

The presentation focuses the conference topic "Modeling and Measurement of Competencies in Higher Education" from the perspective of scientific evaluation. Scientific evaluation is based on Standards (e.g., JCSEE, 1994; DeGEval, 2002). It systematically combines qualitative and quantitative approaches for data collection and analysis. Curricula at universities can be assumed to be a special kind of programs. Consequently, program evaluation can be applied to investigate the input and output of higher education. According to Patton (1996, p.23) "program evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness, and/or inform decisions about future programming." Evaluation can and should be done in all phases of a program. Baseline data collected before the start of the program are used to describe the current situation e.g., the generic and domain-specific competencies of students before study entrance. Before the start of the program a prospective evaluation can be employed to determine the program's potential of realisation, its effectiveness and impact, that is, the scope of its effects. The academic study might be proven whether the defined graduates' profile could be met under defined context conditions. In formative evaluation, interim data are collected after the start of a program but before its conclusion. It is the purpose of formative evaluation to describe the progress of the program and, if necessary, to modify and optimize the program design. In the case of higher education, the focus might be how the academic study and specific courses support the development of generic and domain-specific competences. Additionally, context conditions should be taken into account. Outcome evaluation deals with the question whether programs achieve their goals. Here, generic and domain-specific competences of graduates and freshmen (baseline data) can be compared. Furthermore, competences of graduates might be evaluated concerning their correspondence to defined graduates' profiles.