A New Measurement for Assessing Constructivist Learning Features in Higher Education: Lifelong Learning in Applied Fields (LLAF) Tempus Project

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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.This form of instruction is criticized for encouraging students to acquire inert knowledge that can be used in instructional settings at best, however cannot be transferred into real-life complex problem settings. In order to overcome this critical inadequacy between current educational goals and instructional methods, the LLAF consortium (including 16 members from 8 countries) 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 and assessment tools, based on the constructivist approach for learning that put a premium on adaptability to the emerging requirements of present society. This presentation will be limited to teachers' education only and to the contribution of the project in providing a scale designed to measure the extent to which the constructivist activities are efficiently applied in the learning environment. A mix-method approach was implemented in two phases to construct the scale: The first phase included a qualitative content analysis involving both deductive and inductive category applications of students' observations. The results foregrounded eight categories: knowledge construction, authenticity, multiple perspectives, prior knowledge, in-depth learning, teacher- student interaction, social interaction and cooperative dialogue. The students' descriptions of their classes were formulated as 36 items. The second phase employed structural equation modeling (SEM). The scale was submitted to 597 undergraduate students. The goodness of fit of the data to the structural model yielded sufficient fit results. This research elaborates the body of literature by adding a category of in-depth learning which emerged from the content analysis. Moreover, the theoretical category of social activity has been extended to include two distinctive factors: cooperative dialogue and social interaction. Implications of these findings for the LLAF project are discussed.

Keywords : constructivist learning, higher education, mix-methodology, structural equation modeling
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