

School of Informatics: Moderation Process

This paper is intended as a discussion paper to be discussed at the November Teaching Committee to be modified and considered at the December teaching committee to be adopted as the implementation of Moderation in the School.

School of Informatics implements Taught Assessment Regulation 31 in the following way:

Examinations

Every examination has an examination setter and a scrutineer both of whom are familiar with the examination paper and the marking scheme. In the case of examinations we have two main roles:

- **Marker:** the marker applies the marking scheme to the examination scripts to derive a mark for each component of the examination.
- **Moderator:** the moderator inspects a sample of the marking produced by a marker and checks the marker is correctly interpreting the marking scheme.

The moderation process differs depending on who marks the examination scripts:

- **If the marker is the examination setter:** in this case the scrutineer will play the role of the moderator. The moderator will take a 10% sample of the examination scripts and will check that the marking scheme has been correctly applied to the sample scripts. The moderator will record the examination numbers of the inspected scripts and construct a list of queries on the marking they have checked.
- **If the marker is another single individual:** in this case the setter of the paper will act as moderator. The moderator will take a 10% sample of the examination scripts and will check that the marking scheme has been correctly applied to the sample scripts. The moderator will record the examination numbers of the inspected scripts and construct a list of queries on the marking they have checked.
- **If marking is done by a group of markers:** in this case the scrutineer of the paper will act as the moderator. The moderator will take a 10% sample of the examination scripts, ensuring that all markers are covered by this sample. The moderator will check that the marking scheme has been correctly applied to the sample scripts. The moderator will record the examination numbers of the inspected scripts and construct a list of queries on the marking they have checked.
 - Marking by a group of markers is only likely in the case of very large classes. The recommended practice for such examinations is the following. The marking should be split into two phases:
 - **Standardisation:** Here a small sample of papers 3-5 papers is marked by every marker using the marking scheme. This is followed by a discussion where differences of interpretation in the marking scheme are discussed and marks are agreed for the sample by the whole group of markers. The setter should participate in this marking since they have the intended interpretation of the

marking scheme. During the discussion the marking scheme may be changed or augmented with clarifications arising from the discussion.

- **Marking:** The markers mark the scripts following the modified marking scheme. These are sampled and checked by the moderator as specified above.
- **If the marking is done by machine (e.g. some form of automarker):**
 - There must be a clear explanation of the operation of the automarker (e.g. the tests that will be applied and how these relate to the learning outcomes).
 - The setter will be the marker in this case and may interpret the output of the automarker according to a marking scheme.
 - The scrutineer should be the moderator in this case. The moderator will check a 10% sample of the scripts checking that the behaviour of the automarker matches the expected behaviour and the marking scheme has been followed. The moderator will record the examination numbers (or other identifier) of the inspected scripts and construct a list of queries on the marking they have checked.

If the moderator has a non-empty list of queries these will be discussed with the setter of the paper. Each query will be resolved. There are two possibilities for setter and moderator to agree:

- The query is established as an anomaly associated only with a single script. In this case the anomaly will be resolved for that script.
- The query is established as a systematic anomaly that affects all answers to that part of the question. In this case, the marks for all scripts will be adjusted to take account of the anomaly (this could require remarking of a component of all scripts or an adjustment up or down to all marks awarded for that component).

If no agreement can be reached between moderator and setter, the Chair of Board of Examiners can appoint an additional experienced member of academic staff as a second moderator whose decisions are final.

Coursework

Coursework will only be moderated if it contributes more than 20% of the final grade for the course.

- Projects and dissertation in courses of 40 credits or above will be double marked using our existing scheme.
- For coursework contributing more than 20% and less than 50% of the final grade of the course. A moderator will be appointed and will follow the procedure above for examinations to check a 10% sample of courseworks.
 - If the checking process identifies a systematic anomaly the setter and moderator will meet and discuss anomalies. The outcome of this can be:
 - No action.
 - A decision to increase or decrease marks systematically for a particular component of the coursework.
 - If no agreement can be reached between the moderator and the setter the Chair of Board of Examiners can appoint an additional experienced member of academic staff as a second moderator whose decisions are final.

- For coursework accounting for more than 50% of the final grade of the course the coursework will have a scrutineer appointed and will be sent to the external examiners for checking (this is current policy). In this case the process for courseworks contributing 20-50% of the final grade will be followed with the scrutineer taking the moderator role.

Extract from College Learning and Teaching Committee Minutes

2.4 Moderation Practices – Good Practice Discussion

The Dean of Education Quality Assurance and Culture and Convenor of the CQAC presented a paper that reported the changes in the moderation of marks since academic year 2017/18, whereby all assessments were now required to be moderated and Boards of Examiners were now responsible for the determination and review of methods of moderation.

It was noted by the Committee that the paper (*CQACLTC-1819-2 Moderation Practises in the College of Science and Engineering*) also included recommendations on minimum levels of moderation required by type of assessment, weightings, sample volumes, assigned staff responsibility, methods of marking, a sample moderation form and recent examples of individual School practises.

The Committee noted the following points;

- There continued to be wide diversity in practise across the Schools
- Non-honours courses must continue to be moderated as they were used in Study Abroad selection processes
- Moderation of single components worth more than 20% of the mark was required
- A minimum of 10% of scripts required moderation.

The Dean of Education, Quality Assurance (QA) and Culture requested that the Directors' of Learning and Teaching and QA detail, in brief, individual moderation practice within the Schools which were then to be submitted to the Dean QA email account; deanqa@ed.ac.uk in time for the next meeting of the CQAC. It was noted by the Committee that this submission would include details of good practice, examples of mark 'scaling' at Boards of Examiners and examples of common practice.

Secretary's Note: In order to allow enough time for Schools to both compile examples and for due consideration prior to the CQAC, we would appreciate it if responses could be sent to the deanqa@ed.ac.uk account by 11th March 2019.

Extract from the Taught Assessment Regulations

Regulation 31 Moderation and standard-setting

The marking of all components of assessment must be subject to moderation in a way that is appropriate to the discipline, the nature of the assessment, and the credit weighting of the component of assessment. Boards of Examiners can apply standard-setting processes to the marks of assessments, provided that the choice of standard-setting methodology is defensible.

Application of the regulation

31.1 Moderation occurs before External Examiners review the operation of the marking and internal moderation process. Forms of moderation include sampled second marking, double-marking, and checking the operation of

computer-based assessment. Any single item of assessment which is equivalent to 40 credits or more must be double marked.

31.2 Moderation may result in recommended mark or grade adjustments and associated changes to feedback. No changes can be made to marking without the original marker's knowledge. Where possible, any changes should take place in discussion with the original marker.

31.3 Records of the operation of the occurrence and the outcome of the moderation processes must be kept. Records must show the rationale for decisions taken, including any decision that marks or grades should not be altered.

31.4 Boards of Examiners are responsible for determining the form of moderation for each component of assessment, and for ensuring the appropriate operation of moderation processes. Course Organisers are responsible for the organisation and supervising of the marking and moderation processes for their courses' assessments.

31.5 Boards of Examiners are responsible for reviewing marking and moderation arrangements, and the outcomes of students' assessments, across related courses (for example, Honours level courses in a subject area) in order to ensure that assessment criteria have been applied consistently.

31.6 Standard-setting is the process whereby decisions are made about boundaries or 'cut-points' between the marks or grades of candidates. Any standard-setting process must aim to ensure that students' results reflect the learning outcomes they have achieved and that the assessment is fair. Standards can be relative or norm-referenced (taking account the performance of candidates), absolute (defining minimum levels of competence) or a compromise between these two approaches.

31.7 Schools need to state what practice each course uses for internal moderation, and (where relevant) the methods of standard-setting, in the Statement of Assessment (see Regulation 14).

31.8 Resources and publications are available from the Institute for Academic Development: www.ed.ac.uk/iad