Undergraduate Medical Education (UME) Program

Post-Exam Student Review of UME
Multiple Choice Examinations

Responsible Office(s):   Office of Assessment,
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This paper is concerned with the review that might take place after Multiple Choice Question (MCQ) examinations where students would examine and possibly discuss with faculty their individual examination papers. The present position at UME is described and issues identified. After a review of relevant literature appropriate recommendations are made below.

While the primary purpose of any assessment is to establish whether a student has met the learning objectives of the program it should also offer an opportunity for enhanced learning. To this end, UME has developed a practice of facilitating some form of review involving students and sometimes faculty after MCQ examinations. There is a view that this type of review would be enhanced if students were given sight of their own examination paper.

However, there are concerns that the review with students of their completed papers would be a real risk to the confidential integrity of the question bank. This bank is currently under development and can ill afford any section loss of questions at this time. There is added concern that the review sessions are a further drain of scarce staff resources.

A third problem is that the review sessions might raise false hopes in students regarding re-grading. A fourth issue is that in light of the examination gaming that can take place this type of review practice runs counter to our increased emphasis to students on learning and retaining the actual curriculum content material and not the specific examination questions. Finally, the implementation of longitudinal Progress Testing places much less focus upon specific and exact questions over content and competencies.

So far, as can be inferred from the literature search, the review of individual papers with students is somewhat unusual. A recent review of the literature was undertaken using the key words as: exam reviews, post-test, examinations, post-test review, student test scores, post-test feedback medical students, etc.

A significant finding was that there was no reported instance of students being allowed to review their individual MCQ papers. At a more general level, feedback on performance, as close to the examination as possible, has been demonstrated in relation to a number of forms of examination to enhance student satisfaction and learning.

A common theme in relation to MCQs is the form and timing of feedback and this is explored in experimental conditions by Butler et al (2007 and 2008). Several papers explore the use of computer aided feedback including Carnegie (2015), Epstein and Brosvic (2002 a and b) Epstein, et. al. (2001), Harrison et al (2013), Marden et al (2013). Larsen et al (2008) do consider how tests may be integrated into the program to enhance learning. Significantly though, only a small number of these articles are in specific Medical Education journals.

Clearly, students will receive some form of feedback after MCQ examinations and at the very least this will indicate whether they have passed or failed. Best practice is that they should receive this feedback as soon as possible preferably to a predetermined standard and we have certainly made great strides in this respect thanks to the efforts of the Assessment Office. The evidence is that this will contribute to student satisfaction although not necessarily learning.

It must be stressed that the primary function of assessment is to determine whether students have achieved the required learning objectives. Any use of the examination to enhance learning should be considered a bonus and carefully planned, implemented within available resources, and evaluated.

While there have been historical instances of planned, structured group take—up sessions for specific exams being offered (i.e. Phase 2 MCQ Review; Phase 3 CDM Review), there are no reported examples of allowing students to review their papers individually and the impression is that UME's consideration of this is somewhat unusual. In view of the risk to the integrity of the question bank, the difficulties in relation to resources, the previous gaming behaviors and the lack of evidence of its benefits:

1. **It is recommended that the review of individual student MCQ papers should not be implemented**.

It may be that knowledge of those questions and areas that posed problems to students could be of benefit to students in structuring their learning. There is some evidence that feedback of this kind might be beneficial. This could be achieved by a routine report to SAPC on each examination area and the area of knowledge it tested highlighting those which caused most difficulty. This report could be shared with students.

2. **It is recommended that routine reports on group performance in relation to individual questions and areas on MCQ examinations should be shared with the student group**.

If students are in difficulty, either not meeting the standard, borderline or on academic probation it would be at the discretion of the Theme Chair or Theme Content Lead should they wish to review former examination papers with the student to assist learning.

3. **It is recommended that appropriate Theme members can request from the Assessment Office specific examination papers for students in difficulty should they so wish.**

Several innovations regarding computer based feedback on individual and group performance are described in the literature.

4. **It is recommended that consideration should be given to providing computer-based individual and group feedback on performance in MCQ examinations. This should be aided with the implementation of Exam Soft.**

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Version History

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	16 March 2017	Draft circulated to Phase 3 for consideration of protocol expansion to be UME-wide. Edited to be applicable program-wide and no longer Phase 1 specific.
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