

External Examining: viewpoints for discussion

Vignette i. Projects

Project work, especially the individual project, receives a significant amount of attention from departments as well as external examiners. The final year individual project is usually the main focus of the assessment, but other projects that may have been undertaken during the degree and relevant group projects may also be present.

Projects originate from students, faculty and companies, they have different starting points and each is typically supervised by individual members of faculty. This leads to a fascinating array of projects at the end of an academic year, all of which are marked using a standard marking process. Whilst the obvious focus for the external examiner is the marking of the submitted thesis and, possibly, accompanying artefacts, consideration should also be given to the challenge of the project and how it has progressed; assessment may also include a presentation and inquiry into professional conduct.

The way in which the external examiner is exposed to the assessment of projects varies widely between departments. Some send out CDs of the project briefs or invite externals to interim or final presentations. Some departments provide samples of the project theses whilst others provide access to a room with the all project materials laid out in mark order. Whichever of these methods is used, the amount of student effort put into the projects poses a challenge for the external examiner.

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Taking a sample of project materials is my preferred way to efficiently gauge whether the content and standard of the projects is appropriate and comparable with other engineering departments. Content will vary enormously given the breadth of typical engineering departments and checks on consistency of standard is important between subject areas and markers. Opinions should be formed on whether those projects at boundaries such as pass/fail and distinction level are a fair reflection of the value presented in the project materials. Additionally, the spread of marks is worthy of attention. The use of a proforma for marking is invaluable for understanding the justification for the marks, but a poorly designed or ineffectively used proforma can lead to a lack of discrimination between the final marks. Finally, whilst an external examiner will instinctively use their own project processes as a benchmark, there are other documents that can offer indirect guidance on project expectations such as UK-SPEC and engineering benchmark statements.

Vignette supplied by a lecturer at Cranfield University.

An Engineering Subject Centre mini-project, led by Peter Theobald, is currently developing an assessment framework for the assessment of students' individual projects at the School of Engineering, University of Cardiff. It aims to explore the validity and reliability of the local individual project assessment process in order to make enhancements that will ensure that the mark provides a fair account of a student's performance. The design of the framework should be generic and thus readily transferable for implementation at other higher education institutions.

Vignette ii. Vivas

As an external examiner it is usual to be briefed to the hilt with documentation relating to the degree structure, module content, progression rules and quality assurance procedures of the university. While this provides a formal overview of the academic content and quality standards it is, in my opinion, useful to scratch beneath the surface by seeking feedback from the students about to graduate from the institution.

A viva will often take the form of a formal 15–30 minute interview or discussion between the external examiner and student about to graduate from the institution. While the viva is not adopted universally by universities it is not uncommon for an external examiner to undertake maybe four vivas in a visit in order to establish standards across a range of abilities. Unfortunately not all universities organise vivas as the time associated with the viva process presents problems and often external examiner visits and exam boards take place after the students have completed their formal study. However if it is possible to organise vivas, I believe that a great deal can be learnt from the process.

The list of objectives from the viva might include some of the following.

- *Does the student broadly match your expectations of a graduate with this degree classification?*
- *What has the student identified as the strengths of the degree programme?*
- *What has the student identified as the weaknesses of the degree programme?*
- *Has the student been encouraged to participate both academically and in other extra curricula activities that may have furthered their professional skills?*
- *Has the student been offered a graduate level job and is it in a field of engineering?*
- *Would the student choose engineering if they had their time again?*
- *Would the student recommend the institution for their programme of study?*
- *Would the student recommend the institution in general?*

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In any formal viva process it is prudent to be aware that individuals will normally be very supportive of their institution, however there are others who may bear a grudge and it may be necessary to make a judgement on their views.

Following a viva, external examiners are often asked to make an academic judgement upon the degree classification of an individual. In my opinion this is inappropriate as an exam board with three or more years experience of the individual is surely much better placed to judge a degree classification than an external person who has a few minutes to make the same decision.

In conclusion, a viva provides the opportunity to see beyond the formal administrative process and gather an impression of an institution from those that have experienced the learning process.

Vignette supplied by a lecturer at the University of Bath.

Vignette iii. A critical friend

The external examining process is an important part of the quality assurance system at our university. An experienced, senior academic from another university is appointed for a term of three years to oversee the assessment procedures of either one programme or a group of programmes to ensure that they are fair and that the standards achieved are comparable with other UK universities of similar standing.

The external examiner receives a briefing pack at the start of their term which includes the programme specification(s), module descriptions and other relevant materials. They then receive the examination papers for comment and are asked to respond to these comments before the examination papers are approved. The external examiner attends the examination board(s), views examination scripts and student coursework and project work to be assured of the standards the students achieve and that the processes are fair. This also provides an opportunity to meet some of the students for a general discussion and to feed back any issues the students raise to the board of examiners. It is important for the external examiner to be assured that the system for taking mitigations into account is transparent and fair. The external examiner confirms approval of the results by signing the examination mark sheets and the degree results sheet. They then submit a report to the vice chancellor which is responded to following consultation with the relevant head of department.

The process should therefore be viewed as constructive – towards the institution, its department and the programme and also to the staff and the graduating students – where the examiner's critique may be viewed as supportive and informative to each party.

Vignette supplied by a lecturer at the University of Birmingham.

Vignette iv. Presentations

As an external examiner, one of the tasks I have been asked to carry out in the School of Systems Engineering is the assessment of student presentations of projects.

Externals are present over two days, and the entire first afternoon and some of the following morning are given over to attending short presentations of around five to seven minutes from every single finalist. As the department's focus is very much towards applying learning, the vast majority of the projects have a substantial design and build element and thus the presentations include a demonstration of the students' efforts in the laboratory. Although the presentations do not count towards the degree assessment, the externals award commendations to deserving students and these are avidly sought after. The exam boards then take place that afternoon and the students all return in the late afternoon to collect their results and find out who received a commendation; naturally this is followed by photos and a party.

From the perspective of an external, it is an enjoyable and productive way of interacting with the department and its students. It enables the external to appreciate both the breadth of topics covered and the extent of the student learning experience. It is certainly a practise I would recommend where it is feasible.

Vignette supplied by a lecturer at the
University of Sheffield.

Vignette v. The engineering discipline

My appointment as external examiner stemmed from involvement in teaching and learning development through the Engineering Subject Centre. Mechanical Engineering is a very wide subject, encompassing such topics as mechanics, dynamics, thermodynamics, fluids, materials, analysis and modelling, design and management. Finding an external examiner who can cover the whole range of these subjects is a significant challenge. I would not claim to be an expert in all these areas, but I don't think that is really necessary to be an effective external.

The duties I perform fall into three main categories: approval of exam papers and model answers before the students sit exams, reviewing samples of marked scripts and projects to approve marks and attendance at the annual examiners' meeting. I don't consider my role as external is to check the technical detail of every exam, or to participate in the marking of exams or project reports. The most important task is to ensure that internal procedures are followed, and students are treated fairly according to those procedures.

On occasions an external examiner can fulfil an additional role in giving advice or a second opinion in difficult individual cases. Examples can include participation in viva voce examinations of borderline students, or discussion with departmental staff concerning students with special circumstances. I have found this to be very valuable in my own department, and have enjoyed participating in this way as an external myself.

Vignette supplied by a lecturer at the University of Strathclyde.

