a research team, even if they are not implicated in research. Why? By participating to the weekly seminar lab's they are linked to the rapid evolution of knowledge and technologies in a specific field and they are able to transfer shortly these new outcomes to young students. The teachers are the facilitators to disseminate the new knowledge about Life.

Some kind of definition

A definition of "Good practices" (1) is an initiative, project and/or policies that provide examples of practice, generate ideas and contribute to policy and curriculum development.

Societal/governmental background: few observations

University education is highly promoted by governments in most countries. For example the EU goal is to reach, by 2020, 40% of population between years 30-34 to be successful with a university degree (3).

Accordingly, in the last years it is observed a growing trend in the number of university students (2) with the corresponding increase in the variety of expectations and formatives profiles. Also, the number of students in each class, tend to increase, but that in many cases (most states funded universities) it does not imply a proportional increase in the human maintenance resources of universities.

Accordingly:

. Any teaching strategy should consider the different backgrounds of the student cohorts, their distinct formative profiles (in terms of weakness and strengths). Whatever the year or the country we will face at a "Gaussian" distribution of the new students skills regarding their intrinsic abilities, even if it is more homogeneous at the master level.

. The above raise an excruciating question for academic institutions: shall the teaching staff to focus only on the best students, or to take care of the remaining majority?

. The university formation should aim to facilitate the students the acquisition of many skills, particularly creativity and critical thinking through a process where students are the main actors where the teachers are "companions" in the learning process. If this goal is reached another important objective of the university formation will be reached: to provide them with the necessary resources to integrate successfully in a knowledge based economy.

Common overview of the student population

Basic question about the ability of students (5). Let's consider the following case: a group of 10 students, where:

. 2 are very good; be able to managing more independently their learning process that systematically seek interaction and advice from the teaching staff

. 4 are "standard" students. They are good but need a more guidance and supervision that respond effectively to it.

. 2 of them require a special attention and a more intensive, strong involvement of the teaching staff. Eventually they could just reach the minimal, required level of knowledge.

. 2 are too far from what could be acceptable to reach the minimal level; they need a re-orientation and another pedagogical approach. They need a specific but complicated approach.

The common approach to deal with this situation is to operate on the mean-stream, "average student" population. To this challenge we have to cope with an additional one, since the radical changes in the nature of biosciences (from 2000 with a strong breaking point in 2010/2011): what is the core biological knowledge we should consider to teach efficiently?

The positive feedback of teaching

What researchers gain from teaching? The reported 4 points below have been already described (6) but it is worth to remember here:

. Teaching at introductory level requires from the teacher a broad spectrum of knowledge: basic questions of students are often difficult to answer and it is a good way for the self-education of the teacher (free feedback!).

. Teaching means coordination/discussion with colleagues from different fields, another way to be educated and sometimes to start research collaboration!

. Attracting in the lab genuine students with original ideas or approaches.

. Organizing lab courses on risky themes at a large scale.

In conclusion we have listed possible trails to reach these goals in other words: "Good practices on (university) education".

The necessary transformations, the core of our meeting, imply:

1/ Placing the student in the focus-centre of our discussion.

2/ Educating the teachers as teachers. They should be benefited from the advancements.

3/ By setting up working groups, academic will be able to meet and discuss pedagogical tools in a fit-for-purpose environment without having to reinvent the wheel!

4/ Placing interactive-education as an obligatory approach.

5/ Responsibility of the student (individual work; auto- evaluation; common works assembling heterogeneous students in the same group). But the individual evaluation is absolutely required. Some kind of "contract " included within the Syllabus (4).

6/ There is an absolute requirement to change and to adapt the teaching methodology, in a collaborative approach, to a rapidly evolving world

7/ Restoring the balance between teaching and research at university institutions.

References and notes:

(1)http://www.unesco.org/new/en/education/networks/global-networks/aspnet/good-practices/:

(2)http://ec.europa.eu/eurostat/en/web/products-press-releases/-/3-11042014-AP

(3) http://ec.europa.eu/education/policy/higher-education/attainment_en

(4) A **syllabus:** is an academic document with numerous variations:

1. That communicates course information

2. Defines expectations and responsibilities. It is descriptive (unlike the prescriptive or specific curriculum

3. Set out by an exam board or prepared by the professor who supervises or controls course quality

The essential components to an academic syllabus are:

. Instructor information
. General course information
. Course objectives
. Course policies
. Grading and evaluation
. Learning resources
. Course Calendar

However the syllabus content differs significantly from country to country; thus almost never used in France and in Belgium it contents only the scientific documents related to the teacher's course. On the contrary in Spain is the general use as described above.

(5) Students are university students, as considered in the Bologna processus L, M, D levels.

(6) ASCB Newsletter, November 2011, 3-5