

Assessment and Feedback

Assessment and feedback are always two areas of teaching and learning that tend to suffer in course evaluations. Students clearly feel at a disadvantage. These were also themes that came up in my own module feedback (appendix) following the last academic year. Whilst students enjoyed the module and responded positively to teaching, they felt that feedback and assessment criteria could be further developed. Ramsden (2003, p.182) articulates well the meaning of assessment from the student lens: 'From our students' point of view, assessment always defines the actual curriculum.' This is also reflected by what students say. For example, when referring to session content students might ask, 'will this be on the assessment?', 'do we need to know this?' This suggests that the importance they assign teaching content is related to whether they believe it will be an examined component. Examinations and assessments being the formal gateway for student achievement. Constructive-alignment – a term coined by Biggs (1996) describes the relationship between what and how teachers teach, the intended learning outcomes and what and how they assess. All three components are aligned to each other. When designing assessments, we are therefore advised to link these to the intended learning outcomes (ILOs).

Taking this in mind, assessments cannot be designed without clear ILOs – a fact that has become clear to me over the last year. There are a number of educational taxonomies to help design curriculums and set ILOs. These taxonomies are classification schemes that organise a range of cognitive skills based on complexity. Some of these I have come across in my reading; Benjamin Bloom's hierarchical taxonomy and Biggs and Collis' (1982) Structure of Observed Learning Outcomes (SOLO). Bloom's (and its revised versions) being the most cited out of the two. When considering the two, Bloom's (the method applied this year) seems more appropriate to apply to my year one module – whereby most ILOs lie within the lower half of the hierarchy. I have also found Bloom's list of verbs (describe, list, explain) helpful in the design ILOs. Having read and understood more about the use of SOLO, I find myself leaning towards trialling this next year, with the help of my students. By helping students understand this taxonomy and integrating this in my teaching sessions, I believe students will be able to recognise the differences between lower-level (pre-structural) and higher-level (relational, extended abstract)

learning. Ramsden (2001) states that involving students in the production of ILOs and assessments can be extremely valuable to their learning and affect outcomes.

For my module, the high-stake assessment strategy came as two major elements; lab-based assignments (data acquisition, interpretation and discussion, example shown in appendix) and the final exam (multiple choice and short answer questions). The final assignment and the end of year exam fell at the height of the Covid19 pandemic – these components were therefore delivered online. These assessment methods are quite typical of a first-year undergraduate science module and by looking back I realise that these one-dimensional assessments did little to promote the higher order cognitive skills (analysis, evaluation etc) that I would have liked. Interestingly, the average module mark this year was 81% (module statistics; appendix), which is about 15-20% higher than I would have anticipated. Furthermore, the standard deviation shows little movement from this. This isn't unique to my module but is reflective of all modules for this first year of the course (module statistics; appendix). It is easier to assume that a higher module grade is influenced more by inappropriate assessment design than by excellence in teaching. Some UK universities have been under the spotlight recently to investigate grade inflation (a much debated topic following the 'marketisation' of universities), so it is no wonder that as lecturers, our practice and assessment strategies are under great scrutiny. I do wonder whether for new courses (like ours) however, there is a pattern of grade inflation in the first year or two of delivery. Many new courses have additional challenges in their first few years including building content from scratch, new staff members, new team etc. These factors are likely to influence the way in which staff teach and assess too, opting initially for less time-consuming methods. Perhaps a short preparatory period of pedagogical training before the initiation of teaching activities would be helpful to bring some of the challenges of teaching and assessing to light. An induction (in the form of workshops or work sessions) may also be helpful in making new staff aware of university policies regarding assessment and feedback early in their careers. Whilst online inductions are mandatory for all new staff – the volume of documentation and processes can make this a disorientating experience.

Producing fact-recollection and basic description questions is far easier and faster than designing those that truly challenge the intellectual capabilities of students.

Lecturers may fall into the comfort of designing less-meaningful assessment types due to other limitations (time, resources), but we should endeavour to challenge our students to promote a culture of critical thinking and creativity. Phil Race (2001) asserts that using a range of different assessment methods is beneficial and individuals are less likely to be disadvantaged. Next year, I plan to adopt additional methods for assessment, including poster design (appealing more to the creative souls) and short essay style questions.

Conversations with colleagues about assessment strategies are critical to designing a good course. I have found that students like to see some consistency across modules in this regard, so developing strategies at a department level is of high value and will further support individual module leaders in their justifications for the methodologies used. Whilst all assessments were moderated and approved, both internally and externally, our assessment strategy needs to be further developed and this is a work in progress – a discussion point in our recent course assessment board meeting.

John Hattie's (2012) insightful literature on feedback shows that feedback is essential for learning. Sadler (1989) describes feedback as an activity which fills the 'gap' – taking students from where they currently are to where they need to be. Keeping this in mind, it is clear to me that good feedback cannot be given without a clear description of the ILOs – which brings us back to the congruent relationship between the three components in constructive alignment. As I have learnt myself this past year, learning is a reflective activity – it is thorough reflection of our experiences that we are able to learn. I doubt many students have thought about learning in this way and wonder whether a reflective activity (such as Kolb's experiential cycle, Kolb, 1984) would benefit students. Throughout my lectures and tutorials, I have tried to incorporate assessment for learning (formative) into sessions to feedback informally. This has been done mainly as question and answer (Q&A) sessions, online quizzes and provision of practice questions. Earlier examples of Q&A activities showed cautious participation from very few new students, but as the year has gone on and we have become familiar with each other, the participation rate has been a little better. On most occasions, it has been the same handful of students who engage and speak. I have been using positive reinforcement (even for wrong answers) in sessions to try and boost participation and foster a 'safe-space'. But this method

alone hasn't been very effective in prompting more of the class to take part. Anonymous quizzes (Slido and Mentimeter) however, have had a 100% participation rate. Overall, this suggests to me that there are still many reservations students have about speaking in front of the class. Other methods that I would like to try next year include group-based dialogue, whereby a small group assigns a person to speak on behalf of the group, and assertive questioning techniques. Questions can be discussed in the smaller group and a consensus reached, before recombining with the larger class.

For summative assessments, I used modelling to feedback to my students by providing a model answer and encouraging students to compare and contrast with their own submissions. I realise now that this alone is not enough in providing feedback that students have confidence in. It is not personalised and can appear vague. I used Turnitin and Brightspace as platforms for marking and assessing – I am still learning about the functionalities of these. Turnitin can be a useful tool in aiding teachers to spot cases of plagiarism and collusion, however I found that the Turnitin similarity scores were artificially elevated in cases where students had copied and pasted the questions into their submission. Where students were working in groups to collate data, same data sets also contributed to this elevation. I have therefore been quite cautious whilst using Turnitin for the purpose of ruling out misconduct, but in the future will request that students do not copy and paste the questions in their answer booklet. Turnitin also has some useful feedback functions, whereby comments can be added to student scripts. This will be a useful tool moving forward. The challenge will be to feedback effectively with growing student numbers next year. I would like to mention here again the importance of assessment design, taking into account the ILOs and student cohort. For my lab-based assignments, which included a discussion element formed of short answer questions, I found that some students were writing paragraphs of irrelevant material. Within that, like a needle in a haystack, would be the sentence I was hunting for. These sorts of answers, to me, suggest the student doesn't have a true understanding of the topic and is therefore including as much as possible in the hope that the right answers will be in there. Next year, for short essay and even short answer questions I will introduce word limits to encourage students to think about what they are writing. The policy in my School states there should be a 10% window of flexibility where word

limits are set. Interestingly, this applies both above and below the set word limit. Setting marking criteria is another area of active development for me. This year, I found myself being overly focused on assessing facts and my 'immense' (as my colleague described) marking criteria is a reflection of that. I believe this was as a result of me trying to be as unbiased as possible. As I have learnt, an element of human error will always exist in marking.

Writing essay-style pieces of work is a relatively new activity for many new students. I have found great variation in the writing abilities of my cohort. Where I have felt that additional support could benefit, I have referred students to the academic skills tutors in my School.