

AUTHENTIC ASSESSMENT

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WHAT IS AUTHENTIC ASSESSMENT?

The notion of authentic assessment is not new. In some discipline areas, students have always been required to develop products and/or perform realistic tasks in order to demonstrate mastery. In many disciplines, students' demonstration of the mastery of various domains of learning objectives has not necessarily equated with a demonstration of their capacities in real-world settings. Thus, assessment for mastery should not necessarily be equated with the assessment of learning in authentic learning situations. Further, any method used to assess students' mastery of narrowly specified capabilities, does not preclude using methods designed to more comprehensively assess complex capabilities, but not to a mastery level. It's also worth remembering that in most cases assessment involves a judgement about whether, based on the evidence contained in the sampled performances of students, the required level of achievement has been reached. Naturally, this involves areas in the curriculum not being assessed. Authentic assessment does not imply comprehensive coverage of the curriculum or mastery, but both factors may be enhanced by well designed, authentic assessment.

In recent times, authentic assessment has been discussed in the context of broadening assessment practices across *all* disciplines in higher education and aligning them more closely with expected learning outcomes. Gulikers, Bastiaens, and Kirschner, (2004, p. 69) argue that there are differences of opinion about what constitutes authenticity because some authors emphasise the task and context and others refer to performance assessment. They make a distinction between authentic and performance assessment such that 'every authentic assessment is performance, but not vice versa'. (p. 69) They argue that the degree of fidelity of the task and the conditions in which the performance takes place, is greater in authentic assessment than in performance assessment.

Taking account of this distinction, Gulikers, Bastiaens, and Kirschner, (2004, p. 69) define authentic assessment as:

An assessment requiring students to use the same competencies, or combinations of knowledge, skills, and attitudes that they need to apply in the criterion situation in professional life.

So, in a real sense, authentic assessment is about making visible (produce evidence of learning in some way) and measurable (to some appropriate standard) a performance that

is a valid (by this we mean relevant) indicator that the identified elements of the curriculum have been learned in an integrated manner for the conditions in which they are ultimately intended to be needed or used. Authentic assessment does appear to place greater emphasis on the integrated performance of what has been learning, under conditions that require the coherent bringing together of the elements learned. Thinking about learning as being a combination of knowledge, skills and attitudes is easily understood by most educators. Without denying the value of seeing learning falling in these domains, bear in mind that authentic learning tasks usually are designed to elicit and assess performance in an integrated manner, as mentioned above. That is, the performance may represent an intricate set of relationships amongst knowledge, skills and attitudes not easily disentangled and subject to separate assessment of quality.

Khaira and Yambo (2005) argue that ‘authentic assessments should resemble meaningful performances in real world contexts’ and should ‘involve real life tasks with multiple solutions for the student’.

Similarly, Mueller (2006) suggests that the rationale for using authentic assessment usually springs from the idea that graduates should be ‘proficient at performing the tasks they encounter when they graduate’ therefore their assessment should require them ‘to perform meaningful tasks that replicate real world challenges’.

So authentic assessment has to do with students demonstrating that they know a body of knowledge, have developed a set of skills, and can apply them in a ‘real life’ situation and can solve real life problems. Authentic assessment is performance-based and requires students to exhibit the extent of their learning through a demonstration of mastery.

Poikela (2004) argues that in traditional assessment, reflective and social knowing are weakly assessed, and this can and should be addressed through the use of more authentic assessment. Mueller (2006) has described how authentic assessment differs from traditional assessment. (By traditional assessment we suggest that the authors are referring to curriculum design around a narrower set of predominately cognitive learning objectives where assessment methods mirror the requirement to absorb and faithfully reproduce knowledge but not necessarily to critique and use it in relevant ways.) Whereas with traditional assessment, curriculum content is determined first and assessment tasks then devised around it, with authentic assessment, the tasks students are required to perform are devised first, then the required curriculum is developed to enable students to successfully complete the assessment. In other words, ‘authentic assessment drives the curriculum’. Like Gulikers, Bastiaens, and Kirschner, (2004), Mueller (2006) suggests that authenticity is a continuum, that is to say, the extent to which assessment is traditional or authentic depends on how closely it reflects the attributes described below.

Traditional ----- Authentic

Selecting a Response ----- Performing a Task

Contrived -----Real-life

Recall/Recognition ----- Construction/Application

Teacher-structured ----- Student-structured

Indirect Evidence ----- Direct Evidence

(Mueller 2006: <http://jonathan.mueller.faculty.noctrl.edu/toolbox/whatisit.htm#attributes>)

ACTIVITY 1

Choose one or two of the current assessment tasks that your students are required to complete.

Consider each attribute at both ends of the continuum presented above, and mark with an X where you would place the tasks.

To what extent can you say the tasks are authentic? Choose one or two attributes on the right hand side of the continuum that you could work on to move your assessment further along the continuum towards authenticity.

WHY IS AUTHENTIC ASSESSMENT IMPORTANT?

Various pressures and opportunities have led to current strong interest in designing authentic curriculum, pedagogies, learning and assessment in higher education:

- Increasing concerns amongst educators and students about the lack of alignment between stated curriculum objectives emphasising the development of professional capacities and assessments tasks lacking relevance to those purported learning outcomes.
- Educational technologies enabling experiential learning and teaching in cost-effective ways in professional and vocational fields of study.
- Demands of external stakeholders (e.g. industry, the professions) for universities to offer more relevant courses and enhanced graduate employability, including the development of so-called generic or transferable practical skills.
- Educators' search for ways of making their courses more engaging to better meet the needs, preferences and circumstances of new generations of learners with more educational and life choices, and greater demands for their studies to be applied and useful.
- The need for teaching and learning experiences to develop knowledge and skills on the one hand, and supportive attitudes and values on the other to graduate informed, well-rounded and productive workers and citizens.

- Educators' need to teach their courses more cost-effectively by using appropriately self- and peer-assessment strategies to share judgment making on the quality of student work amongst key parties in the educational process.
- Ever-increasing and pressing (by this we mean demanding of attention) bodies of knowledge (both theory and practice) on the ways adults learn, and ways in which their learning can be best enabled in well designed contemporary teaching and learning environments in higher education.

ACTIVITY

We encourage you to discuss these questions with colleagues in your discipline and involved in the units you teach:

What are some of the pressures and opportunities you confront in your discipline to enhance cost-effectively the educational experience?

What could be done to design for more authentic assessment in your own units?

WHAT ARE THE CHARACTERISTICS OF AUTHENTIC ASSESSMENT?

In research and other papers pertaining to authentic assessment, several authors have articulated various characteristics of this approach. (See for example Gulikers, Bastiaens, and Kirschner, 2004, 2005; Hildebrand, 2005; Khaira & Yambo, 2005; Poikela, 2004; Smith and Koshy, 2005; and Perkins and Wajrak, 2005.)

According to consensus across this recent literature, authentic tasks:

1. Are perceived by students as being authentic. Perceptions of authenticity are subjective so students and teachers may have different perceptions of what constitutes an authentic task.
2. Are similar to the real work done in professional contexts and highlights situational and contextual knowledge including the acquisition of relevant professional attitudes and competencies.
3. Are performance-based and require students to demonstrate mastery of professional practices. The closer the tasks are to real practice, the greater the degree of authenticity.
4. Reflect clear alignment between desired learning outcomes, curriculum content, and future career-based knowledge.
5. Integrate required workplace skills with university academic requirements
6. Emphasise assessment for learning purposes rather than just for grading, and incorporates social, cognitive, and reflective processes of learning.
7. Are fair and free from bias so they do not advantage or disadvantage any groups of students
8. Are motivating, enjoyable, sustain interest, and are challenging, but achievable
9. Are based on criteria that have been developed with, or negotiated with students to ensure they understand the nature of the task and what constitutes quality in terms of the outcome.

10. Are focused in ways that ensure there is neither too little nor too much assessment.
11. Achieve an appropriate balance between tasks that are too complex and too simple.
12. Often incorporates self, peer, and client assessment in conjunction with academic teacher assessment.
13. Ensure that students have opportunities to develop critical thinking and problem solving skills needed in professional situations, as well as the cognitive and performance skills relating to graduate attributes
14. Provide clear evidence that students have achieved the desired learning outcomes
15. Require timely feedback relating to criteria that students can act upon
16. Are quite often interdisciplinary because that reflects many real world contexts

The above characteristics have no reasoned order and many are not unique to authentic assessment (e.g. 10, 11, 13, 15.), however each illuminates something about approaches to authentic assessment.

ACTIVITY

Take some time to reflect on each of the characteristics above in relation to your current assessment tasks.

Frame each characteristic in terms of a question and rate what you currently do by giving yourself a score out of 10.

Having regard for the fact that improving the authenticity of your assessment tasks should benefit students' learning irrespective of your discipline area, discuss with a colleague the practicality of implementing assessment tasks that are in line with the characteristics above.

Choose at least one characteristic to incorporate in your assessment for next semester.

DESIGNING AUTHENTIC ASSESSMENT

As we saw from Mueller's diagram, there are degrees of authenticity and some disciplines may demand a greater degree than others, particularly those that are vocationally oriented. However, to reiterate, students in all disciplines will benefit from a broadening of assessment tasks that reflect the principles underpinning more relevant, authentic assessment. A broadening of assessment tasks can also improve the validity and reliability of the assessment regime as a measure of student learning. It can also help to ensure fair and equitable assessment. These issues are also central to justifications for authentic assessment.

The WEAC website (<http://www.weac.org/resource/may96/perform.htm>) on performance assessment contains a section on developing performance tasks that outlines a three-step process. These are:

Step 1. List the skills and knowledge you wish to have students learn as a result of completing a task.

Step 2. Design a performance task which requires the students to demonstrate these skills and knowledge.

Step 3. Develop explicit performance criteria which measure the extent to which students have mastered the skills and knowledge.

For each step, a series of questions devised by Herman, Aschbacher, and Winters (1992) are posed to guide the development of tasks.

Framework for designing authentic assessment

In more recent work, Gulikers, Bastiaens and Kirschner (2004, pp. 70-77) suggested a five-dimensional framework for designing authentic assessment with pertinent questions to consider in relation to each dimension. Their framework includes:

(1) **The task**; has to be one that involves the students in carrying out activities that reflect what is done in professional practice.

What do you have to do?

(2) **A physical context**; real places of work are different from institutional learning environments, so the assessment should mirror the way knowledge, skills and attitudes are used in real contexts.

Where do you have to do it?

(3) **A social context**; an authentic assessment task should involve social processes that are equivalent to those in real life situations. These may or may not include teamwork and collaboration depending on whether these characteristics are demanded in the real context.

With whom do you have to do it?

(4) **The assessment result or form**; has to involve a product or performance, demonstration of competencies, array of tasks, and oral and/or written presentation to others

What has to come out of it? What is the result of your efforts?

(5) Criteria and standards;

How does what you have done have to be evaluated or judged? (pp. 70-77)

In his Authentic Assessment Toolbox, Mueller (2006) provides useful advice on how to create authentic assessment tasks and develop appropriate rubrics. Although it pertains to secondary school education, the concepts can be applied at tertiary level.

Variations can occur in the level of authenticity for each dimension. The greater the degree of authenticity for each, the closer the task comes to resembling authentic assessment.

In higher education institutions with their funding and structural constraints, the reality of designing and implementing quality authentic assessment tasks can be quite difficult. However, some degree of improvement is always possible.

ACTIVITY

Work with a colleague to design an *ideal* authentic assessment task for your students based on the five dimensions above, ideas discussed in the Authentic Assessment Toolbox (Mueller, 2006), and on the WEAC website.

Now consider any factors in your institution that might constrain the implementation of such a task. Are there ways of circumventing the constraints in order to maintain the integrity of the task? If not how might the task be modified to retain some authenticity in each dimension?

If you are interested in further papers on authentic assessment go to the Assessment Resource Centre (<http://www.polyu.edu.hk/assessment/arc/>) and click on Assessment Practice Contributions. Fill in the required fields using 'authentic assessment' as the theme.

PRACTICAL TIPS

- Definitions of authentic assessment in the literature can be quite pedantic, but not *all* assessment need fit the definition of 'authentic'. In many discipline areas, it may be appropriate to have a combination of traditional and authentic assessment tasks.
- If you are not in a position of being able to redesign a whole assessment approach, move incrementally towards more authentic assessment by changing one task and/or context at a time or an aspect of a task or context.
- Tasks are more likely to be authentic when they are designed with colleagues, including those from other disciplines.
- There is no need to 'reinvent the wheel'. Find out what your colleagues have done and consider ways of adapting or modifying existing approaches.
- The key is to devise a task that immerses students in a realistic 'project'. Ensure that they have time for planning, gathering the necessary information, consulting with others, revising and self-assessing.
- Ensure that students are clear about both the processes and outcomes expected of them in authentic assessment. Involving students in the development of criteria can be an effective way of ensuring this.
- Explore the possibilities offered by simulation technology for enacting authentic assessment. Developing such simulations does not mean that you need be part of large well funded projects and pursue major changes to practices. Small, incremental developments can be pursued successfully in this area.

CASE STUDIES IN AUTHENTIC ASSESSMENT

Some very good examples of authentic assessment as fostered by such things as e-simulations, teamwork and practice-based curriculum have been developed at Deakin over the past few years. These examples reflect progressive, contemporary approaches to assessment. In the discipline areas in which the more authentic tasks are used, there is often a combination of authentic and more traditional assessment instruments such as examinations and/or essays. It is worth noting that in various disciplines and for a range of purposes in different physical settings, exams and essays (e.g. a swimming exam in physical education, essay writing in a professional writing course) may be forms of authentic assessment.

In the context of our challenge to create assessment tasks that test in an integrated manner 'knowledge', 'skills' and 'attitudes', Poikela's assertion (above) that 'reflective and social knowing are weakly assessed', is an important one, providing some justification for using the holistic and immersive nature of *simulated* conditions from which to generate complex human performances for authentic assessment purposes.

Consider each of the cases below and consider ways of making use of simulation technology, teamwork etc in your discipline area in support of authentic assessment:

1. **Journalism:** Hotcopy: Two resources help to explain this development as an example of an e-supported authentic teaching/learning experience, namely: Stephen Segrave, 'Hotcopy: simulations for learning professional journalism which first appeared in *Training and Development in Australia*, vol. 3, issue 3, June 2003, pp.6-10 <http://www.deakin.edu.au/itl/pd/tl-modules/assessment/documents/hotcopyjournal2.pdf> and; Contemporary online teaching case, Stephen Segrave, Institute of Teaching and Learning, 'Universal design for accessibility in e-simulations in journalism and beyond': <http://www.deakin.edu.au/itl/teach-learn/cases/files/participants/segrave.htm>
1. **Nursing:** Contemporary online teaching case, Julian Pearce, Faculty of Health, Medicine, Nursing and Behavioural Sciences, 'Problem-based learning in nursing': <http://www.deakin.edu.au/itl/teach-learn/cases/files/participants/pearce.htm>
2. **Public Relations** Wallaby Forest: Contemporary online teaching case, Kristin Demetrious, Faculty of Arts, Using role play as an approach to online assessment: <http://www.deakin.edu.au/itl/teach-learn/cases/files/participants/demetrious.htm>
3. **Psychology** Mods and Rockers e-simulation, Boris Crassini, Faculty of Health, Medicine, Nursing and Behavioural Sciences, ITL Teaching and Learning Recorded Seminars 2006: <http://www.deakin.edu.au/itl/workshops/past-presentations.php>
4. **Law:** Client view e-simulation: Julie Cassidy, Faculty of Business and Law, ITL Teaching and Learning Recorded Seminar 2006: <http://www.deakin.edu.au/itl/workshops/past-presentations.php>
5. **Criminology:** Forensic Interviewing of a Child, Martine Powell, Faculty of Health, Medicine, Nursing and Behavioural Sciences
6. **Information Systems** First Australian Bank ATM project: Jacob Cybulski, Faculty of Business and Law, ITL Teaching and Learning Recorded Seminars 2006: <http://www.deakin.edu.au/itl/workshops/past-presentations.php>
7. **Architecture and Construction Management:** Jeremy Ham, Faculty of Science and Technology, ITL Teaching and Learning Recorded Seminar 2006, 'On evolving an IT-enhanced authentic curriculum': <http://www.deakin.edu.au/itl/workshops/past-presentations.php>
8. **Architecture and Construction Management:** Richard Tucker, Faculty of Science and Technology, ITL Teaching and Learning Recorded Seminar 2006, 'Teaching Group Design Problems - some tips from practice and research': <http://www.deakin.edu.au/itl/workshops/past-presentations.php>
9. **Politics:** Contemporary online teaching case, Peter Haeusler, Faculty of Arts, 'An online approach to project-based assessment in politics': <http://www.deakin.edu.au/itl/teach-learn/cases/files/participants/haeusler.htm>
10. **Business and management:** Contemporary online teaching case, John McWilliams, Deakin Business School, Faculty of Business and Law, 'Simulating roles in real world organisations': <http://www.deakin.edu.au/itl/teach-learn/cases/files/participants/mcwilliams.htm>

For those of you particularly interested in the potential of e-simulations, you might wish to consider from the cases above how:

- **knowledge, skills and attitudes** can be fostered in an **integrated fashion (Capacities)**
- through the **holistic** and **immersive** nature of such simulated conditions **(Conditions)**
- in order to generate **desired professional performance (Performance)**
- for assessment purposes **(Value)**.

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