

Teaching and assessment in an online learning environment

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There has been a large increase in the number of higher education subjects (units) being taught online as a result of the impact of the coronavirus (COVID19) pandemic. Many subjects and courses previously taught in face to face mode are being rapidly converted to a form which can be used to teach similar material in an online environment to comply with social distancing requirements imposed by the Commonwealth and State governments. This is often happening in providers and fields which do not have a previous history of online learning, including some universities and a number of private higher education providers. Because of the urgency for getting this new mode of delivery up and running there is a possibility that the adaptation of the materials to the online environment, design of learning materials and the way the subjects are being taught have been quickly devised or translated from materials used in teaching face to face rather than being developed by online learning experts.

Converting face to face materials to an online environment

Providers' student learning management systems can provide a simple way of getting teaching materials into an online environment but simply the translation of materials used in face to face teaching to pdf files for example in learning management systems does not take account of the pedagogical differences in the way such materials can most effectively be taught. The way teaching is undertaken, individuals assessed and outcomes measured in terms of the results of assessment will differ between face-to-face and online learning. Adapting these materials and assessment so that learners may use technology more fully in an online environment without consideration of how students learn most effectively and how the online assessment fits with the stated learning outcomes for the subject/course do not represent high quality online learning. In revising assessment approaches for online learning, the principles of assessment described in the educational literature^{1,2} and opportunities for reform should not be overlooked.

This information sheet outlines the issues that need to be addressed in ensuring that subjects and courses previously delivered in face to face mode but which are now

¹ Baik, C and James, R (2014) Seven Strategic areas for advancing the assessment of learning in higher education. In Hamish Coates (Ed.) *Higher Education Learning Outcomes Assessment* Frankfurt: Peter Lang pp279-294

² Boud, D. (2010) *Assessment 2020 : Seven propositions for assessment reform in higher education.* Office of Learning and Teaching

being offered online remain of high quality and provide students with an excellent engaged learning experience.

Higher Education Standards Framework

The quality of courses and institutional teaching in higher education in Australia is managed through assessment for compliance with the Higher Education Standards Framework (HESF). Mode of delivery is taken into account by TEQSA in the registration of providers and the accreditation of courses in its assessment processes. Courses and subjects to be taught online are usually described in the materials submitted by the provider in advance of the approval process. If the subjects in the course are identified during accreditation and registration as to be taught online, evidence is sought for the degree of cohesion in the approaches to the teaching and assessment of the subjects; the availability and sufficiency of the technology resources which are to be used by the students; the appropriateness of the skills of the staff doing the teaching; the level of support provided to online students; and the need for student engagement in their learning.

The standards of the Higher Education Standards Framework are expressed generally and there are no specific standards solely about online or remote learning but there are frequent references to mode of study in the general statements of the individual standards. Any changes to subject content, assessment and delivery resulting from translation to online study must still meet the standards as specified.

The relevant HESF standards which need to be considered when changing from face to face delivery to online learning are identified in Attachment 1. In converting course materials for online learning it is important not to lose sight of the existing subject and course learning outcomes. These will not change with a change of mode of study but the nature of the assessment used to warrant the attainment of the learning outcomes may need to change. The teaching and support provided to students will also need to be reviewed and amended if necessary to take account of the different mode of delivery.

Issues for consideration

There are a number of aspects of teaching and assessment which can be impacted by a change in delivery mode as detailed in the HESF. These are elaborated below.

Course design and learning outcomes (Standard 3.1.4)

According to the standards each accredited course of study must be designed to enable achievement of expected course learning outcomes regardless of a student's place of study or the mode of delivery. So in changing the content and presentation of material for an online environment the course design must not be compromised and individual subjects must still align with the objectives of the course.



Constructive alignment^{3 2}(Standard 1.4.3)

Good practice in developing assessment tasks which are able to measure attainment of subject and course learning outcomes involves undertaking constructive alignment of the prescribed learning outcomes, and the assessment of the subject and course. In a shift between face-to-face study to online teaching, staff will need to be able to provide evidence that any adjustments made to the nature of assessment because of the new delivery environment are still appropriate for the learning outcomes for the individual subject and the course. The level of attainment expected for the new assessment tasks must be similar to that for the original subjects taught face to face. Ensuring that the original constructive alignment is maintained will assist in the formulation of appropriate assessment tasks and consistency in the outcomes between the different modes of delivery.

Formative assessment and providing feedback to students (Standard 1.3.3)

Good practice in assessment of student learning includes undertaking both formative and summative assessment of student progress. The online study versions of the course and subjects must also include both types of assessment. This may involve developing different types of tasks for formative assessment which take into account the fact that students will now be studying remotely. Different means of providing individual feedback on the outcomes of formative assessment tasks and the provision of this in a timely fashion is essential so that students can understand their progress through their courses based on their completion of subjects undertaken online. It is important that the formative assessment tasks are varied to allow identification of students' strengths and weaknesses. There may be increased pressure to use more automated assessment tasks such as short quizzes and tests which are easier to handle online, but there must be a range of assessment tasks which is sufficient to address the learning outcomes characteristics and ensure that students can demonstrate attainment of all of these.

³ Bloxham, S. and Boyd, P. (2007) *Developing Effective Assessment in Higher Education: A practical guide*. United Kingdom: McGraw Hill

Practical skills and application of skills (Standard 1.4.2)

One significant challenge in translation of subject and assessment content from a face to face to an online environment may involve a different approach to the teaching of practical skills related to professional practice or technical skills required for the particular discipline being studied. This may include teaching and assessment of these skills which will be essential for students to demonstrate to be able to progress to higher-level study or in later employment in the field. It may involve mastery of use of a piece of equipment or the training of students with human or animal subjects such as in the medical or veterinary sciences. Such training and assessment of how well the student has achieved competence in these skills cannot be ignored as these would form an important part of the specification of particular learning outcomes. A different way of assuring the competence of students in these skills will need to be found outside of a traditional laboratory or practicum environment to be able to assure competence on graduation.

Assessment and teaching of generic skills (Standard 1.4.2)

With the requirements of the Standards for courses to include learning outcomes relating to generic skills such as critical thinking or independent intellectual enquiry and other attributes such as collaboration, teamwork, flexibility, and communication, much of the face to face assessment of these skills has involved groups of students working together. The learning outcomes for these subjects are sometimes assessed jointly by the students themselves or by the teaching staff through practical demonstration of the skills in the face-to-face environment. Collaborative technology and online conferencing tools such as Zoom or Teams could replace previous face-to-face interactions in the assessment of teamwork and communication. Attention will need to be given to the finalisation of grades in these types of subjects with input from students and staff.

Support academic interactions between students outside of formal teaching (Standard 2.1.3)

Providers will need to consider how technology can be used to enable academic interactions between students outside of the formal teaching activities as required by the Standard. The establishment of chat rooms and use of social media for student use in discussing issues arising from academic studies may be useful in this regard.

Student safety and well-being (Standard 2.3.4)

Students may be concerned about the change to their preferred mode of study and some may not adapt well to the new learning environment. This may lead to heightened concerns about student safety and wellbeing as well as academic issues.

While the provision of support services is not part of the formal teaching process the standards require that providers advise students of actions they can take and staff they can contact remotely to gain assistance with their problems and to enhance safety and security online. Providers must consider how they will continue to provide support for these students in a remote learning environment. This could include one on one telephone consultations (e.g. with skype) with teaching staff and professional support staff to discuss some personal issues.

Staff skills and staff development (Standard 3.2.3)

Staff must be well equipped to deal with their new teaching environment. The standards require staff to have skills in contemporary teaching, learning and assessment principles **relevant to the discipline**, their role, and the **modes of delivery** they are engaged in. Providers should advise and mentor staff who are teaching online for the first time to ensure that they understand the common issues that arise in teaching online and how best to support students who might be having difficulties in this mode of study. Such arrangements should be spelled out to staff and be technology enabled to assist support staff who are having difficulties in adapting to the teaching approach in this new environment.

Access to learning support services (Standard 3.3.4)

In face-to-face teaching, students should expect to have access to appropriate learning resources such as library collections, use of IT software packages and physical facilities which are specified for the course of study. These support elements should be aligned with the learning outcomes for the course and be readily accessible to the students taking the subjects and course. This is also the case when the mode of delivery of subjects is changed to online. Access to learning resources should not present barriers that would not exist in face-to-face study and require the purchase of particular IT systems or equipment to enable students to study online. In summary students must have access to learning support services that are consistent with the requirements of their course of study, their mode of study and their learning needs. This includes arrangements for supporting students and staff maintaining regular contact with students who are off-campus. In the current pandemic this will generally involve using new technology to facilitate the contact with off-campus students both individually and in groups, and thinking of innovative ways of providing appropriate support.



Maintain academic integrity (Standard 5.2)

The issue of maintaining academic integrity of subjects and courses through assessment is a matter of increasing concern in the higher education sector. The changing of the mode of delivery to online study has potential to exacerbate the problem. It is necessary for providers to ensure that preventative action is taken to reduce risks to academic integrity. First, the provider should review its policies and procedures to ensure that they allow for additional challenges of academic misconduct which may be easier in an online environment. The current processes may require amendment and extra safeguards need to be built into teaching and academic management and assessment. The issue of the prevention of contract cheating in an online environment is discussed at length in the good practice note by Associate Professor Phillip Dawson, and on authentication of online assessment by Emeritus Professor Janice Orrell.

Conclusion

This note shows that there are a number of aspects of teaching and assessment which need to be considered in changing from a face-to-face delivery mode to one of remote and online learning. In providers with a long history of engaging in online learning, assessment has been developed to recognise the additional and particular challenges of teaching online and there is built up experience in staff in designing appropriate assessment and materials which lead to good student engagement in their learning.

All new subjects and assessment regimes in an online environment developed as part of the response to the corona virus pandemic must be part of a constructive alignment of learning outcomes appropriate to the course and subject of study and the way they are assessed. As noted, a change of mode of delivery does not change the learning outcomes but it may well change the nature of the assessment required and the integrity of the assessment itself, particularly in the case of experimental or practical skills-based outcomes.

It is essential that the quality of course design and development is not compromised and that the attainment of stated learning outcomes for all courses can be assured.

Author's Bio

Lin Martin was a Commissioner at TEQSA from 2015 to January 2020. In 2016 she completed a PhD at the Melbourne Centre for the Study of Higher Education on using assessment of student learning outcomes to measure university performance. Prior to that she was a senior manager and planner in a number of Australian universities.



References

- ¹ Baik, C and James, R (2014) Seven Strategic areas for advancing the assessment of learning in higher education. In Hamish Coates (Ed.) *Higher Education Learning Outcomes Assessment* Frankfurt: Peter Lang pp 279-294
- 2 Boud, D. (2010) *Assessment 2020 : Seven propositions for assessment reform in higher education*. Office of Learning and Teaching
- 3 Bloxham, S. and Boyd, P. (2007) *Developing Effective Assessment in Higher Education: A practical guide*. United Kingdom: McGraw Hill



Attachment 1 – Extract from the HESF Standards relevant to online teaching and learning

Standard	Issue	Detail
1.3.3	Progress and formative assessment	Methods of assessment or monitoring that determine progress within or between units of study or in research training validly assess progress and, in the case of formative assessment, provide students with timely feedback that assists in their achievement of learning outcomes.
1.4.1	Specification of learning outcomes	The expected learning outcomes for each course of study are specified, consistent with the level and field of education of the qualification awarded, and informed by national and international comparators.
1.4.2	Range of course learning outcomes	The specified learning outcomes for each course of study encompass discipline-related and generic outcomes including: <ol style="list-style-type: none"> a. Specific knowledge and skills and their application that characterise the field(s) of education or disciplines involved b. Generic skills and their application in the context of the field(s) of education or disciplines involved c. Knowledge and skills required for employment and further study related to the course of study, including those required to be eligible to seek registration to practice where applicable, and d. Skills in independent and critical thinking suitable for life-long learning.
1.4.3	Alignment with assessment	Methods of assessment are consistent with the learning outcomes being assessed, are capable of confirming that all specified learning outcomes are achieved and that grades reflect the level of student attainment.

1.4.4	Learning outcomes specified at subject and / or course level	On completion of a course of study, students have demonstrated the learning outcomes for the course of study, whether assessed at unit[subject] level, course level or in combination.
2.1.3	Learning environment	The learning environment, whether physical, virtual or blended, and associated learning activities support academic interactions among students outside of formal teaching.
2.3.4	Wellbeing and safety	A safe environment is promoted and fostered, including by advising students and staff on actions they can take to enhance safety and security on campus and online.
3.1.4	Course design and learning outcomes	Each course of study is designed to enable achievement of expected learning outcomes regardless of a student's place of study or the mode of delivery.
3.2.3	Staff skills and expertise	Staff with responsibilities for academic oversight and those with teaching and supervisory roles in courses or units of study are equipped for their roles, including having ... <ul style="list-style-type: none"> b. skills in contemporary teaching, learning and assessment principles relevant to the discipline, their role, modes of delivery and the needs of particular cohorts
3.3.4	Educational Support	Students have access to learning support services that are consistent with the requirements of their course of study, their mode of study and the learning needs of student cohorts, including arrangements for supporting and maintaining contact with students who are off campus.
5.2	Academic integrity	There are policies that promote and uphold the academic and research integrity of courses and units of study, research and research training activities, and institutional policies and procedures address misconduct and allegations of misconduct.



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