Chapter 5
Meeting Higher Education Expectations in the Digital Age and Reliability of Assessment in E-Learning Settings

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ABSTRACT

As online and blended learning increasingly become common, higher educators and researchers need to rethink fundamental issues of teaching, learning, and assessment in these non-traditional spaces. Fundamental issues of assessment and in particular reliability have not been well understood despite proliferation of e-learning in higher education. The chapter begins with a justification of the need to reconceptualize assessment and associated fundamental issues in e-learning settings. The author further articulates the distinction between reliability within the context of assessment for learning (formative assessment) and assessment of learning (summative assessment). The core characteristics of reliability are critically examined and exemplified using research insights in relation to how achievement of these characteristics enhances reliability and by implication validity of assessment. The identified characteristics include opportunities for explicit learning goals and shared meaning, documentation, and monitoring evidence of learning; and multiple sources of evidence of learning and multi-dimensional perspectives. Finally, conclusions and recommendations are offered.

INTRODUCTION

Ubiquitous Information Communication Technologies (ICT) continues to support innovative educational strategies and resources that have changed faculty role in light of how teaching and learning occurs in the knowledge society. Of particular relevance is how the advent of ICT has coincided with and stimulated changing expectations in 21st century higher education. In the current knowledge society, it is imperative for higher education to offers learners diverse opportunities to acquire knowledge and abilities that will
enable them to meet 21st century professional demands. It is therefore agreeable that suitability of higher education calls for a shift in focus from teaching oriented pedagogies towards learner-centered pedagogies that align with educational expectations in the digital age (Gikandi, Morrow, & Davis, 2011). This implies that educators must facilitate competence-based learning and assessment; an approach whose focus is nurturing learners to engage in real-life scenarios through requirement to demonstrate relevant skills and knowledge within authentic contexts that mimic workplace experiences (Gikandi, 2018).

E-learning has become a common mode of education delivery in the knowledge society that is mainly characterized by Internet technologies and World Wide Web. The term e-learning as used in the context of this chapter refers to online learning that is enabled by ICT (Internet and/or mobile based); it does not require the teacher and the learner to be available at the same time and place, and constitutes 80% or more learning/teaching activities conducted through web-based ICT. One crucial element of effective e-learning setting is facilitation of social learning which involves development of ‘dialogic spaces’ that are situated within a realistic context (Gikandi, 2016; Wegerif, 2006).

Previous research in e-learning has shown its great potential to enhance learning and assessment (Gikandi, 2015). However, it is important to realize that e-learning on its own is unlikely to be adequate in meeting the needs of the 21st century that require innovative strategies to support learning (Ellis, Ginns, & Piggott, 2009; Gikandi, 2018). While many higher learning institutions are convinced of e-learning potential in transforming higher education, its effects on the quality of the learning process must be reconsidered to ascertain its adequacy in meeting the educational needs of the 21st century. That is, current knowledge society requires learners to have skills that enable them to respond to rapidly changing situational demands and constraints (Mateo & Sangrà, 2007). In light of this, it is important to recognize the key dimensions that influence how learners engage within the context of formal education. These dimensions are operationalized through the elements of an effectively designed learning environment namely: knowledge, learner, assessment and community centeredness (Bransford, Brown & Cocking, 2000). Empirical research has shown that synergy between learner and assessment centeredness is antecedent to knowledge and competence development in higher education (Gikandi & Morrow, 2015, Gikandi 2015).

As online and blended learning increasingly become widespread, higher education educators and researchers need to rethink fundamental issues of assessment (mainly reliability and validity) in these non-traditional e-learning spaces (Gikandi, 2015; Gikandi et al, 2011). Reliability of assessment is therefore one of the key issues that call for particular attention in online learning environments. This is mainly because of pedagogical uniqueness that comes with use of ICT in these new educational settings (Gikandi et al, 2011). This is particularly in relation to assessment serving the intended purposes, as well as understanding how competence based learning and assessment functions within e-learning settings. This is also important in relation to how learners interact with content and others (teacher and peers) as well as how evidence of learning is obtained and measured. In the interest of scoping the current chapter, the author focuses on exploring reliability of assessment within e-learning contexts from the perspective of how it influences competence based learning and its assessment. This focus is chosen because fundamental issues of assessment have not been well understood especially within e-learning contexts. In particular, reliability is one of the fundamental issues of assessment that has barely been researched within e-learning settings despite proliferation of e-learning in higher education; and the fact that reliability has a synergetic contribution to validity of assessment. This chapter therefore focuses on exploring how reliability can be enhanced in e-learning settings in order to achieve desirable competence based learning and assessment.