

ASSESSING STANDARDS IN SCIENCE

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ABSTRACT

Internationally there is recognition that critical thinking, analytical reasoning, problem solving and communication are critical for citizenry of the 21st century. At the same time assessment of “quality” and “standards” is on the agenda (e.g. AHELO, QAA, Tuning project). In 2011, the Australian government legislated for a Quality and Standards framework (by formation of TEQSA – the Tertiary Education Quality & Standards Agency) which will regulate tertiary education against an agreed set of standards developed by the Higher Education Standards panel. Prior to this, the Australian Government through the Australian Learning and Teaching Council funded the Learning and Teaching Academic Standards project. The tertiary sector in Australia is yet to initiate and agree on the assessment of these standards (the ‘Threshold Learning Outcomes’) for Science (Jones & Yates, 2011) to determine whether these standards have been reached. Our current assessment practices, are mostly not ‘fit for purpose’ in a standards based paradigm where the accretion of 50 marks across a number (sometimes a LARGE number) of assessment tasks does not necessarily mean that a student has met the requirements of the course (even though they have arithmetically ‘passed’). In the “standards” era, students will need to be able to demonstrate a greater range of problem solving and communication skills and an understanding of how scientific knowledge is both contested and testable. Our assessment practices in science will need to be more holistic covering a greater range of skills that students will require “beyond the course” if we are to certify graduates for a 21st century unpredictable future.

REFERENCES

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