

MAKING ASSESSMENT COUNT: USING EFFECTIVE ASSESSMENT PRACTICES TO REINFORCE TEACHING AND LEARNING ACTIVITIES

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ABSTRACT

This study will investigate how assessment works to frame student learning, and, more precisely, it will examine how effective assessment practices support and reinforce teaching and learning activities. Constructive alignment of teaching and learning activities and the assessment items within a teaching unit and, ultimately, a course can work to reinforce the ability of students to achieve superior assessment outcomes and, consequently, enhance student satisfaction with assessment. A high quality assessment framework will depend on these aforementioned characteristics coupled with timely, effective and formative feedback on continuous assessment. This study questions how students engage with their assessment in an interdisciplinary 2nd year level biochemistry teaching unit. A series of student surveys and focus group interviews were used to explore the quality, quantity and efficacy of the assessment framework. The outcomes from this study indicated that the teaching, learning and assessment activities within this teaching unit were effectively aligned, and this framework supported and developed student learning and understanding. Moreover, the evidence suggests that constructive alignment of teaching, learning and assessment motivates students to achieve quality outcomes with respect to grades through authentic assessment experiences, and leads towards improved and more effective learning environments.

KEYWORDS

Formative assessment, Summative assessment, Authentic assessment, Student learning, Authentic learning, Constructive alignment, Feedback, Engagement

BACKGROUND

A good teaching system aligns teaching method and assessment to the learning activities stated in the learning objectives, so that all aspects of this system are in accord in supporting appropriate student learning. This system is called constructive alignment based as it is on the twin principles of constructivism in learning and alignment in teaching. The application of constructivist teaching strategies promotes an authentic learning environment (Herrington & Herrington, 2006), which is motivational, student-centred, and real-world focussed. Furthermore, constructivist or authentic learning is transferable, in that students create organising principles that they can take with them to other learning settings. Biggs (Biggs & Tang, 2007) asserted that “in aligned teaching the assessment reinforces learning. Assessment is the senior partner in learning and teaching. Get it wrong and the rest collapses.” Indeed, within the teaching and learning landscape, assessment is probably the component that causes the most anxiety for students, and most consternation for academics. It is possible for students to break away from poor teaching through their own hard work, but students will be trapped by the consequences of poor assessment (Boud, 2000; Boud & Falchikov, 2006).

Authentic assessment directly engages the student with functioning knowledge in its context. For authentic assessment, learning needs to efficiently integrate with the teaching activity and optimise the ability of students to perform and achieve (Herrington & Herrington, 2006). Accordingly, Boud (2000) has advanced that the more we engage students in effective and authentic, and even sustainable assessment activities that contribute to their learning, the more satisfying will be their higher education experiences. The design of effective assessment is a complex and challenging undertaking, since assessment serves multiple purposes (Harris *et al.*, 2007), which can be summarised by the following points:

- determination of students' preparedness for further study,
- grading and ranking of students, relative to one another, for the purposes of awards, competitive scholarships, entry to graduate programs etc.,
- giving feedback on student learning for both students and staff,
- providing feedback on teaching for staff,
- defining, maintaining and protecting academic standards,
- directing students' learning.

Generally, effective assessment within a unit of study in higher education will incorporate a mix of assessment types that are designed and selected to meet the demands highlighted above. In designing assessment tasks there are several considerations that are paramount. Clear assessment criteria or rubrics need to be established for each assessment task or for the intended learning outcomes that each assessment task is meant to address. Assessment is classified as being formative, summative or both, and this terminology is applied to the function that the assessment item serves (Biggs & Tang, 2007). Formative assessment works to provide feedback during learning and this formative feedback aims to enable improved performance on current or subsequent assessment tasks. Typically, the objective of formative assessment is the development of understanding or skills. An assessment task that is described as formative may be unmarked or marked and, hence, contribute to the overall grade in a unit of study. Summative assessment provides an index of how successfully the student has learned when the teaching activities have been completed. Assessment tasks are described as summative if they are awarded a mark or a grade and those marks or grades contribute to the overall grade for the unit of study. Importantly, many assessment tasks serve both formative and summative purposes (Biggs & Tang, 2007).

It is unequivocal that the literature acknowledges that assessment practices and implementation needs to be improved, but accumulated evidence suggests that feedback may be the worst aspect of assessment (Rust, 2007). To address these discrepancies and advance improvements a number of high-profile educational research projects have recently focused on the subject of improving the quality of assessment and feedback practice. These projects include the Formative Assessment in Science Teaching (FAST) project (<http://www.open.ac.uk/fast/>), the Re-engineering Assessment Practices (REAP) project, and the Assessment 2020 project (<http://www.iml.uts.edu.au/assessment-futures/>). Each of these projects has developed frameworks and sets of principles of effective assessment and feedback practice (see Gibbs & Simpson, 2004-5; Nicol, 2007; Boud & Associates, 2010). Overall, a synthesis of the assessment practice and reform recommendations emanating from these projects can be distilled down to three key focal points:

1. Assessment activities should be designed to focus students on the creation of productive learning opportunities.
2. Assessment practices need to engage and motivate both students and staff.
3. Feedback needs to actively and decisively support student learning.