"Keeping It Real":

A Review of the Benefits, Challenges and Steps Towards Implementing Authentic Assessment*

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Abstract

This article presents the findings of a literature review on authentic assessment and forms part of a collaborative research project by lecturers from diverse disciplines in a large higher education institute. Assessment is an integral part of the learning process and , including authentic assessment, can have many benefits for the learner. They can encourage active student learning, improved achievement and greater retention of information, while also providing students with valuable real world experiences in a safe, supportive environment. Greater student involvement with peers and the wider community, along with the development of essential graduate attributes may also be achieved through authentic assessment methods. Challenges may be encountered in the form of student resistance, working with large groups and resource and time constraints. However, the literature indicates that these challenges can be overcome with careful planning, preparation and student consultation. A guidance template, in the form of an infographic, which outlines a number of steps has been developed from the literature. It is hoped that this template will demystify the process and will encourage lecturers to introduce methods of authentic assessment into their teaching, by providing a straightforward and clear guide to the process and what it entails. Such a template could also potentially be used to facilitate and encourage collaboration across disciplines.

Keywords: authentic assessment, alternative methods of assessment, active student learning, real world experiences.

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1. Introduction

Assessment is an integral part of the learning process as it frames what students learn and achieve (Boud, 2010; Brown and Race, 2013) and establishes the level of understanding and knowledge attained. If designed well, any piece of assessment can potentially serve more than one purpose and can facilitate summative assessment which grades achievement (i.e. assessment of learning) and formative assessment which aims to improve learning through active student participation and the provision of support and feedback (i.e. assessment for/as learning) (O'Neill, 2012). Authentic assessment is "a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills" (Mueller 2011, para 3). Examples may include the design of posters/infographics, videos, information booklets, portfolios, simulations, role-play and electronic resources such as apps and wikis (DeCastro-Ambrosetti and Cho, 2005; Eddy and Lawrence, 2013).

The purpose of this paper is to review the literature relating to the benefits, challenges and steps involved in implementing authentic assessment. Coming from diverse disciplines, the authors recognised that they shared common goals and a desire to introduce authentic assessment, but felt unsure how to go about this or whether or not it was appropriate to use in their discipline. They acknowledged that there may be a value for lecturers in having an introductory guide to authentic assessment and its implementation. This paper may be of interest to teaching professionals who are keen to explore more authentic assessment methodologies. As part of their professional development, lecturers may wish to develop new, authentic assessments which complement and enhance more traditional assessment methods (Nicol, 2010). By doing so the learning and teaching experience of both the lecturer and the student may be enriched.

2. Conducting the Literature Review

The literature review was conducted using a systematic approach. Firstly, the aims of the literature review were established and the main concepts were defined. In addition to "authentic assessment", it was decided that the key search terms would include "alternative assessment", "performance assessment" and "authentic tasks". The key

search terms were entered into Google Scholar, online library catalogues and electronic databases including Academic Search Complete, British Education Index, ERIC and Sage Journals. Priority was given to the most recent, peer-reviewed literature which were based on authentic assessment in higher education. It was not always possible to prioritise or retrieve information using the above criteria due to the paucity of literature found on some sub-topics such as the challenges/limitations of authentic assessment. The relevant literature was then classified into suitable categories. The analysis and synthesis of literature was guided by Cohen's (1990) Preview, Question, Read and Summarise (PQRS) system. The literature review was then framed using a thematic approach with the key themes arising from the aims of the review and the classification categories. The review was written using a collaborative process of planning, drafting and redrafting.

3. Benefits of Authentic Assessment

There is a drive towards redefining assessment in higher education (High Level Group on the Modernisation of Higher Education, 2013). A part of this drive is the use of alternative forms of assessment such as authentic assessment. The literature indicates that there are benefits for both the student and lecturer. The student population in higher education is becoming increasingly diverse (Higher Education Authority, 2016; Bohemia and Davison, 2012), bringing with them a wider range of backgrounds, expectations, skills and experiences. Lombardi (2008, p. 3) believes that authentic assessment "can motivate and inspire students to explore dimensions of themselves and the world that they might otherwise overlook". From a socio-cultural standpoint, authentic assessment offers students the opportunity to learn through engagement with peers and the wider community. It encourages the social aspects of learning by enabling active participation and deeper learning (Bohemia and Davison, 2012; DeCastro-Ambrosetti and Cho, 2005; Bloomer, 1997).

In recent years there has also been a growing emphasis on the importance of graduate attributes in higher education (Department of Education and Skills, 2011). Barrie, Hughes and Smith (2008) identify assessment as a key component in achieving such attributes. Authentic assessment has been linked with the

development of numerous graduate attributes by providing students with "real world" experiences, while protecting them from harmful or irrelevant elements (Sutherland and Markauskaite, 2012). Such attributes include critical thinking, team-work, problem-solving, effective communication and reflective practice (Keeling, Woodlee and Maher, 2013; Mueller, 2011; Palmer, 2004). The production of outputs and/or performances also enables students and colleges to provide clear evidence of these attributes to employers and higher education policy-makers.

Research has shown that following authentic assessment students are more self-regulating, autonomous learners (Swaffield, 2011). Authentic assessment engages students in processes and evaluations that are meaningful to them, both now and in the future. Students are influenced to move from being consumers of knowledge to creators of knowledge (Swaffield, 2011). Furthermore, authentic assessment facilitates a greater level of self-reflection amongst students (Aitken and Pungur, 2005) who are enfranchised not only in their own learning process but in the evolution and development of modules and courses.

From the lecturer's perspective, his/her experience may be enhanced as students become more engaged and more actively involved in their own learning (Falchikov, 2005). The lecturer's motivation and professional learning and development may also be enriched, through networking and collaboration with students, colleagues and external bodies.

4. Challenges of Authentic Assessment

Despite its many benefits, a number of challenges have been identified with regard to authentic assessment. Students may initially be resistant to authentic assessments due to uncertainty about what is required and how it will be marked (DeCastro-Ambrosetti and Cho, 2005). Some students may find authentic assessments challenging due to the increased emphasis on language and group-work which it frequently entails (Bohemia and Davison, 2012; Craddock and Mathias, 2009; Tanner, 2001). Keeling et al. (2013) highlight that students may also perceive that their varying abilities and levels of real world experience might impact upon their mark. To overcome such challenges, the literature indicates that clear guidelines and support

must be provided to students (Hart, Hammer, Collins, and Chardon, 2011). The development and provision of rubrics have been found to lower student anxiety (Andrade and Du, 2005), increase student confidence (Litchfield and Dempsey, 2015) and aid a sense of objectivity (Prestidge and Glaser, 2000) when using authentic assessments.

Another challenge that may be experienced by both students and lecturers relates to resources, in particular those related to time and cost (Palmer, 2004; Ewing, 1998). Authentic tasks may require or be perceived to demand a greater investment of time and resources than more traditional assessments (Hart et al., 2011). The literature indicates that such challenges can be overcome by selecting smaller-scale activities where time and financial support are relatively limited (such as an online blog) and providing a breakdown of tasks with clear time-lines (Litchfield and Dempsey, 2015). Also, when an assessment is deemed to be of relevance and value, Litchfield and Dempsey (2015) highlight that students are generally willing to commit more time and energy.

The provision of practical, real-world tasks may also create challenges when designing and implementing assessments among large groups of students. While large groups may restrict the use of very detailed, individual authentic assessments, strategies such as group-work, self-assessment, peer-assessment and the use of online technologies have been shown to facilitate the effective use of authentic assessments with large groups (UNSW Australia, 2016). Examples of authentic assessments conducted with large groups include the use of student blogs and posters with a group of 200 students (see Chermak, 2015) and electronic role-play using contextualised workplace scenarios with groups of 600 students (see Craft and Anscroft, 2015). These examples emphasise the importance of consultation and planning when designing authentic assessments.

5. Steps Involved in Implementing Authentic Assessment

Assessment, whether traditional or authentic, requires forward planning. While there may be different considerations for each, lecturers can draw upon their existing skillset when planning for authentic assessment. The following outlines some suggested steps in implementing authentic assessment, graphically displayed in Figure 1.

5.1 Identification of desired learning outcomes and alignment with task

Learning outcomes should be defined and constructively aligned with the task (see Biggs, 2014; Biggs and Tang, 2007). This ensures coherence between the intended learning outcomes, the teaching and learning activities, and assessment (McMahon and Thakore, 2006). This will enhance the students understanding of what is required to successfully complete the task (Mueller, 2011; Greenstein, 2010).

5.2 Student Communication and Consultation

Once lecturers have set the overall learning outcomes and criteria for the task, it is important that communication with students takes place. The first step is ensuring that students understand the principles of authentic assessment and its contribution to their learning and professional development. While lecturers have the ultimate responsibility, where possible, to increase the authenticity of the task, students should have some level of ownership in the assessment process (Leedham, 2009). This acknowledges that the student does not drive the task but contributes meaningfully, thus engaging and empowering them to become better learners (The National Forum for Teaching and Learning, 2016). Where appropriate, students may be consulted on a list of options to provide feedback on items such as group selection process, output etc. It is advised that the level of student decision making should be tailored to the demographic of the group i.e. course, academic level, class size, previous experience. This consultation may take a variety of forms, including in-class discussions and/or feedback sheets or online polls hosted on virtual learning environments.

5.3 The Development of Rubrics and Marking Criteria

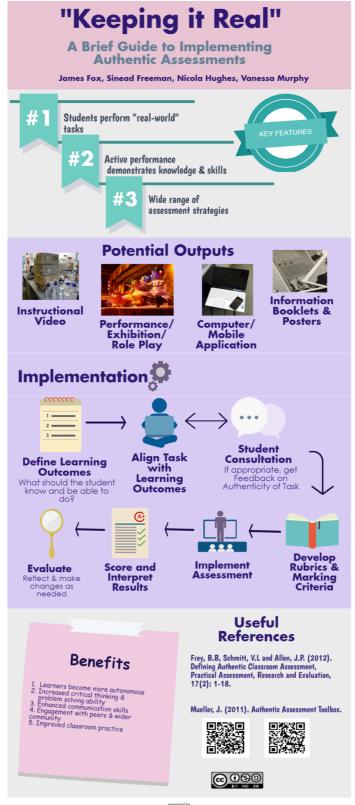
The next step involves the development of effective rubrics and marking criteria which align with standards and learning outcomes (see Stevens and Levi, 2013). Sufficient time must be allocated to explain the rubric to students, confirm guidelines, address student queries and demonstrate examples. This has been shown to play a key role in assisting students to overcome resistance and successfully complete assessments (Keeling et al., 2013; Fook and Sidhu, 2010; DeCastro-Ambrosetti and Cho, 2005).

5.4 Assessment Implementation, Scoring and Interpretation of Results

Implementation of the authentic assessment task then follows. The provision of prompt and continuous formative feedback to students is crucial throughout this process and has been linked with more effective student experiences of authentic assessment (Keeling et al., 2013; Fook and Sidhu, 2010; DeCastro-Ambrosetti and Cho, 2005). This allows the focus to be more on assessment for and as learning rather than assessment of learning (The National Forum for Teaching and Learning, 2016). Once students have completed the task, the rubric is then used to score results. An interpretation of results can be used to inform future assessment practice (Moskal, 2003).

5.5 Evaluation and Reflection

While evaluation and reflection are essential components of authentic assessment that should be carried out throughout the process by both the lecturer and the student (Keeling et al., 2013; DeCastro-Ambrosetti and Cho, 2005), a final evaluation and reflection at the end of the process can enable students to identify what attributes they have developed and how they can build on these in future real world experiences. The lecturer in turn can reflect upon the student feedback and experience to inform future use of authentic assessments.





6. Conclusion

Assessment is an integral part of the learning process and provides benefits to both the lecturer and the student. Authentic assessment, such as videos, information booklets, infographics and wikis, can encourage active student learning, improved achievement and the development of graduate attributes. However, it is acknowledged that authentic assessment is not without its challenges. Thus, it is essential that any lecturer who wishes to introduce methods of authentic assessment has a clear plan of what they want to achieve, and most importantly why. This requires clear guidelines for students and a good knowledge and understanding of the different steps involved. There is a need, therefore, for a general template with clear steps and guidelines to assist lecturers from different disciplines to incorporate methods of authentic assessment into their teaching. Such a template also has the added benefit of facilitating collaboration across disciplines. It is hoped that this template can be a useful starting point for those wishing to implement authentic assessment into their teaching practice.

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6 References

Aitken, N. and Pungur, L. (2005). *Literature synopsis: Authentic assessment*. Nha Trang University. Available at:

http://www.ntu.edu.vn/Portals/96/Tu%20lieu%20tham%20khao/Phuong%20phap%20danh%20gia/authentic%20assessment%202.pdf

Andrade, H., and Du, Y. (2005). Student perspectives on rubric-referenced assessment. Practical assessment. Research and Evaluation, 10(3), pp. 1-11. Available at: http://pareonline.net/getvn.asp?v=10&n=3.

Barrie, S., Hughes, C. and Smith, C. (2008). Locating generic graduate attributes in the Australian university curriculum: Taught? Mapped? Implied? Hidden? Or missing in action? Paper presented at the Improving Student Learning through the Curriculum Annual Conference, September 1–3, Durham.

Biggs, J. and Tang, C. (2007). *Teaching for quality learning at university*. 3rd ed. Berkshire: Open University Press/Society for Research into Higher Education.

Biggs, J. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education*, 1, pp. 5-22

Bloomer, M. (1997). Curriculum making in post-16 education: The social conditions of studentship. London: Routledge.

Bohemia, E. and Davison, G. (2012). Authentic learning: The gift project. *Digital and Technology Education: An International Journal*, 17(2), pp. 49-62.

Boud, D. (2010). Assessment 2020: Seven Propositions for Assessment Reform in Higher Education. Sydney: Australian Learning and Teaching Council.

Brown, S. and Race, P. (2013). Using effective assessment to promote learning. In L. Hunt and D. Chalmers (Eds.), *University teaching in focus: A learning-centred approach* (pp. 74-91). London: Routledge.

Chermak, J. (2015). *Authentic assessment of student learning in large classrooms: Oxymoron or opportunity?* Presented to the Geological Society of America Annual Meeting, Baltimore. Available at:

https://gsa.confex.com/gsa/2015AM/webprogram/Paper267643.html

Cohen, G. (1990). Memory. In I. Roth (Ed.), *The Open University's introduction to psychology,* Vol.2, pp. 570-620. Milton Keynes: Lawrence.

Craddock, D. and Mathias, H. (2009). Assessment options in higher education. *Assessment and Evaluation in Higher Education*, 34(2), pp. 127-140.

Craft, J., and Ainscough, L. (2015). Development of an electronic role-play assessment initiative in bioscience for nursing students. *Innovations in Education and Teaching International*, 52(2) pp. 172-184.

DeCastro-Ambrosetti, D. and Cho, G. (2005). Synergism in learning: A critical reflection of authentic assessment. *The High School Journal*, 89(1), pp. 57-62.

Department of Education and Skills (2011). *National strategy for higher education to 2030. Report of the strategy group.* Available at:

http://www.hea.ie/sites/default/files/national_strategy_for_higher_education_2030.pdp

Eddy, P. and Lawrence, A. (2013). Wikis as platforms for authentic assessment. *Innovative Higher Education*, 38(4), pp. 253-265.

Ewing, S.C. (1998). Alternative assessment: Popularity, pitfalls and potential. *Assessment Update*, 10(1), pp. 11-12.

Falchikov, N. (2005). *Improving assessment through student involvement: practical solutions for aiding learning in higher and further education.* London: Routledge.

Fook, C.Y. and Sidhu, G.K. (2010). Authentic assessment and pedagogical strategies in higher education. *Journal of Social Sciences*, 6(2), pp. 153-161.

Greenstein, L. (2012). Beyond the core: Assessing authentic assessment 21st century skills. *Principal Leadership*, 13(4), pp. 36-42.

Hart, C., Hammer, S., Collins, P. and Chardon, T. (2011). The real deal: Using authentic assessment to promote student engagement in the first and second years of a regional law programme, *Legal Education Review*, 21(1-2), pp. 97-121.

High Level Group on the Modernisation of Higher Education. (2013). Report to the European Commission on improving the quality of teaching and learning in Europe's higher education institutions. Luxembourg City: European Commission.

Higher Education Authority. (2016). *Higher education key facts and figures 2015/2016.* Dublin: Higher Education Authority.

Keeling, S.M., Woodlee, K.M. and Maher, M.A. (2013). Assessment is not a spectator sport: Experiencing authentic assessment in the classroom. *Assessment Update*, 25(5), 4-5, pp. 12-13.

Leedham, M. (2009). From traditional essay to 'ready steady cook' presentation: Reasons for innovative changes in assignments. *Active Learning in Higher Education*, 10(3), pp. 191-206.

Litchfield, B.C., and Dempsey, J.V. (2015). Authentic assessment of knowledge, skills and attitudes. *New Directions for Teaching and Learning*, 142, pp. 65-80.

Lombardi, M.M. (2008). Making the grade: The role of assessment in authentic learning. *Educause Learning Initiative*, 1, pp. 1-16.

Maclellan, E. (2001). Assessment for learning: The differing perceptions of tutors and students. Assessment and Evaluation in Higher Education, 26(4), pp. 307-318.

McMahon, T. and Thakore, H. (2006). Achieving constructive alignment: Putting outcomes first. *The Quality of Higher Education*, 3, pp. 10-19.

Moskal, B.M. (2003). Recommendations for developing classroom performance and scoring rubrics. *Practical Assessment, Research & Evaluation*, 8(14), pp. 1-5. Available at: http://pareonline.net/getvn.asp?v=8&n=14

Mueller, J. (2011). *Authentic assessment toolbox*. North Central College, Naperville, IL. Available at: http://jfmueller.faculty.noctrl.edu/toolbox/

Nicol, D. (2010). From monologue to dialogue: Improving written feedback processes in mass higher education. *Assessment and Evaluation in Higher Education*, 35(5), pp. 501-517.

O'Neill, G. (2012). *UCD assessment redesign project: The balance between assessment for and of learning*. University College Dublin. Available at: https://www.ucd.ie/t4cms/UCDTLA0044.pdf

Palmer, S. (2004). Authenticity in assessment: Reflecting undergraduate study and professional practice. *European Journal of Engineering Education*, 29(2), pp. 193-202.

Prestidge, L.K., and Williams Glaser, C.H. (2000). Authentic assessment: Employing appropriate tools for evaluating students' work in 21st-century classrooms. *Intervention in School and Clinic*, 35(3), pp. 178-182.

Stevens, D.D. and Levi, A.J. (2013). *Introduction to rubrics: An assessment tool to save time, convey effective feedback and promote student learning.* 2nd ed. Sterling: Stylus.

Sutherland, L. and Markauskaite, L. (2012). Examining the role of authenticity in supporting the development of professional identity: An example from teacher education. *Higher Education*, 64(6), pp. 747-766.

Swaffield, S. (2011). Getting to the heart of authentic assessment for learning. *Assessment in Education: Principles, Policy & Practice*, 18(4), pp. 433-449.

Tanner, D.E. (2001). Authentic assessment: Solution or part of the problem? *High School Journal*, 85(1), pp.24-29. Available at:

http://web.a.ebscohost.com/ehost/detail/detail?sid=a8792f6d-1c7a-428e-8843-bbd0f425d87b %40sessionmgr4002&vid=23&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d %3d#db=a9h&AN=5409234

The National Forum for the Enhancement of Teaching and Learning in Higher Education (2016). *Enhancement theme 2016-2018*. Available at: http://www.teachingandlearning.ie/priority-themes/enhancement-theme-2016-2018/

UNSW Australia. (2016). Assessment toolkit. Assessing large classes. Available at: https://teaching.unsw.edu.au/printpdf/619