

Summary of Postgraduate Taught External Examiner Reports 2017-18

This report provides a summary of the feedback from External Examiners appointed to postgraduate taught programmes in the Faculties of Engineering, Natural Sciences and Medicine, as well as the Imperial College Business School, the Centre for Languages, Culture and Communication and the Centre for Higher Education, Research and Scholarship.

These programmes cover a range of qualifications including Master of Research, Master of Science Master of Arts, Postgraduate Diploma, Postgraduate Certificate, Master of Business Administration, Master of Public Health and Master of Education.

Updates were made to the report template this year, and the following changes were incorporated:

- a) The sections have been re-ordered to provide a more logical flow throughout the template.
- b) New questions have been added with regards to course content undertaken away from the College at other HE institutions or our industrial partners.
- c) An "Overall Confidence" section with three statements has been added to the end of the report, and asks External Examiners to give definitive judgements about the programmes they examine. The new statements, which were derived from Chapter B7: External Examining of the previous Quality Assurance Agency Quality Code, are as follows:

The degree awarding body is maintaining the threshold academic standards set for its awards in accordance with the FHEQ and relevant Subject Benchmarks Statements.

The assessment process measures student achievement rigorously and fairly against the intended learning outcomes of the programme(s) and is conducted in line with the College's policies and regulations.

The academic standards and the achievements of students are comparable with those in other UK degree-awarding bodies of which you have experience.

At the time of distribution of this paper, 8 annual reports remain outstanding despite repeated reminders from the Quality Assurance Team to submit these documents. The departments are also asked to contact External Examiners to assist in chasing these reports.

Provision of Programme and Module Information

Overall 93% of External Examiners felt that they had received sufficient information about their respective programmes and modules in order to fulfil their role. Around 89% confirmed that they had received the programme handbooks and specifications, and module syllabus, and 90% received the assessment briefs and or marking criteria. Departments are reminded that this information should be supplied to External Examiners each year, and in good time to allow for review of the documents before commencing their duties.

15% of External Examiners felt that they would have benefited from receiving additional documentation. Some of the documentation suggested in these responses included standard items such as a brief overview of the programme, the programme handbook, assessment briefs and marking criteria, and copies of the examination papers. Departments should ensure that these are provided at the start of each year of their External Examiners' tenure, or alternatively confirm that no changes have been made from the previous year.

Examples of other items it would have been beneficial to receive included:

- Data on graduate employment prospects for recent cohorts.

- Previous External Examiner reports and departmental responses to these (for new examiners).
- Agendas for Exam Boards and a spreadsheet containing the students' provisional results (to be received in advance of the Exam Board rather than on the day).
- Brief summary report for each module, outlining how the module was delivered, nature of the student cohort, a summary of the performance of the class in each summative component along with a comparison to performance of previous cohorts, samples of markers' feedback, and an exploration of any issues arising over the previous year.
- Criteria for prize nominations.
- Historical examples of assessment at different levels (i.e. excellent, borderline and fail), as ratified by previous External Examiners. This would help maintain consistency of marking between External Examiners.
- Access to the teaching materials for the programme via Blackboard or other online platforms, for comparison against examination papers.
- Clear guidance on College policies such as mitigating circumstances, plagiarism and moderation, and placement learning preferably with any changes in procedures highlighted.
- A brief rationale as to the number of marks available for each question/exam to assist in ensuring consistency between exams and modules.
- Access to feedback from students in relation to their course, such as SOLE or PTES results.

Appointment and Induction Process

Thirty-six new External Examiners attended a College Induction session in 2017-18 academic year and most found the day useful. The case studies session by Professor Martyn Kingsbury was particularly praised.

A number of External Examiners were not able to attend due to the timing of their appointment. The QA team asks all departments to ensure their External Examiners are appointed by October of their first academic year of appointment, so they have sufficient advance notice to attend these sessions, which are held between November and February each year.

The QA team will be implementing some changes to our induction day programme from next year, based on feedback from those who attended. The morning session will be extended, and will include analysis of report writing in the morning, and a chance for external examiners to analyse their predecessor's reports.

The afternoons are usually left free for local induction by departments, although there has been considerable variation in the extent to which this took place. From next year, departments are asked to ensure that structured activities are organised for their examiners during the two hour afternoon slot, including:

- Brief tour of the facilities and introduction to key staff.
- Meeting with current students.
- Brief outline of current curriculum, planned changes and historical trends.
- Meeting with members of key staff, including:
 - DPS (for PG appointments) or DUGS (for UG appointments)
 - Examinations Administrator
 - Course Lead
 - Assessment Lead
 - Exam Board Chair

- Discussion of last year's reports and any issues arising.

Departments are also reminded that a list of items which should be provided to new External Examiners is available on the [QA website](#). It is advised that External Examiners be advised if any changes were made to these items at the beginning of each academic year, and if so, that the updated documentation is sent to them.

Programme and Curriculum Design

The majority of External Examiners felt their programmes had the correct balance and content to meet the stated learning outcomes. Generally the range of options available to students and the mixture of learning methods used was praised. External Examiners felt the knowledge and skills developed at Imperial would help to equip students for their future careers. There were a few instances where suggestions for additional topics and modules were recommended. Where relevant, the design of the programme was appropriate for meeting relevant subject benchmarks/ Professional Statutory Regulatory Body (PSRB) or Accrediting Body requirements.

Where a programme includes a module which is delivered using a compulsory or optional placement activity (these might include a project module, a consultancy project, a stand-alone work/industrial placement), such placement activity was felt to provide a positive experience which allowed students to practice real world application of their skills and knowledge. Some External Examiners whose programmes did not currently include placement opportunities noted it could be beneficial for their students to consider implementing these.

However there were a few concerns about the standards of supervision provided by some non-Imperial supervisors during placement activity, and it was suggested that students on placement also be provided with a "home" supervisor as well, in order to ensure robust support for these students. This suggests that some departments are not following the College's Placement Learning Good Practice, which expects a Placement Manager to be in place who would also act as Placement Tutor if one is not appointed separately.

In some cases, students are unable to deliver a public poster presentation at the end of their placements as the employers are able to require these are conducted in private. External Examiners felt the lack of opportunity to publicly present could be detrimental to these students, particularly in comparison to peers in their cohort who did have this opportunity. As such it is important that these requirements are clearly articulated prior to the commencement of the placement.

It was also noted that some fieldwork trips could be better scheduled, as in some cases students did not get any break in between completing fieldwork and returning to a full week of teaching.

Assessment Strategy

The majority of External Examiners agreed that the methods of assessment were appropriate in relation to the learning outcomes for the programme, and were balanced between modules across the programmes as a whole. Programmes were generally praised where they had employed a range of assessment methods (examination, presentation, viva, coursework, project, thesis and group work, etc.) and various question styles within examinations (MCQs, essay questions, etc.) which asked students to demonstrate different skills. The writing of a grant paper as an in-course assignment was praised as good practice.

There was concern about the use of MCQs where these formed most or all of a single examination paper, or overall assessment for the module/programme. In these cases departments were advised

to review whether this was appropriate, and to consider giving more weight to other styles of assessment in the final grading. Overuse of open book or unseen question style examinations was also flagged, though as can be seen in the good practice section, there is a careful balance to be maintained when using these questions as they are considered as a valid tool for assessment.

A number of External Examiners highlighted discrepancies in the type of assessment between modules. For examples, some modules could be mostly or solely assessed by examination, whilst others had a substantial coursework element. A balance of types of assessment was felt to be more beneficial for the students. Some also highlighted issues with the weighting between different elements, i.e. viva vs dissertation, and advised that the split be reviewed.

Many External Examiners found that the model answers did not sufficiently distinguish the difference between answers at Fail/Pass/Merit/Distinction boundaries, and these should be made clearer. There should also be more justification of marks awarded for completed scripts (see the section **Marking and Moderation of Scripts** below).

Whilst the inclusion of group work was felt to be extremely beneficial to students' learning in general, there were concerns that assessments based on group work could be unfair for students where there was an imbalance of achievement or effort between the members. It was recommended that an element of individual achievement should be included in the final mark for the project for each student to address any potential imbalance.

There were a few cases where all students on a module scored high or low marks, and departments were advised to review the level of difficulty posed by these examinations.

It was flagged that some modules were worth more ECTS credits than others. This posed an issue where students were able to select from a range of optional modules, and could end up with varying amounts of ECTS credits.

There were a few areas of policy where External Examiners felt they and the programme teams could have benefitted from further guidance. These include handling of plagiarism cases, preparation for viva voce examinations and poster presentations, and changes to the degree classification policies and the rationale behind these changes.

Drafting of Assessments

91% of External Examiners reported that they had received all necessary draft assessments, 92% believed the nature and level of the tasks or questions was appropriate, and 94% believed there were suitable arrangements in place to consider their comments. However this implies up to 10% of draft assessments were either set at an inappropriate level or not submitted to review by External Examiners. 20% of External Examiners who had submitted comments on their papers reported that feedback on their comments was not received.

Many External Examiners noted that whilst they had not received feedback, changes to exam papers etc. did generally seem to have taken place, although not in all cases. There were several instances where papers had been submitted to External Examiners for review at very short notice and they were not able to submit their feedback in time for consideration. A few External Examiners also flagged that the papers were not accompanied by suitable breakdown of marks or model answers in order for them to make a judgment as to their suitability overall for the module

Marking and Moderation of Scripts

Around 90% of postgraduate External Examiners received sufficient copies of scripts/other assessed work for scrutiny, and reported that there was evidence of moderation in the marking of these. However only 85% found the general standard and consistency of the marking to be appropriate, and only 73% felt the scripts were marked in a way that enabled those reviewing to see why a mark had been awarded. For comparison, 79% of undergraduate External Examiners agreed that the general standard and consistency of marking was always appropriate and 67% found that scripts were marked in such a way as to enable them to see the justification for marks given.

A number of External Examiners noted that although the work they reviewed had clearly been double marked, there was little or no written feedback on the scripts, just ticks/underlining and marks awarded. Markers should be encouraged to add greater feedback when marking, both to help students understand why they scored as they did and improve their performance in future, and to assist External Examiners in seeing why marks had been awarded. In some cases there was insufficient evidence of moderation between the two markers, in cases where marks were particularly low or divergent from each other. In these cases departments should review the marking rather than simply average the marks.

The comments regarding the commenting on scripts to provide feedback to students suggest that the External Examiners are not aware that feedback is not generally provided in this way, despite their expectations.

Some External Examiners also noted issues where scripts were received too late for them to undertake adequate review, or that they were not given provided with sufficient model answers and marking schemes to make a judgement.

Practical Examinations

For those programmes where practical examinations were implemented, 97% of External Examiners agreed satisfactory arrangements were made for these, and 94% that the general standard and consistency of marking was appropriate.

Oral Assessments (including Viva Voce Examinations)

95% of External Examiners agreed that there were satisfactory arrangements were made for the conduct of oral assessments such as poster presentation and viva voce examinations and 92% that assessment of such work was appropriate and consistent. In particular, 93% agreed that arrangements for viva voce examinations were suitable and that the purpose for conducting such examinations and the criteria for selecting candidates was clear.

Several External Examiners noted it would be helpful for marking schemes and copies of dissertations and abstracts to be received sufficiently in advance of the viva days to enable these to be reviewed.

As previously reported, there was concern that students pursuing placement activity, especially at industrial locations where their research was expected to remain confidential, may be disadvantaged in not having the same opportunity to publicly present their work as their peers.

A few External Examiners found the purpose and format of the viva had not been sufficiently conveyed to students in advance of the examinations.

Assessment Process, Marking and Moderation

External Examiners reported that the model answers could often have been more developed or the breakdown of marks made clearer.

A number of External Examiners identified issues with the range of marks used. A number of External Examiners considered that some internal markers were reluctant to use the full range of marks, and work of excellent standard would not be marked above 80%. On the other hand, some reported that programmes had a relatively high rate of merits and distinctions awarded, which could indicate that marking is too generous.

At the lower end of the scale, there was also concern that markers appeared to be reluctant to issue fail marks, and that work which had attracted one fail mark out of two should be checked to ensure it was of sufficient quality to merit awarding of the degree. For candidates on the borderline, a few External Examiners believed the criteria used to award an uplift at the Exam Board was not suitable and should be made more stringent.

With regards to second marking, several External Examiners highlighted an issue with the calibration of marks where there was a substantial discrepancy between the two markers. In some cases marks seemed to have been averaged without further review to ensure one grade was not substantially divergent to the criteria. As one External Examiner noted: "It is important that the final mark is not just "meeting in the middle", but delivered objectively and transparently."

Some External Examiners noted that the marks awarded by supervisors for theses etc. tended to be higher than those awarded by the second (independent) marker, and it was suggested that more weight could be given to the independent marker in the final award. It was also flagged that whilst all work may be double marked, this did not prevent cases where one pair of examiners could mark the same standard of work more severely than another pair, and that regular rotation of first and second markers could help to even out such discrepancies and highlight where marking may need to be adjusted.

There were concerns that different types of assessment could lead to unfair marks being awarded. For programmes which included an element of group work, there was a risk that high achieving students could find their grade lowered, or that poorly achieving students could be "carried" depending on the groups to which they were assigned. For programmes which included a research project, the strength of the supervision and mentorship received could be quite variable, and this could have an impact on the students' final grades for that module.

With regards to examinations, External Examiners were concerned that papers which offered varying marks for different questions, or which awarded the same marks for all questions where some elements substantially required more effort or where questions were broken down into separate parts, could be confusing for students in the time sensitive and pressured exam format, and added an unnecessary level of difficulty.

Several External Examiners had significant concerns that the criteria for awarding distinctions and merits required that all assessment on the programme must reach that level to qualify for that award. Therefore a high achieving student whose overall grade would have qualified for distinction could see their overall grade reduced to a merit or even a pass if they fell down in just one piece of assessment.

Finally, External Examiners advised that guidance on special and mitigating circumstances, and on handling plagiarism and other examination offences, could be made clearer. Changes to progression

criteria should also be clearly flagged to all involved with the programme at the start of the academic year.

Programme Content Delivered and Assessed by External Providers

95% of External Examiners believed it was clear in advance of the Exam Board if a student had undertaken a module at another institution of higher education either as a collaborative module or as a placement activity, and all believed procedures for incorporating marks obtained by students at another institution were clear and consistently applied. However some did believe more discussion of this content could have been undertaken as part of their Exam Board.

Whilst this report is to consider general themes arising from the reports and so no one particular programme has been identified, there were significant concerns raised in relation to the collaborative double master degree with the Royal College of Art (which incorporates two study placements abroad during a two year degree) around the consistency of administrative and academic/tutor support from both institutions and problems with curriculum delivery at one of the partners. The extent to which these concerns were expressed indicates a need to investigate the problems in more detail.

Exam Boards

99% of External Examiners had been invited to attend the Exam Boards. Almost all External Examiners who attended agreed that the meeting was conducted to their satisfaction, and they were satisfied with the recommendations made by the Board of Examiners.

Whilst External Examiners agreed that arrangements for degree classification were applied consistently, a substantial number voiced concerns that the arrangements themselves were not appropriate. Largely this was due to concerns that weighting between examinations on the course or the policy of basing merits and distinctions on the minimum of each component rather than the overall grade were unfair towards students. There were also a few cases where the grade boundaries were felt to be leading to a higher number of merits/distinctions than is appropriate.

On the whole, External Examiners agreed that the procedures governing mitigating circumstances, academic misconduct and borderline performances were fairly and equitably applied to all candidates, and a number commented on the professionalism and care taken when considering cases of mitigating circumstances.

Some External Examiners noted that guidance around mitigating circumstances and academic misconduct could be made clearer. It was proposed that a member of staff familiar with these procedures should be in attendance at exam boards to answer questions. In particular, departments are reminded that External Examiners should not be asked to decide the outcome of borderline candidates, only to ratify the decisions made by the appropriate panel members.

Academic Standards and Student Achievement

All External Examiners agreed that standards set for the awards were appropriate in relation to the Framework for Higher Education Qualifications, national subject benchmarks and any additional Professional, Statutory and Regulatory Body (PSRB) or accrediting body requirements, where these were relevant and of which they had sufficient knowledge to comment.

External Examiners also agreed that the standards of student performance were comparable with those achieved by students on similar programmes of which they had experience, and in many cases found the Imperial College students were particularly high achieving.

The vast majority found academic standards and student performance were consistent across programmes, with the exception of a few modules which have been flagged to the respective departments for review.

For those who were not in their first year of tenure, External Examiners agreed standards were comparable with previous cohorts and whilst there were fluctuations in performance, these were not unduly significant.

Overall Confidence in Imperial's Programmes

100% of external examiners responded with **Yes/Always** to the statement *"The degree awarding body is maintaining the threshold academic standards set for its awards in accordance with the FHEQ and relevant Subject Benchmarks"*

97% of External Examiners responded with **Yes/Always** to the statement *"The assessment process measures student achievement rigorously and fairly against the intended learning outcomes of the programme(s) and is conducted in line with the College's policies and regulations"*

98% of External Examiners responded with **Yes/Always** to the statement *"The academic standards and the achievements of students are comparable with those in other UK degree-awarding bodies of which you have experience"*

External Examiners who answered Most/Mainly to any of these statements noted that they could not give full confidence as marking was felt to be too lenient or too harsh on their programmes, or because they had not received sufficient guidance such as marking criteria, etc. to allow a fully informed judgement on the second statement.

Examples of Good and/or Innovative Practice in Learning, Teaching and Assessment

External Examiners praised a number of programmes which examined students by a mixture of assessment styles, i.e. vivas, examination, poster presentation and coursework. In particular, the use of viva voce and inclusion of open book examination questions were highlighted as helping to develop the students' skills.

Almost all External Examiners noted the care and professionalism with which the Exam Boards were conducted, and in particular how cases of mitigating circumstances were handled by the programme teams.

Specific departmental examples of good practice include:

- Writing a grant paper as an in-course assignment helps students to develop a key skill for their future careers. (MRes Biomedical Research)
- Some excellent placement activity offered by industry partners at ZSL, Kew and Durrell (MSc Conservation Science) and at Purbright Institute and NIBSC. (MSc Molecular Biology and Pathology of Viruses)
- Range of cutting edge research projects available for students to join. (MRes Biomedical Research)
- Marketing Plan Competition at the end of the academic year. (MSc Strategic Marketing)
- Some excellent field trips, including to the solar-thermal power generation site in Spain. (MRes Green Chemistry), the trip to industry at GSK, (MRes in Drug Discovery & Development), the field research in tropical environments, including in Borneo, the

Caribbean, and Brazil, (MRes Tropical Forest Ecology), and the field trip to Oman. (MSc Petroleum Engineering)

- Green Solvents course as an excellent example of interactive learning. (MRes Green Chemistry)
- The “with business management” option which offers engineers complimentary skills that will be important in their professional careers. (MSc programmes in Civil Engineering)
- High number of industry-based and other external guest lecturers brought in to deliver teaching. (MSc Conservation Science and MSc Environmental Technology)
- The conference visit which gave the students an opportunity to reflect on the quality of international level research. (MRes Bioimaging Sciences)
- Allowing students the option to gain experience in non-Imperial research labs by way of placement activity and broaden their portfolios. (MSc Human Molecular Genetics)
- The Capstone Project and Work Placement modules which allow students to apply their learning to real-life environments, and solve real-life problems. (MSc Business Analytics)
- The wide combination of assessment types: essay exams, data interpretation exam, posters, mini-projects, oral presentations, research proposal, and research project performance and report used to assess students. (MSc Ecology, Evolution and Conservation)
- New electronic system for exam moderation. (MSc Statistics)
- Useful excel sheet containing markers comments. (MRes Biomedical Research)
- Compact primers. (MSc Business Analytics)
- Using academic/research staff as independent sitters for the exam questions, whose answers are compared with the model answers provided by the setters (MSc Advanced Mechanical Engineering)
- Problem-based learning in project management, where students get to tackle real life problems and present on these. (MSc Civil Engineering with Business Management)

Finally, a number of programme teams were singled out for praise by External Examiners, who had noted the hard work and dedication their Imperial colleagues had shown to their programmes and students over the years.

Recommendations and Suggestions for Enhancement

Overall the majority of External Examiners were satisfied with the programmes at Imperial, as evidenced by the very positive response to our Overall Confidence statements. However, there are some key areas of concern which the College should seek to rectify:

Action 1: Ensure early appointment of External Examiners (by October 2019 for the 2019-20 academic year), and implement more formalised local induction arrangements.

Action 2: Ensure that External Examiners receive all the documents in the *List of items which should be provided to new External Examiners* available on the [QA website](#). Documents should be provided each year of tenure, or examiners advised that no changes have been made.

Action 3: Review use of MCQ assessments and limit the extent to which these count towards the final grade.

Action 4: Ensure External Examiners are sent copies of all draft assessments, and that feedback is provided for any comments made.

Action 5: Ensure feedback and justification for marks is routinely provided on examination scripts, for the benefit of the External Examiners in checking these and the students in improving their future performance.

Action 6: Ensure robust calibration of markers, particularly where marks awarded are at the higher or lower end, and where there is significant divergence between the first and second markers.

Action 7: Ensure marking criteria and model answers clearly delineate how to differentiate between answers at borderlines (Fail/Pass/ Merit/Distinction)

Action 8: Review the policy for degree classification in relation to the requirement to meet the required level for merits and distinctions in most or all assessments, rather than overall.

Action 9: Review the use of different type of assessments and styles of examination question between modules.

Action 10: Review the ECTS allocations for modules to ensure that all students receive the same credits for completing the same amount of work.

Action 11: Explore ways of ensuring that marks awarded for group work are fair to all students.

Action 12: Explore ways of enhancing supervision and support for Imperial students on placements away from the College.

Action 13: Ensure Imperial College staff and students, as well as External Examiners, are aware of policies around mitigating circumstances, academic misconduct, conduct of examinations, awarding of degree classifications and consideration of borderline cases, and any recent changes to these policies, at the start of the academic year.

Action 14: Ensure opportunities for External Examiners to meet with students at some point during the academic year, and provide them with copies of feedback from students submitted via surveys etc.

Each External Examiner will be sent a copy of their report with comments by the department in response to their specific feedback on the programmes for which they examine. This College-wide summary report will also be provided to illustrate how their reports feed into quality assurance processes at both Departmental and College level, and to enable a wider view of themes and issues across the College. Departments should also give their examiners access to the departmental Annual Monitoring Report and accompanying action plan.

For 2018-19 reports, the QA team are planning to move to an online platform for reporting. This should enable better analysis of the data in the reports by the College, and should remove the issues around software compatibility which have arisen in the past with Word documents.