

www.jotse.org

GOOD LEARNING PRACTICES IN THE FIELD OF SCIENCE AND TECHNOLOGY

Beatriz Amante García¹, Maria Martínez²

¹Projectes d'Enginyeria, Universitat Politècnica de Catalunya, ²Enginyeria Química, Universitat Politècnica de Catalunya Barcelona / Spain ¹beatriz.amante@upc.edu, ²rosario.martinez@upc.edu

The European Higher Education Area (EHEA) scenario offers a new framework in which the role of universities can be rethought, regardless of the field of new degrees and postgraduate Studies involved. Therefore, the roles of teachers and students might differ significantly as the student would be obliged to request teacher's guidance in order to acquire not only knowledge, which could be easily obtained elsewhere (books, internet etc.), but also personal skills and, especially, those related to their future professional career.

By the term "Good learning practices" we refer to those activities associated with professorship itself ,such as those of facilitating and guiding the student learning process, or rather, those activities which are aimed at the student's thorough learning of specific (related to the field of study) and generic skills.

It is now a common occurrence to describe the students of a given classroom as being little motivated and as having great interest in passing but not in actually learning. This fact is quite concerning, as it suggests that the student sees the university as a mere transaction by which they can obtain a degree, certifying that they are apt for the professional world, where they consider the "real" learning will take place.

A good classroom environment is essential for the generation of teaching-learning processes. It is precisely because of this that we are able to raise the issue of effective practices among teachers who foster a suitable classroom dynamics facilitating, then, the targeted learning experience. Within this context, there are some authors who discuss good practices by professors especially concerned on how to perform assessment and feedback to enhance student's learning activity. Thus, providing them with a deep and lasting impact. Generally speaking, the activities in question are those which enable the student to execute a learning process that will continue throughout their professional and personal lives.

In the present issue we have selected a number of articles related to good practices taking place in the context of new studies plan implementation (EHEA) in several Spanish Universities.

In the first paper: <u>Reflections and conclusions on the work developed by the group of teaching innovation in electronics at the university of Valladolid</u>, they present the main conclusions and results obtained over the three last academic years in the Electronics and Automatic Industrial Engineering degree. As a result of cooperative work of the group, an improvement in activity coordination and provision of tools to facilitate the teaching-learning process has been obtained. The work in question shows relevant strategies and tools that facilitate the incorporation and evaluation of generic competences in the new degrees within the EHEA framework.

The second article, <u>Realising pedagogical potential of the Bologna Process third cycle</u> is contextualised within the issues of internationalisation, standards and standardization of degree credit ratings, with special attention on collaboration and competition, and language and writing. In other words, the main challenges that the

emerging EHEA poses in terms of third cycle students needs as to the pedagogical essence is concerned, such as the structural change. The EHEA has many practical gains to offer, but it also has potential disadvantages that this research discusses in depth.

The third article, (Best practices in academic assessment in higher education: A Case in formative and shared assessment) presents an example of good practices of formative assessment in a course that bases the entire learning process on an ongoing, formative system with real shared student assessment.

In the last article of this second issue of JOTSE, <u>Design and analysis of questionnaires for survey skills in</u> <u>chemical engineering</u>) some specific questionnaires following the recommendations of the European Federation of Chemical Engineering (EFCE) for Chemical Engineering Education in Bologna are discussed. In the academic context of a three cycle degree system the authors analyse the effectiveness of teaching strategies carefully developed to help students acquire specific and interdisciplinary skills.

We hope that JOTSE readers enjoy the contents of the present issue which may bring some ideas on good practices for future implementation.