



Balancing Bologna: opportunities for university teaching that integrates academic and practical learning outcomes

Lorenz Probst (1), Verena Pflug (1), Christiane Brandenburg (2), Thomas Guggenberger (1,3), Axel Mentler (1,4), Maria Wurzinger (1,5)

(1) Centre for Development Research, University of Natural Resources and Life Sciences, Vienna, Austria, (2) Institute of Landscape Development, Recreation and Conservation Planning, University of Natural Resources and Life Sciences, Vienna, Austria, (3) Quality Management, University of Natural Resources and Life Sciences, Vienna, Austria, (4) Institute of Soil Research, University of Natural Resources and Life Sciences, Vienna, Austria, (5) Division of Livestock Sciences, University of Natural Resources and Life Sciences, Vienna, Austria

In the course of the Bologna Process, the quality of university teaching has become more prominent in the discourse on higher education. More attention is now paid to didactics and methods and learner-oriented modes of teaching are introduced. The application of knowledge, practical skills and in consequence the employability of university graduates have become requirements for university teaching. Yet, the lecture-style approach still dominates European universities, although empirical evidence confirms that student-centred, interdisciplinary and experiential learning is more effective. Referring to the learning taxonomy introduced by Bloom, we argue that standard approaches rarely move beyond the learning level of comprehension and fail to reach the levels of application, analysis, synthesis and evaluation.

Considering the rapid changes and multiple challenges society faces today, responsible practitioners and scientists who can improve the current management of natural resources are urgently needed. Universities are expected to equip their graduates with the necessary skills to reflect and evaluate their actions when addressing 'real world' problems in order to improve impact and relevance of their work. Higher education thus faces the challenge of providing multi-level learning opportunities for students with diverse practical and theoretical learning needs.

In this study, we reflect on three cases of university teaching attempting to bridge theory and practice and based on the principles of systemic, problem based learning. The described courses focus on organic farming, rural development and landscape planning and take place in Uganda, Nicaragua and Italy. We show that being part of a real-world community of stakeholders requires hands-on learning and the reflection and evaluation of actions. This prepares students in a more effective and realistic way for their future roles as responsible decision makers in complex social, economic and ecological systems. We thus conclude that in order (1) to meet the goals of the Bologna process; and (2) to bridge the gap between theory and practice in higher education, university teaching needs to radically reconsider its standard forms of teaching. We propose a fundamental shift towards action learning in real-world settings, empowering students to become responsible actors.