Integrating research, practice and knowledge: Calohee project as case study of civil engineering

Soeiro, A.

University Porto, DEC - FEUP, R. Dr. Roberto Frias, Porto, 4200-465, Portugal

Abstract

Existing approaches to assess quality of learning tend to look at processes and not at achieved learning by civil engineering students. CALOHEE applied a forward looking approach, focusing on what a graduate should know and be able to do in order to function successfully in life and contribute to society (learning outcomes perspective). The chosen approach brought evidence-based accountability into the teaching and learning role of HE institutions by focusing on competences acquired by students, which meet the needs of society and the graduates. The assessment framework included four strands: 1) Knowledge (theory and methodology); 2) Applying knowledge and skills; 3) Preparing for employability and 4) Civic, social and cultural engagement. CALOHEE also developed a set of reference points at 1st and 2nd cycles levels. The sets of learning outcomes’ descriptors were prepared by teams from the respective academic communities, in close consultation with stakeholders and open to public scrutiny. CALOHEE developed the Assessment Framework for Civil Engineering Education that is based on a merger of the Qualification Framework for the European Higher Education Area and the European Qualification Framework for Lifelong Learning. The Assessment Framework is built on a set of learning outcomes’ descriptors and related framework that is precise enough to offer a basis for assessment and broad enough to encompass a wide range of programme profiles. As a conclusion, CALOHEE offers academic engagement, subject focused context and evidence based tools for analysis and diagnosis, serving Higher Education institutions and providing meaningful information to stakeholders and society. The ultimate result is meaningful increase of the quality of civil engineers. © WMSCI 2018 - 22nd World Multi-Conference on Systemics, Cybernetics and Informatics, Proceedings. All rights reserved.