Online learning good practice — TEQSA

Expert advice on designing authentic assessments for online delivery[1]

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Recent social isolation policies have resulted in a wholesale move to online education including assessment. This move has been accompanied by an increased concern about whether the learning products being assessed are those of the students enrolled in the study program. This concern about students' academic honesty in relation to assessment is not new as it also applies to assessment carried out in face-to-face learning programs. However, the sudden and pressing need to convert hitherto classroom-based curriculum assessments to on-line assessments in this time of social distancing underscore the responsibility that educational institutions need to use processes that will help to authenticate that the work submitted is that of the students enrolled.

Students' reports in research on the matter of academic honesty claim that when they undertake assessment online that they are either more likely to be honest or that there is no difference between assessment online or face-to-face classroom based assessments (Grijalva et al. 2006). Despite this assurance from research, there are steps that institutions can, and should, take to ensure the integrity of the online assessment processes so that the community can be assured that the educational outcomes of the program have been achieved by each student. These processes include:

- Institutional responsibilities to provide:
  - Polices that alert and guide students, staff, invigilators and proctors relating to their individual responsibilities, in terms of conduct of all assessments, including examinations.
  - Resources that enable the authentication of student assessment participation.
  - Professional learning opportunities to ensure the assessment literacy of those involved in designing and managing assessment.

- Academic Leadership responsibilities to ensure:
  - Institutional policies are adhered to in relation to assessment design and management.
  - Assessment moderation occurs so that effective practices are evident in assessment designs.

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[1] See also *Expert Advice for Student Authentication of Online Assessment.*

Institutional Responsibilities

Institutions need to **re-examine their assessment policies** to ensure that they enable good practices in this time of rapid social change. For example, does the policy permit an increased number of tests and quizzes that some disciplines and subjects need to ensure that students in the early years of study are building a knowledge base that is accurate? Some policies limit the assessment to three items in a semester, but in an online environment change may be required for some subjects, especially at the entry level. Academic staff who are designing assessments need to be consulted as to the changes that are needed in the existing policies to enable the types of assessment that are feasible and important in the new conditions without undue lag times.

Institutions need to consider the provision of **adequate authentication resources** to conduct hitherto invigilated examinations that are now to be online examinations. This can involve electronic means to authenticate the student identity as the exam participant and providing extra staff to invigilate or proctor online exams.

Academic Leadership Responsibilities

In this time of rapid adjustment, academic leaders need to have a detailed understanding of the particular challenges being experienced by staff who are conducting the assessment. Do solutions align with the institutional policy? Questions need to be raised to ascertain: if there is a need for new IT resources; whether students have adequate IT resources to meet new technical demands to engage in assessment; whether additional staff are needed to authenticate student identities in exams, if there a need for staff collaboration and additional professional learning to assist them to design a limited number of new approaches to online assessment.

Teaching Staff Responsibilities

Teaching staff responsible for the design and management of assessment regimes need to ensure that they are sufficiently assessment literate. Sessional staff and students may wish to familiarise themselves with the institution policies in regard to assessment, academic honesty and integrity and the need for student authentication.

Authentication Processes for Online Assessments

Commonly used online assessment tasks that contribute to the assessment grade include: end of course examinations, extended writing in the form of essays and projects, portfolios of evidence of learning, tasks, team work, quizzes, reflective writing in blogs, and chat room contributions. This is not an exhaustive list of possible assessment tasks, but the following will outline and evaluate some of the means that can be used to authenticate some forms of student assessment and identify the implications for higher education institution (HEI) management.

Assessment task	Authentication	HEI Implications	Commentary Strengths /Limitations
Examinations	1. *Unique Identity Code* (UIC) assigned on students' application to sit exam.	- UIC policy and processes included in assessment policy -Inform staff and students	Some students may be willing to sacrifice their security. IT set up costs
	2. Successfully answer *Online Challenge questions* prior to commencing exams	- Establish database of student info to be used for identification purposes. -Consider student privacy - Assessment policy	As above. Cost of proctors.
	Exam proctors/ invigilators use *webcams and photographs* to verify student sitting the exam	Employment and training of proctors.	As above.
	Open book exams (OBE)+ proctors + webcam recording of student during the examination	Preparation for students for OBEs to ensure they prepare adequately.	Good students do well; unprepared students fail to use exam time effectively.
Essays	*Staged submission:* student submits title and plan for the essay; feedback provided; use of feedback demonstrated in the next stage of draft submission.	Ensure staff are familiar with consequential feedback processes.	Are they appropriate for the course? Could more authentic tasks be given?
	Brief writing exercise to be used to compare writing styles between that and the larger essay.	Ensure staff have the capability to carry out writing style comparisons.	Examples provided in the following text.
Projects	Staged submission with feedback at each stage to be incorporated into the final submission. Consultations with the tutor, or in-progress presentations to class or study group on agreed dates	As above for essays.	Can constitute more authentic assessment and can be included in an employment-seeking portfolio.
Portfolios	200-300 word commentary against each learning outcome in which students describe the evidence in the portfolio of tasks and learning activities undertaken to achieve the learning outcomes.	Constitutes a cultural shift in assessment that staff and students need to learn.	As above.
Team work	Students assigned to teams of four to work on a project that will be presented in a PPT presentation for the rest of the class and the tutor. Evaluate the team function early and trouble shoot difficulties. Students self and peer evaluate.	As above. The final grade can be shared proportionate to the input of each student. Students who do not contribute do not get a grade and do make-up work for a pass at best.	As above.
Reflective writings, weekly quizzes	Short and regular writing and quizzes that demonstrate accurate and incremental knowledge building. Webcam recording of the student undertaking the task can be taken.	These are more appropriate for early years of a program of study. Later years should have a knowledge base and be applying it.	These tasks are evidence of student engagement, and can be non-graded 'work required' but needed to assign a final grade.

Effective Assessment of Student Learning

Ensuring the integrity of the outcomes of higher education is a growing concern world-wide and is a responsibility of every higher education institution and every academic leader and teacher. Higher education institutions have become familiar in using electronic systems for checking the originality of student texts and preventing plagiarism. It is also important to note that students are more likely to engage in their studies when they have a developed sense of trust in their tutors, and where assessment is designed to support and foster learning rather than a vehicle to trick students (Carroll, J. 2009). Assessments should be a tool for learning for students and their teachers (Boud and Associates 2010).

Effective Assessment

Interpreting and grading student learning is a high stakes activity for teachers and students, with possible long-term consequences. Assessment occupies considerable resources, demanding complex technical, educational and ethical knowledge and skills in the design of assessment and its execution. The following points about assessment are well known in education, but it is useful to take the opportunity to reflect on them in this time of change and to review the degree to which these are shared values and conceptions and the ways we might execute them in practice.

There are five key dimensions of assessment:

1. Purposes (Why assess?)
2. Learning goals (What to assess?)
3. Learning activities (How to assess?)
4. Interpreting and judging learning (How to evaluate?)
5. Feedback and Reporting (How to use and report the outcomes?) (Rowntree, 1987)

Assessment has three functions (*These can be accomplished within a single task*):

- It *defines* what is deemed important for students to learn.

- **Assessment <u>FOR</u> Learning.**

- It *shapes the learning processes* through the feedback given, signalling how students should go about their learning. (Formative)

  Assessment <u>AS</u> Learning.

- It *assures the achievement of final learning outcomes* to the educational institution and society that the individual student has met the expected learning standards.

  Assessment <u>OF</u> Learning.

As a starting point in higher education, assessment design should:

1. Ensure that learning outcomes align with the higher education standards framework (threshold standards).

2. Be *authentic* and clearly aligned with the learning goals. Students engage when they can see the *relevance* of their learning efforts.

3. *Supporting and making learning possible.* When students feel supported in undertaking assessment, they learn to trust that the tasks are not meant to trick them but to enable them to achieve the knowledge and capabilities required. In these positive contexts, students become more engaged in their studies.

4. Foster student *self-regulation of learning* with regular feedback to enable them to become agents of their own learning and less dependent learners which is important in online learning.

5. Balance teachers' high expectations with enabling learning for students of diverse capabilities.

6. Ensure that the judgements of assessors are accurate and that they are a consistent representation of each student's capability beyond the immediate task.

7. Be efficient, requiring reasonable and feasible demands on both students and teachers.

Pit Falls in Assessment Design

Designing assessment may not be 'rocket science', but it is a field that is rich in research that can provide guides to better practice. Unfortunately, there can be an over-reliance on using what are regarded as common and traditional practices that, if challenged, can be found to not achieve what they are assumed to achieve. The following are just a few pitfalls in assessment design.

1. Using the wrong type of assessment design for the learning outcomes. All too often types of assessments that are familiar to the teacher and the students are ritually selected. As a result, we find the over use of examinations, quizzes and essays. These assessments are rarely challenged because they have such established traditions of use. The first question should be what aligns best with the level and kind of learning expected by the Australian higher education standards.

2. Expecting a bell curve in each cohort results. Students cohorts differ and thus the outcomes will differ, but it should be possible to explain the outcomes that evolve and there should be no attempt to force a presentation of the results on a bell curve. The outcome should be unambiguous linked to the achievement of the expected level of learning outcomes. (See Attachment A generic rubric)

3. Using the same assessment tasks every year. This includes using the same essay or exam questions or projects. While from a teacher's point of view, it might seem efficient to recycle assessment challenges, such practices encourage collusion between students, who might reuse and resubmit the work of a student from a previous cohort. While the style and subject of assessment can be similar in form, the focus should differ and be novel questions posed each year.

4. Poorly designed multiple choice (MCQ) exams that lower validity. (There are many ways of designing MCQ questions and further resources are provided at the end of this guide).

5. Similarly, essays are merely a tool of education and do not sufficiently prepare students for the extended writing tasks that will confront them when they graduate. Also, essays are the bread and butter of the paper mills that churn out essays for students to purchase. More authentic extended writing tasks have greater relevance for students and thus encourage their engagement as they can collectively result in a portfolio of evidence to show potential employers.

A remaining question

Should online social interaction affordances such a blogs, chat rooms be assessed and graded?

These activities are the process of learning that replaces the valuable peer interaction of a face-to-face classroom. They are important but attempting to grade such activity is open to too much subjectivity which can undermine trust. The same can be said for grading *participation* or *attendance.*

Conclusion

Good, effective, assessment encourages students to engage in their learning. Students engage honestly in their assessment task where there is trust between the students and teachers and a shared understanding that assessment is a tool for learning not merely a measure of learning. The more that this way of thinking becomes the basis of and education program, the less students will need to be coerced into doing their own work with threats of detection and it consequences.

Author's Bio

Janice Orrell is Emeritus Professor in the College of Education, Psychology and Social Work at Flinders University where she is an Adjunct Professor of Higher Education and Assessment. Her fields of investigation are Assessment and Work Integrated Learning in higher education. She was a Foundation Director of the Carrick Institute for Learning and Teaching in Higher Education responsible for Discipline-based Initiatives (DBI) and Resource Identification Networks (RIN). She has taught at all levels of Education for over 50 years including, early childhood education, in rural and remote schools, international education, aboriginal teacher education, nursing and medical education, post graduate teacher education and is a supervisor of research higher degrees in education.

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Engineering Institute Guide for Online Assessment
https://www.eit.edu.au/cms/resources/practical-online-learning-ebook/chapter-13-assessment-and-evaluation-of-students-and-online-learning-programs

CRADLE: Deakin University
https://www.deakin.edu.au/__data/assets/pdf_file/0003/2091567/07-cradle_academic-integrity-online_PM.pdf?_ga=2.263811528.551701677.1586298400-324399138.1528016360

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Attachment A: Generic Assessment Rubric

Assessment Attributes	Levels of Attainment			
	Developing	**Functional**	**Proficient**	**Advanced**
General description of the levels of attainment	Not yet to desired standard of knowledge or safe practice. Possibly a resubmit or a fail grade would be given.	Reached basic academic standards. Accurate knowledge of some facts and capable of limited safe practice. Work is rule based with limited or no translation and interpretation of concepts, skills and procedures and limited adaptations to meet situational factors unless aided. Would attract a pass grade at best, even if it displays a good standard of writing, grammar and referencing.	Has completely reached the expected standards of thinking and practice. Can function independently in novel contexts, adapting concepts, skills and procedures to meet situational factors. Demonstrates an appreciation of own limitations and can set personal learning goals. Given adequate teaching, assessment tasks resources, and student effort most students should be able to reach this standard. Would attract a credit grade.	Has gone beyond the basic expected standards. Exhibits high levels of independence and can use principles to generate new understandings and ways of completing procedures and can provide theoretically defensible arguments for their new interpretations and adaptations. Would attract a distinction or higher grade.
Knowledge and understanding	Limited to reproduction of required concepts and knowledge. Inaccurate reproduction of text and lectures. Cannot discuss concepts in their own words.	Encyclopaedic knowledge and can reproduce accurately required facts and definitions. Have adequate breadth, but limited depth of understanding of basic concepts.	Exhibits breadth and depth of understanding of concepts in the knowledge domain. Can use terminology accurately in new contexts and has transformed the ideas so that they can express them appropriately in their own words. Demonstrates an appreciation of the limits of their own understanding.	Exhibits accurate and elaborated breadth and depth of understanding of concepts in the knowledge domain. Knows how particular facts came to be. Demonstrates an appreciation of the limitations and temporary nature of conceptual knowledge in the discipline or field. Can generate and justify principles, protocols and hypotheses.

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Assessment Attributes	Levels of Attainment			
	Developing	**Functional**	**Proficient**	**Advanced**
Psychomotor skills and procedures	Cannot complete tasks and standard procedures unaided.	Can successfully complete most tasks largely unaided. Does not exhibit a capacity to make adaptations unaided to account for situational factors. Can practice safely under close supervision. Demonstrates limited capacity to evaluate their own behaviour and skill level and to establish personal learning goals.	Can independently complete all tasks and standard procedures successfully and safely. Can provide theoretical explanation for them. Can adapt standard procedures and protocols effectively to novel contexts and to meet situational demands and can theoretically defend the adaptations. Can critique their own practice and identify ways to improve.	Effectively executes procedures and skills that are embedded within a theoretical framework. Selects from a range of options, appropriate ways of proceeding taking contextual factors into account and providing a theoretically defensible rationale for doing so. Can prioritise and make compromises and provide a justification.
Communication skills	Poor verbal communication and listening skills accompanied by a lack of self-awareness of impact of their own communication on others.	Communicates ideas and relates sensitively to others. Can listen to the ideas of others and respond to them.	Communicates most effectively and explains ideas clearly. Actively listens to others and responds appropriately, reflecting a personal understanding of the viewpoint expressed. Asked follow-up questions.	Balances listening and responding. Synthesizes what has been heard and responds, evaluates and elaborates on ideas, offers and responds to alternative perspectives.
Use of mathematical ideas	Knows a few mathematical ideas and rules can use them with supervision.	Rule based, knows basic concepts and rules and can use them to solve problems and in novel contexts. Requires support for transferring to new situations.	Thorough and accurate understanding of concepts and processes and can analyse and apply them in new situations.	Uses principles and theories accurately. Abstracts and applies them in novel situations. Uses concepts to build new knowledge and understanding. Recognises the limitations of current thinking. Is open to new ways of mathematical thinking and problems solving.

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Assessment Attributes	Levels of Attainment			
	Developing	**Functional**	**Proficient**	**Advanced**
Reasoning	Personal and anecdotal.	Rule based, derived largely from authority (texts, teachers, authority figures). Mostly black and white thinking. Little interpretation or translation.	Can recognise competing explanations and can identify the relative merits and limitations of an argument or position. Can describe and defend their view or position.	Uses principles to formulate a position or an argument. Can articulate the limited nature of their argument and can challenge to boundaries of disciplinary understanding. Open to new information and to rethinking their own viewpoint.
Analysis	Personal and anecdotal.	Descriptive and anecdotal with limited use of theoretical frameworks. . Limited capacity to identify the complex factors within a larger idea or context. Limited capacity to synthesise a number ideas into a larger argument.	Can break large ideas, situations or problems down into components and explain each using the theoretical ideas and concepts of the discipline. Can synthesise a number of concepts or factors into a larger idea. Can evaluate the salience and limitations of arguments	Analysis is sophisticated with a balance of theory and personal reflection. Capable of generalising from personal reflection on theoretical ideas or real life experiences to formulate principles and evaluate the efficacy of ideas from a number of standpoints.
Ethico-moral reasoning	Black and white thinking. Dependent on the views of authority and experiences difficulty in formulating own opinion or in hearing the efficacy of another's opinion.	Multiplistic or relativistic thinking. Still largely dependent on the views of authority to form an opinion. Can hear differences in viewpoints but is persuaded by majority viewpoint. Difficulty in formulating conclusions.	Evaluates ideas to formulate and justify personal conclusions. Recognises the need for compromise in decision- making. Can recognise the competing interests in arguments and identify the ethical issues embodied in them.	Uses principles to decipher competing interests and views. Can elaborate on the ethical and moral positions inherent in their personal viewpoints and actions. Articulates a personal position, but is willing to accommodate and modify it should further persuasive evidence emerge.

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Assessment Attributes	Levels of Attainment			
	Developing	**Functional**	**Proficient**	**Advanced**
Professional and work based literacy	Fails to notice important information and factors in the workplace. Requires constant supervision. Unable to make independent decisions. Is not safe. Does not relate to colleagues and clients appropriately. Does not seek guidance through sensible questioning.	Can practice safely. Carries out most procedures without direct supervision. Notices basic contextual cues and asks questions. Attempts to relate to colleagues and clients. Functions largely through imitation, protocols and rules rather than through problem posing, critical reasoning and effective problem solving strategies. Finds little theoretical relevance for workplace practices.	Establishes personal learning goals. Practices safely, balances initiative and independence with seeking guidance and feedback. Uses/critiques theoretical learning in the workplace. Considers and prioritises alternative action. Relates professionally to colleagues and clients. Makes effective contributions to the workplace. Understands organisational structure, functions and contemporary social context and issues that impact on it.	Makes a major contribution to the organisation though judicious use of the academic learning. Has the capacity to notice important cues in the workplace environment. Can work independently and take initiative as well as co-operating effectively in a team. Investigates the organisation and understands the social, political and economic factors that impact on it. Establishes personal learning goals and monitors their own learning.
Cultural and global literacy	Fails to recognise cultural differences or issues. Does not recognise own biases or appreciate their culturally embedded values. Takes a fairly ethnocentric view on most issues.	Recognises their own viewpoint as one of a number of competing views. Understands that they have tacit personal biases to justify their opinions and actions. Recognises cultural differences and competing interests.	Recognises cultural differences and how they are enacted in the social life, economic privilege and personal and political empowerment and marginalisation.	Demonstrates a critical understanding of own cultural history and how it influences their interpretation of privilege and oppression. Able to articulate how social institutions perpetuate 'othering' and continued racialised practice and marginalisation.
Aesthetic appreciation	Is unable to engage in any discussion about aesthetics.	Is encyclopaedic in any discussion of aesthetics, using the language of lectures and texts appropriately, but reveals no informed personal views or ideas.	Is able to identify elements of a complex whole and can appreciate aesthetic qualities using course related concepts appropriately. Can compare the qualities of similar bodies of work.	Able to identify and comment on elements of a complex body of work. Demonstrates a capacity to understand the underlying ideology or genre of a body, critically evaluating its relative worth using course concepts. Suggests improvements for a body of work.

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Assessment Attributes	Levels of Attainment			
	Developing	**Functional**	**Proficient**	**Advanced**
Technological literacy	Is not confident in using technologies. Needs support. Rule based.	Largely rule-based, but can function independently. Can transfer some learning from one platform to another.	Confident, independent user of a variety of technologies and platforms. Understands underlying principles and uses this understanding to move between platforms and modalities. Is open to technological change and development.	A sophisticated and independent adopter of new technologies to solve organisational and informational problems. Can adapt technologies to meet personal preferences rather than adapting practice to standard platforms. Creative, innovative and critical interaction with technology.
Information literacy	Uses immediately available information with little discrimination. Cannot and does not independently seek out and locate required information.	Can seek out and locate required information with minimal support. Does not always discriminate effectively between sources of information.	Can independently seek out and locate required information. Is selective, effectively discriminating between sources of information.	Independently seeks out and locates required information. Is selective and discriminates between sources of information. Adopts effective processes for storage and retrieval of information.
Use of academic conventions	Absence or inaccurate use of referencing and citation conventions.	Basic referencing accurate and use of a bibliography and or reference list. Sometimes lacks consistency, but is a reasonable acknowledgment of the sources of information.	Use of academic conventions such as referencing and citation is accurate, consistent and appropriate for the discipline.	Use of academic conventions such as referencing and citation is accurate, consistent and appropriate for the discipline. Able to adapt the approach to different disciplinary conventions.
Use of academic writing and presentation grammars	Fails to demonstrate an understanding of what is expected in presentation of learning products. E.g. use spell checker, sentences need verbs, poor punctuation, written in note form, no logical structure to their assigned tasks, no concern for their audience.	Adheres to most basic expectations regarding the formatting and presentation of work. E.g., titles name on work, introduction, conclusion, and reference list. Has correct sections for reports, case notes etc. Spell checked and grammatically correct.	Adheres to all expectations and conventions with all expected attributes present. Some translation and interpretation of the conventions to suit personal style and the specific execution of the task.	All expectations and conventions with all expected attributes present but have been creatively interpreted to suit personal style and the specific execution of the task. A unique but appropriate presentation of work.

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