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Lifelong Learning in Applied Fields (LLAF) Tempus Funded Project: A Case Study of Problem-Based Learning

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Abstract : Although university teaching is claimed to have a special task to support students in adopting ways of thinking and producing new knowledge anchored in scientific inquiry practices, it is argued that students' habits of learning are still overwhelmingly skewed toward passive acquisition of knowledge from authority sources rather than from collaborative inquiry activities. In order to overcome this critical inadequacy between current educational goals and instructional methods, the LLAF consortium is aimed at developing updated instructional practices that put a premium on adaptability to the emerging requirements of present society. LLAF has created a practical guide for teachers containing updated pedagogical strategies based on the constructivist approach for learning, arranged along Delors' four theoretical 'pillars' of education: Learning to know, learning to do, learning to live together, and learning to be. This presentation will be limited to problem-based learning (PBL), as a strategy introduced in the second pillar. PBL leads not only to the acquisition of technical skills, but also allows the development of skills like problem analysis and solving, critical thinking, cooperation and teamwork, decision- making and self-regulation that can be transferred to other contexts. This educational strategy will be exemplified by a case study conducted in the pre-piloting stage of the project. The case describes a three-fold process implemented in a postgraduate course for in-service teachers, including: (1) learning about PBL (2) implementing PBL in the participants' classes, and (3) qualitatively assessing the contributions of PBL to students' outcomes. An example will be given regarding the ways by which PBL was applied and assessed in civic education for high-school students. Two 9th-grade classes have participated the study; both included several students with learning disability. PBL was applied only in one class whereas traditional instruction was used in the other. Results showed a robust contribution of PBL to students' affective and cognitive outcomes as reflected in their motivation to engage in learning activities, and to further explore the subject. However, students with learning disability were less favorable with this "active" and "annoying" environment. Implications of these findings for the LLAF project will be discussed.

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