Fostering engagement and learning through formative feedback.  
**UNED developments and use of automatized and mobile feedback for closed and open-ended questions**

Formative assessment and personalised feedback are commonly recognised as key factors both for improving student’s performance and increasing their motivation and engagement (Gibbs, 2005). Currently, in large and massive online courses technological solutions to give feedback are reduced to different kinds of quizzes. In this webinar, solutions and results for automated closed and open-ended questions will be presented, based on UNED experiences in different undergraduate subjects.

**Automatic Feedback for closed question**
Previous research in Educational Psychology has showed the positive results for students’ engagement and learning of, on the one hand, the so-called Testing effect, or answering questions after study sessions; and, on the other hand, Spaced education, meaning spaced repetition of the same questions at specific intervals, which increases long-term retention. Through this webinar participant would have the opportunity to know the features of a new Moodle activity plug-in activity developed in UNED called UNEDTrivial, which allows instructors design quizzes as learning tools based on “testing effect” and “spaced education”. First results in two subjects of the Faculties of Economics and Psychology will be presented.

**Automatic Feedback for open-ended questions**
At present, one of our challenges is to be able to give feedback for open-ended questions through semantic technologies in a sustainable way. To face such challenge, our academic team decided to test a Latent Semantic Analysis-based automatic assessment tool, named G-Rubric, developed by researchers at the Developmental and Educational Psychology Department of UNED (Spanish National Distance Education University). By using GRubric, automated formative and iterative feedback was provided to our students to different types of open-ended questions (70-800 words). This feedback allowed students to improve their answers and practice writing skills, thus contributing both to a better concept organisation and the building of knowledge.

At this webinar, we will present the promising results of our first experiences in UNED Business Degree students along three academic courses (2014/15, 2015/16 and 2016/17).

**Speakers:**

Miguel Santamaría Lancho  
Ángeles Sánchez-Elvira Paniagua
Miguel Santamaria Lancho
Senior Lecturer in Economic History at UNED School of Economics and Business. Former Vice-rector for Quality and Teaching Innovation (2005-2013). His experience covers the following areas: application of technology for distance learning, teacher’s training, quality assurance and teaching innovation. During the last years has been focused on how formative feedback supported by technologies could improve the student experience and learning.

Ángeles Sánchez-Elvira Paniagua
Senior Lecturer in Psychology at UNED. Currently Vice-Dean of Methodology and Innovation in the Faculty of Psychology, chair of the Student Support Group of the EMPOWER project and member of the review team of the E-xcellence (EADTU).

Former UNED IUED (Institute of Distance Education) Director 2004-2013. Working since 2001 in innovation in Distance and Digital Education, especially applied to student and academic staff support, both at a national and international level.