

## Chapter 3

# Trends and Challenges of E–Assessment to Enhance Student Learning in Higher Education

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### ABSTRACT

*This chapter provides an overview of current e-assessment activity in Higher Education (HE) for those interested in improving their assessment practices. Despite substantial changes in HE teaching and learning strategies with the introduction of Information and Communication Technologies (ICT), little effort has been made in the area of assessment, where traditional methods are still commonly used. ICT and computers are seen as a medium for supporting and guiding the whole learning process, but these options have not yet been fully explored. In view of this, we would like to review the trends and challenges of e-assessment to enhance student learning in future scenarios, taking into consideration several publications, cases and contributions from both the practice and research perspective.*

### INTRODUCTION

According to the Quality Assurance Agency for Higher Education (HE) (2010), assessment is an essential part of the instructional process as a whole, not just a matter of marking. Assessment should promote the enhancement of teaching and learning outcomes for both formative and summative processes (Clements & Cord, 2013). In this regard, approaches like “dynamic assessment” recommend assessing students’

DOI: 10.4018/978-1-5225-0531-0.ch003

potential to learn rather than measure what they have just done (Sharples, Adams, Ferguson, Gaved, McAndrew, Rienties, Weller, & Whitelock, 2014:23).

In spite of substantial changes in HE teaching and learning strategies with the introduction of Information and Communication Technologies (ICT), little effort has been made in the area of assessment, where traditional methods are still commonly used.

The evolution of ICT is providing new opportunities for strategies that can be used for assessment. For this reason, e-assessment is playing an increasingly important role in the transformation of HE (Whitelock, 2010), but new assessment paradigms and methodologies are still needed. In fact, most of the existing e-assessment experiments do not consider the adoption of user-centred approaches with the potential to engage students in authentic assessment tasks, a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills (Mueller, 2014; Mora, Sancho-Bru, Iserte & Sánchez, 2012) or aimed at testing higher order capabilities (Crisp, 2010).

Traditional assessment methods are often based on the student being treated as an isolated individual with limited access to resources and other people. This approach is inconsistent with the new learning environments in HE that are open, collaborative and distributed in nature with access to almost unlimited digital resources. New generation learning spaces facilitate the integration of physical and virtual learning activities, yet we have not seen the extension of this approach to assessment. The widespread availability of MOOCs, the gamification of learning and the adoption of more evidence-centred design approaches to learning activities call for a review of the alignment between these new approaches to learning and the assessments designed to test that learning (Crisp, 2014a).

Predominant e-assessment tasks are still based on traditional forced-choice measures of multiple-choice tests, short answer, fill-in-the-blanks, true-false and matching. Students typically select an answer or recall information to complete the assessment (Marriott, 2009; Pachler, Daly, Mor & Mellar, 2010; Stödborg, 2012). Furthermore, current studies still claim that the power of e-assessment lies in the way in which automated computer-marked questions ease the teachers' workload. However, we would like to highlight that the feedback provided through computer-marked assessment is most effective when it is understood by the student, tailored to any misconceptions they may have and when it prompts students to reflect and refine their responses rather than just giving the answer (Jordan, 2012).

Some of the recent reviews of e-assessment literature (e.g. Hepplestone, Holden, Irwin, Parkin & Thorpe, 2011; Jisc 2009; Kay & LeSage 2009; Stödborg 2012) have focused on a subset of technology-enhanced assessment or feedback.

Reasons for the rising interest in reimagining assessment and e-assessment include accreditation and recognition of the need for more convincing evidence of student accomplishment in areas related to higher level cognitive and affective skills (Kuh, Jankowski, Ikenberry, & Kinzie, 2014). A greater emphasis on authentic assessment also facilitates the portability of credentials across national borders; the report developed by the High Level Group on the Modernisation of Higher Education (European Commission, 2014) recommends that the European Commission and national authorities encourage and incentivise the awarding and recognition of credits under the European Credit Transfer System (ECTS) for all forms of online courses.

Therefore, more research is needed to provide an understanding of how to use the full potential of e-assessment procedures to transform students' learning and teachers' work in this new personalised environment that promotes authentic learning and assessment (Whitelock, 2009).

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