

Quality Compass



Navigating Assessment in a Digital Environment

Welcome to QAA's first edition of the Quality Compass. As Professor Mary Stuart said at the [QAA Scotland Enhancement Conference](#) earlier this year: 'we shouldn't only learn from disruption, we must learn to live with it'. The pandemic has placed particular pressures on the sector but, looking ahead, we can see the speed and volume of change is unlikely to abate; there is no steady state on the horizon. The Quality Compass aims to help you navigate and respond to likely challenges and potential opportunities.

This issue focuses on future challenges in assessment, in particular, the quality implications of moving assessment to a digital environment. Future issues will explore topics including modular qualifications, curriculum design and approval, and student engagement and success.

We offer Quality Compass as a conversation starter, linked to our wider membership offer. We are keen to engage with you and provide the opportunity to share your thoughts and practices. If you would like to contribute to future editions or respond to any issues we have covered in this issue, please contact us at membership@qaa.ac.uk

Welcome to the future

This edition of Quality Compass will explore some of the key issues around assessment in a digital environment. In particular, we will explore the concept of '**authentic assessment**' – how members can approach assessment from a **principles-based position**, what the **ethics of remote assessment** mean, and how to place **learner-centric** models at the centre of assessment strategy.

With the switch to blended and online learning, what has changed is the 'where' and the 'how'. The 'why' of assessment has, however, been brought under closer scrutiny as we have pivoted to different models and platforms for learners and teachers alike.



Academic scaffolding and assessment design

The primary focus while refocusing and adapting assessments for a digital environment, has been on achieving learning outcomes which are central to the quality of assessment. However, there is a danger that this can sometimes lead to a mechanistic approach and tick-box exercise that ensures all modular learning outcomes have been met, but has the potential to overlook the learning needs of the student and the ability to 'meet them where they are' on their learning and assessment journey.

Assessment design should be driven, not just by learning outcomes and the academic focus of the subject area, but also by a consideration of how the assessment will [benefit students in their future careers](#). As we see the rise of the 'portfolio' career and flexibility across and through a career trajectory in which graduates transition from one career to the next, future assessment focus is likely to be more strongly aligned to the competencies we want our graduates to exhibit, enabling that career flexibility and fostering multi-disciplinary ways of working. Questions of course quality and value for money is firmly on the UK government agenda, and graduate salary and progression to professional employment will play their part. Assessment can help promote the personal agency that students will need to navigate a changing world of employment and enterprise, which may not be wrapped up easily in a succinctly defined learning outcome. Learning outcomes are, of course, important but, as we move into a new era of higher education, they should not contain or inhibit what our students can achieve. This strikes at the very heart of what higher education is about... enabling our students to become not only highly-skilled professionals but capable and informed citizens who can positively impact society.

There are lessons to be learned from [TESTA](#), a National Teaching Fellowship Project that examined the benefit of orientating assessment to course/programme-level learning outcomes and reducing the burden of summative assessment, while building in more opportunities for formative feedback. The TESTA project found that assessment innovations at the individual module level often failed to address assessment problems at course level, some of which – such as, too much summative assessment and not enough formative assessment – were a direct consequence of module-focused course design and innovation. Higher education providers who engaged in the TESTA project found an upturn in student satisfaction with feedback on their assessed work.



Considering assessment aligned to course-level (rather than individual module-level) learning outcomes, has the potential to reduce the volume of summative assessment and instead makes it more evenly spaced across modules and the academic year. There are multiple benefits to this, such as an avoidance of 'bunching' of assessments which can place unnecessary stress on both staff and students. Spacing assessment more evenly across modules and the academic year can help encourage engagement with the subject and reflection on personal and academic competencies, subsequently identifying where further focus may be necessary.

In the future, course aims and learning outcomes, while central to curriculum design, will take a more pivotal role in assessment. This will ensure cohesion across assessment at course level and help guard against the unintended consequences of repetition and fragmentation of assessment and learning outcomes that can be created by focusing on the modular level, with modular learning outcomes commonly being over assessed. Course-level learning outcomes will be emphasised to support greater flexibility and student choice, while ensuring assessment is matched to the appropriate levels of learning.

Given the increasing policy focus on lifelong learning, **learner-centric assessment** will emphasise the future needs of students, who will increasingly come from a broader demographic profile and may opt to study on a modular basis – rather than a 'traditional' three-year undergraduate qualification – where assessment by necessity will be focused at the modular level rather than course level. In this model, assessments will be personalised to the learner's journey and there will be a fluidity in design that enables choice of assessment while ensuring quality.

Place, space and pace of assessment

Academic staff will be well-versed in discussions surrounding assessment of and assessment for learning. This discussion is still pertinent to assessment in a digital environment, but what is likely impacted by this new mode is the place, space and pace of assessment. Not being tied to the physical infrastructure of exam halls, and the timetabling complexity that can bring, may be liberating. However, as with teaching in a digital environment, this brave new world offers an opportunity to re-evaluate the principles and values that underpin our assessment regulations and procedures and do away with outdated approaches that are rooted more in tradition and a sense that 'we've always done it this way' than a strong pedagogic rationale.

Both workplace and academic competencies, as well as digital skills and applied subject-specific skills, will form the backbone of assessment. Peer and collaborative assessment will become commonplace and less daunting for students as we move towards a more interdisciplinary culture as a means of solving and focusing on 'real-world' issues. Subject skills remain important, but staff will become more adept (with support from their provider) at assessing competencies and the process of developing these competencies through continuous tutor-marked assessment, all of which is enabled by the flexibility of working digitally. Employers have long called for students who can work creatively, think critically and adapt to an ever-changing environment – what Sally Kift has described as 'STEMpathy'¹ – the need for the adaptation and diversification of skills to encompass digital technology, creativity and entrepreneurship, skills which can be seen as more important than subject knowledge (which can sometimes be developed 'on the job'). Graduate attributes and competencies take centre stage in learner-centric assessment. This will all be part of a drive for **authentic assessment**, that is, preparing the learner for the world of work (not just one specific workplace) and their contribution to creating a positive society and better future. Cognitive challenge is emphasised with assessment replicating real-work situations and issues that enable students to develop and use their creativity, problem-solving skills, teamwork and reflection – abilities highly relevant for employment. As Sambell, Brown and Race emphasise, used imaginatively, authentic assessment can enable students to become agents for change in their own lives and beyond, shaping their identity, building confidence and active citizenship.²

Assessment in a digital environment enables connections with employers and enterprise that may not otherwise prove possible, due to distance and other factors. Authentic assessment connects students with employers, enterprise and communities – not just as part of an end-point assessment but throughout a student's academic journey. Assessment opportunities that are authentic and project-driven will become the norm as students engage with, for example, real-world datasets to conduct secondary analysis of findings and real-world briefs from companies that are brokered by proprietary platforms and chosen by students for their assessment. Assessment briefs become more flexible to enable learner-centric assessment and the ability for **students to personalise their assessment journey**.



1 Professor Sally Kift, Learning from Disruption: Exploring What Counts in Higher Education, QAA Scotland Enhancement Themes Conference, June 2020

2 Sambell, K, Brown, S and Race, P (2019) Assessment as a locus for engagement: priorities and practicalities, Italian Journal of Educational Research, pp 45-62

Personalisation is at the heart of learner-centric assessment. Learner analytics help students identify their strengths and track their performance and engagement across all of their learning and assessment. Assessments are no longer 'set' but are instead discussed with students or they are given a choice from a range of assessments which can be tailored to their interests and needs. Learner analytics become the norm to provide insight into areas that a student may wish to further develop and use assessment for learning. This approach not only considers subject knowledge and personal competencies, but also the development of digital skills, all combined as an effective path to lifelong learning and enhanced reflexivity.

Some questions present themselves here. Given a learner-centric focus, how will we ensure quality? In this respect, promoting a rules-based approach to assessment has the potential to squeeze out the very creativity and flexibility we hope to enable. Echoing the regulatory environment in which higher education is situated, a principles-based focus on assessment can prove helpful here. **Setting out provider-level principles and parameters for assessment** can help ensure a quality core while creating an enabling environment whereby assessment can be contextualised across disciplines, subjects and competencies. We know many providers already approach their assessment strategies with a set of high-level principles that support decision-making and quality assurance.

There are concerns from some providers – and professional, statutory and regulatory bodies (PSRBs) too – that the opportunity for academic misconduct is more widely available when assessments are completed in a digital environment. Academic misconduct has been a focus for QAA for some time now with our [Contracting to Cheat in Higher Education guidance](#). From compiling this, we know that students under pressure may feel more inclined to engage in academic misconduct if the opportunity presents itself. Does the move to digital assessment accentuate this, or could it instead help us in 'designing out' some of the potential to cheat? We have already discussed a more even spread of assessment and this could also help reduce the pressure on students which might have led them to academic misconduct in some instances.

There is evidence that academic misconduct can be addressed through authentic assessment design, which is intended to be more reflective of how knowledge is used in real-world situations, and is touched upon in our Contracting to Cheat in Higher Education guidance. But we have to be mindful that there are differing opinions about whether academic misconduct can ever fully be 'designed out'.

Wherever possible, a variety of assessment methods should be used, to minimise the availability of opportunities for students to incorporate plagiarised work by another author, or previous work by the student, either within the level of study or across levels. Simple measures, such as ensuring that assessments are changed every year can help guard against a 'hand-me-down' culture and market for essays, and other more easily represented types of assessment. Providers should ensure that policies and procedures relevant to academic integrity are clear, accessible and actively promoted rather than simply made available.



It's not about the 'toys'

The move to digital learning and assessment models spotlights the tools and technology used to support and assess students, including platforms for automated marking of exam scripts and remote proctoring software for assessments.

With timescales squeezed and staff under relentless pressure, decisions can become driven by an 'act quick, act now' approach, which could be detrimental without the normal careful consideration of options and consequences. Tools that potentially relieve staff workload can seem enticing, but we should be wary of quick-win solutions that may promise more than they can deliver, or deliver elements we neither imagined nor wanted. As EdTech companies continue to move into this 'space' (at pace) then we are likely to be bombarded with solutions to our assessment 'problems'. **The future is one of an increased commercialisation of assessment management, which will become ever more prevalent and complex to navigate.**

Remote proctoring is one of these shiny new toys. Some PSRBs are prompting (if not outright requiring) providers to explore online invigilation and identity-checking solutions. Worldwide, the market is thriving, and proctoring start-ups are being bought up by major players in EdTech. Ben Williamson, in his article - [Digital data and the post-pandemic university](https://codeactsineducation.wordpress.com/2020/11/03/digital-data-post-pandemic-university/) - outlines the transformation towards a 'high-tech, digitally-driven, data-intensive, and partly automated university'.³ By reliance on 'digital tech' and datasets to inform strategic decision-making, the 'University 4.0' is driven by virtual learning environments created and sponsored by education technology companies such as [Blackboard](#) and [Moodle](#), and online companies such as [Coursera](#) and [FutureLearn](#), who partner with institutions to deliver and assess online degrees, short courses and digital 'badges'.



But the encroachment of EdTech solutions into higher education is not without controversy. Monitoring of students' homes over video while under assessment is common among these solutions. Some use humans at the other end while some use artificial intelligence (AI) - with accompanying horror stories about racial bias in facial recognition. Other examples hint at excessive responses to, for example, students repeating a question aloud to better understand it and falling foul of the remote invigilator. Keystroke logging⁴ is another product being offered which could be suited to particular assessment methods, but not others - the question then becomes whether the products on offer could influence providers' assessment design, rather than assessment driving product choice. And what happens to the data collected by these third parties?

At the core of any remote assessment methodologies should be an **ethics-led approach**, with perhaps a greater inclusion of the student voice than more low-profile alterations to assessment would normally prompt. At QAA, we are working on a scan of worldwide practice of remote assessment which we intend to publish before Christmas, and a further piece of work, available in the spring, will look at the underpinning principles to apply when considering online proctoring products.

3 Ben Williamson, <https://codeactsineducation.wordpress.com/2020/11/03/digital-data-post-pandemic-university/>

4 Keystroke logging refers to AI programmes that records whatever the student types, or pastes into, a word document. This can then be analysed to see if it's 'natural' typing, or copying from a second source.

The tools and technology should not be key drivers of assessment in a digital environment

Sir Paul Grice emphasised that technology is ‘not neutral and therefore it’s so important we engage in deep thinking around how we want to use it’,⁵ and it will become increasingly important for the sector to explore how emergent technologies such as the ‘cloud campus’, ‘data lakes’ and modes of blended and online models of delivery work alongside traditional pedagogies. This has the potential of not only being costly but of solving ‘problems’ we did not really have. It will be worth questioning what is driving investment in assessment management technology. Is it time pressures on staff related to marking? If so, can time pressures be eased by more of a focus on assessment timing and design?



Automated assessments

Automated assessments are likely to become more prevalent in some subject areas, whereby algorithms are used to randomise and draw from a bank of exam questions, ensuring that students do not receive the same exam question in the same order. Multiple choice question papers can be automatically generated and subsequently auto-marked, alleviating time pressures on busy academic staff. However, the question banks need to be devised, tested and regularly updated as we learn which questions ‘work’ and which ones cause students to struggle. Therefore, what may seem a quick win at first, can still be incredibly time consuming – it is just that the time is focused on different activities. This is not to say that automated assessments are not appropriate for some providers and within some contexts and subject areas, but there needs to be full consideration of why we are choosing these assessment modalities and how they enable the demonstration of and engagement with knowledge, rather than an ability to obtain marks through chance or probability alone.



Some subject areas (especially STEM) present their own challenges in digital assessment in relation to the evidencing of how a student has ‘worked out’ a problem. One provider’s workaround involved allowing extra time in exams for STEM students to photograph and upload their working out – a simple but potentially effective solution.

⁵ Sir Paul Grice, Learning from Disruption: Exploring What Counts in Higher Education, QAA Scotland Enhancement Themes Conference, June 2020



Planning for change

Anticipating change will become ever more important. We are unable to plan for every eventuality, but we will need to ensure we have given future scenarios due consideration. Assessment Futures' Panels which comprise staff, students and other relevant parties, can be established to take on the 'heavy lifting' of thinking and pre-empting what lies ahead, and may impact on the ability to deliver assessments as originally planned. Alternative options can be considered and devised so that realignment and/or refocusing of assessment can happen swiftly and effectively. Beyond this, an Assessment Futures' Panel could examine the provider-level principles that are driving assessment and why and how technology and digital assessment can positively contribute. These panels can give feedback to senior management and quality assurance and enhancement staff, and help do the 'thinking' ahead of when a decision is needed, such as we see at school level with Teach First and their [Future Terms Online Panel Series](#), which explores topics set to impact on future terms to help staff get 'ahead of the curve'.

Authentic assessment as discussed will require consideration of the volume of assessment to be factored into the design and planning to ensure this is manageable for students and staff. Planning will ensure that potential pressure points are avoided and appropriate staffing for the volume of marking will also need due consideration. Simple things like a moratorium on booking meetings during marking time can help, as well as ensuring staff have the technical resources and equipment to support assessment and that the volume of assessment is manageable for staff and learners. Other assessment approaches such as asking students to complete a portfolio of four assignments throughout their module but only marking two, have been suggested by some academics and projects such as TESTA (highlighted earlier), and could be considered by an Assessment Futures' Panel when discussing how to relieve the assessment burden on staff.

What happens next?

The future of assessment is closely tied to the rapid pace of technological change. We know from conversations with our members that a return to pre-Covid ways of teaching and assessing learners has been overtaken by the opportunities presented by the pandemic mitigations. Focusing on authentic learner-centric assessment, underpinned by guiding principles and an ethics-based approach to remote proctoring, will offset to some extent the increasing commercial approach of EdTech. More than ever, the sector in the UK has the opportunity to reaffirm the values that will sustain our educational philosophies from the aftershocks of the pandemic. As Sean Michael Morris notes: 'this is an opportunity to make teaching and education an even more meaningful experience. Because if we do discover that there's community in this [crisis] and that teaching and learning can be a collaborative effort, that enriches everybody. It teaches us something very new about what education can do.'⁶

We would be very interested to hear from our members on their work in navigating assessment in a digital environment. We have an ongoing strand of activity around digital pedagogy throughout the year. There will be an opportunity to begin discussing this at our December Pro-Vice-Chancellor breakfast briefing, and our Quality Insights conference will feature a theme on assessment, with keynotes and breakouts planned. Please also contact your Membership Engagement Manager if you would like to discuss how we may be able to further support you and your colleagues in navigating assessment in a digital environment.

Useful resources and further reading

<https://sally-brown.net/kay-sambell-and-sally-brown-covid-19-assessment-collection>

www.testa.ac.uk/index.php

[www.enhancementthemes.ac.uk/en/news-events/conference-learning-from-disruption-exploring-what-counts-in-higher-education-\(jun-2020\)/day-one-resources](http://www.enhancementthemes.ac.uk/en/news-events/conference-learning-from-disruption-exploring-what-counts-in-higher-education-(jun-2020)/day-one-resources)

www.enhancementthemes.ac.uk/evidence-for-enhancement/student-engagement-and-demographics/student-mental-wellbeing

www.fierceeducation.com

www.theremotesummit.org

<https://codeactsineducation.wordpress.com/2020/11/03/digital-data-post-pandemic-university>

<https://onlinelibrary.wiley.com/doi/10.1002/ntlf.30239>

www.jisc.ac.uk/reports/learning-and-teaching-reimagined-a-new-dawn-for-higher-education

www.teachfirst.org.uk/future-terms

www.jisc.ac.uk/guides/digital-wellbeing-of-learners

www.seanmichaelmorris.com/digital-pedagogy-lab

www.qaa.ac.uk/scotland/focus-on/technology-enhanced-learning

⁶ <https://onlinelibrary.wiley.com/doi/10.1002/ntlf.30239>

This document is published on the QAA Membership Resources site, which gives our members exclusive access to a wide range of resources. It is funded by membership fees.

Published - 17 December 2020

© The Quality Assurance Agency for Higher Education 2020

Registered charity numbers 1062746 and SC037786

www.qaa.ac.uk