Assessment to Support Student Learning: Eight Challenges for 21st Century Practice.

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Abstract

There are many challenges for the colleagues who teach and assess students in the twenty-first century, and in this article, we explore eight of these, proposing some practical ways forward building on the scholarship in the field, aiming to make assessment integral to student learning, fit-for-purpose, valid and reliable, inclusive and manageable for assessors. We argue for systematic development through training and mentoring for all who assess, and for programme-level approaches to assessment, rather than discrete approaches to assessment of separate modules that can lead to incoherent student experiences. We conclude by arguing that assessment should be authentic if it is to engage students and prepare them for life beyond the university.

Keywords: Assessment for learning, assessment training, authentic assessment, inclusivity, manageability plagiarism/contract cheating, programme-level assessment.

1. Introduction.

Assessment in higher education provides many challenges for higher education practitioners globally: many would argue that assessment is the key locus for interaction between students and their universities now that access to high-level information is available ubiquitously through...
various media, and students are able to study far more independently than when they were more heavily dependent on lectures and other forms of tutor contact for access to content (Barnett, 2000; Boud & Associates, 2010; Bryan, 2015; Sambell, Brown & Graham, 2017). However, the ways in which we evaluate student achievement and outcomes, and particularly the ways in which we guide students towards improvement and high achievement through feedback, continue to tax our capacities, especially since we are often working with larger cohort sizes than ever before. In this article, we propose eight key current challenges and discuss some directions through which we can advance solutions.

1.1. How can we design assessment that promotes effective learning and fosters student engagement?

Students need to become skilled at evaluating their own progress towards a learning goal via immersion in the process of developing their ideas and producing the work, rather than simply at the summative point, when, from a learner’s perspective, insight into how they are doing comes too late, at least in relation to that specific element of the curriculum. This of course inevitably raises vexed questions concerning resources, as nowadays hard-pressed academics have considerable demands placed on their time and are increasingly expected to work with larger and larger groups, so that producing detailed individualised teacher feedback comments on students’ formative work is not always feasible. However, we argue for alternatives in which students become actively involved in reviewing their own and each other’s work that can be extremely productive and may even have substantial learning payoffs. Nicol (2018) for instance, convincingly argues that providing carefully structured scenarios in which students are supported to actively generate (rather than simply receive) as much feedback as possible on an important formative learning task helps students refine their own ‘inner feedback.’ Empirical studies have also borne this out (Nicol, Thomson & Breslin, 2014). Indeed, for Nicol, internally-generated feedback is actually the essential, albeit invisible, means by which learners are able to interpret and assimilate external feedback, so helping them hone and develop their internal ear for quality and standards, and diverse approaches are germane to their capacity to make any change in performance or learning strategy.
1.2. How can we ensure good academic conduct and design out plagiarism and contract cheating?

One of the challenges we can’t ignore is that we need to be certain about ‘who did the work?’ There is now a great deal of evidence about the extent and nature of ‘contract cheating’, (Newton, 2018; Bretag et al., 2018). Students, using internet and digital communication, can get others to write their work for them – at a fee – therefore called ‘contract cheating’. Such work may pass straight through plagiarism-detection software, if it has been solely composed and supplied to the student who pays. Students can also download extracts from the internet, and Google-translate the work into another language, then another, then back to their home language, where with a bit of ‘tidying-up editing’ it will pass straight through the plagiarism-detection software unchallenged.

Some assessment design tactics may help reduce the incidence of the problem. For example, assignments which depend more on the particular experience of the individual student, with briefings for students to include critical incidence accounts or reflections on personal experience, may be useful. Alternatively, another strategy is to include an oral face-to-face element in the module’s assessment design, to check on veracity of submitted work. This might, for instance, involve two or three staff members giving each student a very short ‘micro-viva’, asking just a few probing questions about the work submitted to check the student’s understanding of what has been submitted. But to counteract such temptations, it is essential that we get students actually involved in how assessment works, so they feel ownership of the task of proving the success of their learning, knowing really well how assessors’ minds work when making judgements on their work.

Involving students more actively in an ongoing way in assessment and feedback processes helps open the ‘black box’ of assessment, so students aren’t left guessing about how they’re doing or unsure about what’s required. Next, we turn to the important issue of developing students’ feedback literacy (Carless & Boud, 2018) to ensure that feedback is viewed as a process of responsibility-sharing which is, to a large degree, owned by the learners and requires agentic learner engagement (Winstone, Nash, Rowntree & Parker, 2017).
1.3. How do we productively engage students with feedback processes?

The danger with traditional methods of assessment and feedback is that assessment tends to be done on students’ work by staff, and feedback tends to be one-directional from staff to students. Modern thinking emphasises students’ agency (Sambell, 2013), and assumes that feedback requires plentiful and ongoing dialogues between staff and students, not post-hoc monologue from staff to students. We can't carry on trying to use traditional, outdated assessment and feedback processes (Race, 2019). We can’t continue trying to give students lots of feedback in traditional ways, as there are more students, and research shows that merely ‘telling’ them what to do with their work does not work (Carless, 2006; Orsmond et al, 2013; Orsmond & Merry, 2013; Winstone, Nash, Parker & Rowntree, 2017). Feedback dialogues and productive interactions can help students know what’s going on when their work is assessed – and therefore produce better work (Merry, Price, Carless & Taras, 2013).

We argue that persisting with traditional written feedback doesn’t work: “Approaches that emphasise feedback as telling are insufficient because students are often not equipped to decode or act on statements satisfactorily, so key messages remain invisible” (after Sadler 2010). Two of the key exponents of dialogic, sustainable feedback, Carless and Boud (2018) stress that we want students to gain skills in making ‘evaluative judgements’ themselves on their work, rather than staff doing this. This builds on much recent work from Sadler, Race and others about the value of learning by making informed judgements – assessment as learning as Race (2014) calls it. The best way to open the ‘black box’ and let students into the assessment process is to use our face-to-face and other interactive time with them to lead them through the processes of assessing (in the same ways we employ when assessing):

- Their own work;
- Each other’s work;
- Good, bad and in-between examples we give them to assess.

We need to give students the opportunity to apply assessment criteria – to make informed judgements on their work, before they submit it for our assessment. When students use assessment criteria to make evaluative judgements on work, they internalise the criteria much more deeply than when we just explain the criteria to them. Even better, we can get students
themselves to design assessment criteria, and refine them by discussing them with each other. When students design criteria, they build a feeling of 'ownership' of the processes of assessing (Sadler, 2010; Rust, Price & Donovan, 2003; Sambell, 2011; Nicol, 2014; Race, 2019). Examining factors underpinning feedback literacy, Carless and Boud (2018) explain in detail the need to equip students to help them in:

- Appreciating feedback – seeing how important it is in the picture of their learning and how important their role is within this;
- Making judgements – becoming able to self-assess accurately their work before they submit it;
- Managing affect – becoming better able to handle the emotional dimensions of receiving positive and critical feedback;
- Taking action – really using feedback, building on it, putting it to work on their next submitted assignment.

We need to guide our students to optimise each of these processes, if we wish to use the processes of feedback and assessment to promote their ongoing learning (Sambell et al, 2013; Sambell, Brown & Graham, 2017). We propose enabling learning by actively involving students in their own and each other’s assessment. Carless and Boud (2018) suggest that involving students in giving and receiving feedback on each other’s work can help them to develop all of these abilities. Further, involving students proactively in the scholarship of assessment can be extremely illuminating for staff and students alike (Sambell & Graham, 2011; Sambell, 2013). Making assessment really work for learning requires face-to-face time, or online dialogue with students. Rather than fill teaching time with content, we need to give them the content quite quickly, then spend teaching time explaining it, discussing it and answering their questions. We also need to find out from students what they already know about the subject content and build on this whenever possible. When face-to-face time has high learning payoff for students, they are more likely to attend and be attentive.

1.4. How can we develop and implement inclusive assessment practices?

‘Inclusive assessment refers to the design and use of fair and effective assessment methods and practices that enable all students to demonstrate what they know, understand and can do’
Much of the research undertaken in this area concerns ensuring students with disabilities or other special needs are not disadvantaged by assessment practices that prevent them demonstrating their capabilities to the full (Adams & Brown, 2006, Waterfield & West, 2010) but the term ‘inclusive’ has in itself become much broader in scope in recent years, to encompass varied and changing dimensions including educational background (e.g. prior learning experiences, previous qualifications); dispositional factors (e.g. attitudes, preferences); circumstantial contexts (e.g. family or caring responsibilities, in employment); and cultural aspects (e.g. values, religion and belief) (Waterfield & West, 2010). We propose that assessors aiming to be more inclusive should:

- Review in advance of setting assignments how our assessment might impact differentially on students with disabilities including dyslexia and other disadvantages, and plan reasonable adjustments (as required by UK law) accordingly;
- Develop transparent approaches to assessment that give students ample guidance on how they are to be assessed and how marking is undertaken against criteria;
- Use, with appropriate briefing and rehearsal, a range of assessment methods beyond traditional written exams and essays (e.g. assessed posters, e-portfolios, open-book exams, critical incident accounts and so on: see Race (2014) for an expanded list) that enable diverse students to excel in different ways;
- Provide feedback approaches in a variety of formats (written, oral, face-to-face, online, individual, collective, and so on);
- Reduce overload and stress by scheduling incremental assessments across a programme rather than having them bunched up within limited time periods.

1.5. How can we make assessment and feedback manageable for staff?

Assessment needs to be manageable for staff and students if it is going to engage students in learning activities, which requires a systematic overview of tasks, so it makes sense regularly to assessment activities, particularly as courses and cohort-sizes change, to ensure that choices made in the past still make sense in the current time. Substantial assignments with large word counts which were previously manageable with modest numbers become unfeasible if cohort sizes double or triple, and one-to-one feedback opportunities can similarly provide challenges unless the format and approach to feedback is modified, perhaps by moving to group feedback,
or virtual Q&A surgeries. To make assessment and feedback manageable for assessors, we need to interrogate our assessment practices to ensure they work positively in our (and the students’) interests. This means, for example, querying required word counts and exam durations. In some nations it’s normal to write essays 5,000 words long and elsewhere it is expected they will not exceed 1,000 words, but many would argue (e.g. Race, 2019) that word length is not a proxy for quality, and often it is harder for students to write briefly and succinctly than it is for them to write at length, and this can reduce our marking workload. Similarly, exams can last anywhere from, say, an hour up to nine hours in some nations, and yet it is noticeable that students often write their best answers in the first part of a lengthy exam, so we might consider providing shorter ones.

Furthermore, while we would argue strongly for regular, incremental assessment, some programmes over-assess students by providing too many summative assessments, making less time available for formative feedback. In terms of feedback approaches, while it is clear that feedback can be a principal means by which students learn how to enhance their practices and outcomes, this doesn’t always need to be idiosyncratic, individual feedback on written assignments. We propose it is also possible to:

- Give feedback orally to groups of students in class time, using the opportunity to discuss frequently-made errors and talking through examples on screen of good and less effective practice. Tone of voice and body language can be used to ameliorate tough messages and to show students they are not alone in making common errors, for example about referencing their sources or displaying data in graphical form, and much time can be saved for markers if this is done collectively rather than painstakingly written on each student’s assignments. Such oral sessions can be recorded on video and shared via the VLE, to enable students to watch it more than once to reinforce key messages;

- Use written collective assignment reports, which can be handed out or emailed to students to perform the same functions, including sharing comparative cohort performance, pointing students to links offering guidance on, for example, citing sources or writing fluently and clearly, and showing illustrative examples of what good performance in this assignment looks like in the form of exemplars (Orsmond, Merry & Reiling, 2002) or model answers with explanations of why each element is considered valuable;

- Use assignment return sheets in which the criteria presented in the assignment brief can be utilised in a proforma and variations in weighting can be clearly identified. Commonly
a Likert scale or graded boxes are used to speed tutors' responses and space can be provided for individual comments. Such sheets can be completed fast by markers and appended to assignments to enable faster and more systematic feedback.

- Use statement banks which comprise regularly-used comments compiled by a marker or group of markers into a Word document, or repository on a platform such as Moodle, for insertion alongside electronically submitted work, thereby avoiding the drudgery of repeatedly writing the same thing on different students' assignments.

1.6. **How can we work with assessors to help them assess optimally: fostering assessment literacy for staff?**

Higher Education providers across the world are keen both to assure standards and retain and engage students, and since assessment and feedback are such crucial loci of interaction between students and the university, it’s important that we support those who assess them to do this well. The terms that students sometimes struggle with like ‘criteria’ and ‘weighting’, and issues around how strict word counts need to be, and what happens if an assignment cannot be submitted due to adverse personal circumstances, can also be taxing for new staff and those moving from a different nation or context. Assessors can also puzzle about how best to brief and support students prior to assignment submission and how to assure inter- and intra-assessor reliability.

As the HEA (2012) asserts: ‘Assessment practices in most universities have not kept pace with the vast changes in the context, aims and structure of higher education. They can no longer do justice to the outcomes we expect from a university education in relation to wide-ranging knowledge, skills and employability. In a massified higher education sector where tutor-student ratios have gradually been eroded, students can remain confused about what is expected of them in assessment. Efforts to make this transparent through learning outcomes, assessment criteria and written feedback have proved no substitute for tutor-student interaction and newer groups of students are particularly likely to need this contact.’ (HEA, op cit p.7). For this reason, for example, the UK’s Quality Assurance Agency (2018) asserted the importance of all staff who undertake assessment to be deemed capable of doing so, implying the need for training and mentoring for new and continuing lecturers.
To address this important matter, we argue that a practical and productive way forward is to encourage individual assessors and teams to think holistically about assessment and feedback design issues, carefully considering balance and sequencing of summative and formative activities and particularly focusing attention on students’ ‘future horizons’ (Reimann, Sadler & Sambell, forthcoming 2019) by providing and designing feedback processes that enable students better to understand what is required of them to enhance future assignments as well as clarity on errors needing remediation. We propose therefore that prudent and quality-conscious universities should implement planned programmes of training and/or mentoring to those new to assessment as well as those encountering new challenges and approaches.

This is too important to be left to chance. Such activities might include supporting mentoring by experienced colleagues, offering formal training opportunities including in-service workshops, encouraging staff to attend relevant conferences, or indeed steering them towards open access resources which are tailored to the needs of busy practitioners (Sambell, Brown & Race, 2018).

1.7. How can we implement programme-level assessment?

Students often experience learning in the form of the programmes they study rather than focusing on their individual components such as modules. This can leave students and other stakeholders including employers confused about the seeming incoherence of the elements they are studying discretely. Accordingly, we propose designing assessment strategies at programme-level within teaching and learning strategies, rather than module by module, since the strength and coherence of the programme is enhanced by the curriculum designers, teachers and assessors working together on a programme of study to ensure there is internal consistency and logical design. This is particularly true in terms of assessment, where it could be expected that students demonstrating skills and capabilities might be expected to become progressively more capable over a programme of study, and only a programme level approach can assure this (Hartley & Whitfield, 2011). Such an approach is also likely to avoid over-use of any one particular method of assessment, for example, portfolios or presentations, and can help to avoid clashes where the submission of multiple assessments is required by different module leaders at the same time, with concomitant stress for both staff and students. Peter Hartley’s NTFS Bradford-led project on Programme Level Assessment sets out to redress problems including:

- not assessing learning outcomes holistically at a programme level;
• the atomisation of assessment, often resulting in too much summative and not enough formative feedback and over-standardisation in regulations (Hartley & Whitfield, 2011).

This results in students and staff failing to see the links between disparate elements of the programme, over-assessment and multiple assignments using repetitive formats. Modules were often too short for complex learning and this tended to lead to surface learning and ‘tick-box’ mentality. Potential benefits of Programme Focused Assessment include the ability to integrate learning and assessment at the meta-level, ensuring assessment of programme outcomes, which commonly results in students taking a deep approach to their learning with potentially greater opportunities for allow for ‘slow-learning’ (Harland, McLean, Wass, Miller & Sim, 2015).

Students thereby tend to take greater responsibility for their own learning and assessment, becoming better at being self-regulated learners. Depending on how it is managed, Programme Level Assessment can reduce summative assessment workload for staff, although it should be recognized that reorganizing assessment across a programme requires some front-loaded review and design time, but those reviewed in the Bradford study suggest this has substantial long-term benefits in a variety of dimensions.

1.8. How can we make assessment more authentic and meaningful to students?

Authentic assignments involve engaging students in active learning that is meaningful and adds value to their study programmes (Sambell et al., 2013). Wiggins (1990) argues that “Assessment is authentic when we directly examine student performance on worthy intellectual tasks. Traditional assessment, by contrast, relies on indirect or proxy ‘items’ – efficient, simplistic substitutes from which we think valid inferences can be made”. Furthermore, he proposes that assessment can be regarded as authentic if we can draw valid inferences about quality from the work students produce. He proposes that we should aim to offer students assignments that present the student with the full array of tasks that mirror the priorities and challenges found in the best [teaching] activities and that attend to whether the student can craft polished, thorough and justifiable answers, performances or products. He says they must involve students being able to cope with potentially ill-structured challenges and roles, with incomplete information, that help them rehearse for the complex ambiguities of adult and professional life.
A valid assessment is one that has close relevance to the criteria, which are in turn constructively aligned to the stated learning outcomes of a programme. Effective assessment is highly relevant to ensuring that graduates can demonstrate the knowledge, behaviours, qualities and attributes that were described in the course outline or programme specification. Assignments that require students only to write about something, rather than be or do something, may not always be fit-for-purpose. It is important to consider how good assessment design can prompt authentic kinds of learning behaviours that we would wish to see (Sambell, 2016), and discourage those we don’t, including simple reproduction of text books or lecture notes in exams, plagiarism and other forms of poor academic conduct and uncritical use of internet sources, including cutting and pasting of text without considering its relevance and value.

Students learn more from assignments when they can perceive the value of the tasks they are being asked to undertake and when they can see potential future benefits in terms of employment and life fulfilment. For this reason, it is imperative that assessment is designed to be both meaningful and significant, rather than opaque and trivial. We argue that curriculum designers should review the extent that the assignments we require our students to undertake prepare them for interviews when they are seeking employment. Employers regularly argue for evidence on graduation of students’ skills and capabilities that are transferable to the world of work. Consequently, a diet of assessment that involves active demonstration of some or all of the following activities is likely to be well received by students and potential employers alike:

- managing time-scales and workloads with minimal supervision;
- identifying and solving problems creatively;
- weighing up arguments for and against a strategy of course of action, and providing a rationale for choices made accordingly;
- working together with colleagues in a group to produce a collective outcome;
- working autonomously with incomplete information and self-derived data sources;
- developing strategies to solve real-life problems and testing them out;
- talking a leadership role in a team, and using a range of strategies to influence and persuade colleagues to achieve a collective task;
- communicating project outcomes orally, in writing, through social media and/or through a visual medium;
- demonstrating resilience in the face of set-backs and showing the capacity to work through a complex task to its successful conclusion.
Designing assignments that enable students to develop these and other capabilities, should result in tasks which are engaging for students (Sambell & Graham, 2011; Sambell, Brown & Graham, 2017) where students see the point of putting more effort into their assessed work. This should also be fulfilling for the staff who teach and assess them.

2. Conclusion.

Good assessment and feedback are crucial to effective learning and probably have more impact on the student learning experience than any other factors. While it is not possible to eliminate all challenges to effective assessment practice, it is possible to ameliorate some of the issues that have historically beset fair and productive assessment by drawing upon the extensive scholarship in the field of the last forty years. As authors, we continue to review scholarly and evidence-based research and good practice accounts, and to build them into our own work as assessors and advisors of assessors, but such work is never complete. Further research continues to be necessary in achieving the goal of enabling assessment truly to support student learning.

3. References


