Assessment of Competences in the Physical Chemistry Area: Use of the Department Teaching Portfolio

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Competences have become a standard learning outcome within the European Higher Education Area (EHEA). In this regard, updated tools for their assessment have turned out essential in this new teaching-learning paradigm. Among them, one of the most promising tools is the “learner’s portfolio”. In this contribution we propose the use of the portfolio as a unifying assessment tool within a university department (Physical Chemistry), exemplifying how the portfolio could yield both personalized student reports and averaged area reports on competence acquisition. A proposed stepwise protocol is given to organize the individual competence reports and estimate the global competence level following a bottom-up approach (i.e. ranging from the class group, subject, grade, and academic course).

REALISTIC ASSESSMENT

(i) Subject / Course - TEACHING-LEARNING PORTFOLIO
(ii) Grade / Postgraduate - ACADEMIC PORTFOLIO
(iii) Wider timeline - DEVELOPMENT PORTFOLIO

Parts

(i) Initial: starting point
(ii) Continuous: didactic process
(iii) Final: arrival point
(iv) Self-assessment: transverse ("learn to learn")

COMPETENCE REPORTS

Multi-level reports

Level I initial + self-assessment
Level II continuous
Level III continuous
Level IV final + initial

Competence levels

0 1 2 3 4 5 (levels per each competence)

CONCLUSIONS

• Competence acquisition is assessed through multi-level teaching portfolios, yielding different reports that grade the competence acquisition level (from 1 to 5, where 1 is the lowest level).
• Reports range from the individual (level I), to the class / group (level II), subject (level III) and knowledge area (level IV); each report level averages competence evaluation from previous levels.
• Reports complement classical grading marks and could be used as quality indicators for prospective postgraduate studies admission or graduate employment.