ASSESSING THE ASSESSMENTS: EVIDENCING AND BENCHMARKING STUDENT LEARNING OUTCOMES IN CHEMISTRY

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Background

Higher Education in Australia is in a phase of rapid change due to a number of regulatory changes. Over the past five years the Australian Chemistry community has agreed on a list of Chemistry Threshold Learning Outcomes (CTLOs) that every student graduating from an Australian University will have attained. In addition, the Royal Australian Chemical Institute (RACI) has changed its accreditation process for Chemistry degrees and now uses these CTLOs as the basis for accreditation.

Therefore, it is now paramount to ensure that our assessment items allow students to demonstrate attainment of the CTLOs during a degree (Elmgren, Ho, Åkesson, Schmid & Towns 2015). The "Assessing the Assessments" project, funded by the Australian Government's Office for Learning and Teaching (OLT ID14-3562) is developing a framework designed to help academics at tertiary institutions to determine the alignment of their assessment items with the CTLOs. The project is also collating a database of exemplary standards-based assessment items.

Outcomes

The project team has developed an online pro-forma, allowing self-assessment and submission of assessment items. Through workshops, colleagues are guided through a deeper evaluation of assessment items to determine how they meet or fall short of attainment of specific CTLOs. These workshops are designed to support evaluation of assessment items to ensure that they are CTLO compliant, using a tool developed over the course of the project. Results of evaluations conducted using this tool provide information regarding which portions of each CTLO students engage with through the task's design, the level of scope and complexity at which they are engaged and the extent to which the attainment of each CTLO is assessed. Results also reveal which features of the CTLOs may need to be assessed more explicitly or rigorously in order to confirm student attainment or otherwise.

References

Elmgren, M., Ho, F., Åkesson, E., Schmid S. & Towns, M. (2015). Comparison and evaluation of learning outcomes from an international perspective: Development of a best-practice process, *Journal of Chemical Education. 92*, 427- 432.

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