Designing MCQs and SAQs for real-time online exams: Pedagogic Considerations

Real-time online exams are not invigilated and so are effectively 'open-book'. Their pedagogical function is different to that of traditional unseen, real-time exams because of the access students have to a range of primary and secondary material. Open book exams allow candidates to refer to class notes, textbooks, primary or secondary readings or access the internet. Accordingly, questions that solely assess knowledge recall or require reproduction of factual content are less likely to be suitable for real-time online exams. Real-time online exams are likely to consist of essay-style questions, problem solving or calculations SAQs or MCQs and SAQs enable the demonstration of acquired learning outcomes through testing acquisition and recall of facts. As with any open-book exam, there are potential challenges to academic integrity when using these as real-time online assessment activities due to an increased risk of collaboration or collusion with other students. To mitigate against this:

- Consider the **framing of the solutions**: The phrasing of the various options shouldn't easily direct students to the correct answer; shouldn't demonstrate grammatical inconsistency in the 'incorrect' answers; and should be consistent and comparable in length. All solutions should be plausible.
- Consider the **use of case study and/or best-fit style questions:** e.g. applying knowledge/concepts to a scenario and testing critical thinking rather than recall.
- Consider whether **questions should be constructed independently or rely on each other**: an incorrection solution for the first question of an SAQ/MCQ should not impact negatively on all other questions in the set.
- **Consider the use of adaptive release functions** in the VLE: students can only access an MCQ set for a certain length of time or following the completion of an earlier part of the exam).
- Consider '**rolling' blocks of MCQs, OSCE-style**: e.g. there are actually 3 or 4 MCQ 'sets' distributed. Set 1 students have a 5 mins window at 10.30 to begin their set with a 30 min assessment time, then set 2 students begin their own from 10.35, set 3 from 10.40 (overlapping stations: reduces likelihood of students sharing solutions).
- Consider **randomising the order** in which students access the MCQs: in an automated system might Blackboard be used to start student 1 and student 2 at different 'points' of the MCQ exam?).

- Consider **supplementing MCQs with occasional Part B requirements**, e.g. justify your selection of (c) – this could be a (very) short paragraph, a sketch, or evidence of student calculation. This works particularly well with 'best-fit' answers.
- Consider **requiring students to submit artefacts** (e.g. photos of their working-out) to demonstrate they've come up with the solutions themselves.
- MCQ solutions **should not be readily available via search engines** like Google: avoid textbook/verbatim phrasing.

This document is not a statement of formal university policy, but a teaching and learning resource written from a pedagogical perspective. It is not intended to be prescriptive.

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