

GUIDE FOR EXAMINERS OF ENGINEERING DOCTORATES (EngD)

1. Arrangements for the *viva voce* examination

A viva voce examination (viva) shall normally be held for an EngD candidate. The Internal Examiner is responsible for arranging the viva, and the examiners, should agree on a date in consultation with the candidate. Following submission, the candidate must inform their Supervisor and Internal Examiner of any dates when they will be unavailable to attend the viva, which should normally be held within four calendar months of the submission of the thesis. On occasion, it may not be possible to hold the viva within this period due to the availability of the Examiners or for other reasons.

Vivas will normally be held at the University of Reading campus where the student is based. In exceptional circumstances, the Dean of Postgraduate Research Studies may approve a viva taking place in another location or via Skype.

It is a requirement to hold a viva if the Examiners are minded to recommend that the degree for which the thesis has been submitted should not be awarded. The Dean of Postgraduate Research Studies has the power to waive this requirement in exceptional circumstances.

Supervisors

A supervisor may not serve as an Internal Examiner for their student. In circumstances where there is no other member of staff with appropriate specialist knowledge, provision will be made for the appointment of two External Examiners.

A candidate's supervisor may not attend the viva unless the External and Internal Examiners and the student unanimously agree that there are exceptional reasons why he or she may be present to observe. The candidate has the right to speak to the Examiners alone at the end of the exam. For all

students, the candidate's supervisor should be available for consultation by the Examiners at the time of the viva.

Independent Chairs

An Independent Chair for the viva is essential when the Examiners do not include an Internal Examiner (i.e. the candidate is being examined by two External Examiners or by an External Examiner and an Examiner who is no longer employed by the University).

The appointment of an Independent Chair for the viva will normally be considered in the following circumstances:

- a) Where the Internal Examiner is performing the role for the first time at the University of Reading;
- b) When the Head of School or the School Director of Postgraduate Studies requests a Chair to be appointed;
- c) Where the External Examiner, the Internal Examiner or, exceptionally, the Student, reasonably requests that a Chair be appointed;
- d) Where the viva will be conducted by video-conference, Skype or similar;*
- e) Where disability issues are present;
- f) Where the viva is a second examination of the thesis following a failure or an appeal.

*If the School is proposing that the viva be held by Skype or similar, then approval for this must be sought from the Dean of Postgraduate Research Studies prior to any arrangements being made and the Doctoral Examinations Officer must also be informed.

The appointment of an Independent Chair will be the responsibility of the Dean of Postgraduate Research Studies.

The roles and responsibilities of an Independent Chair

The Independent Chair is normally a senior member of staff from the same department (or sometimes a cognate department) as the candidate. They should have experience of the Reading system of viva voce examinations for research degrees. They should not have been involved in the supervision of the student.

Apart from making any introductory comments, the Chair will not normally play a role during the viva itself (i.e. whilst the student is being questioned) other than to oversee the proceedings as an impartial observer. He or she should only intervene if there are concerns about the nature of the questioning or the state of the student. The Chair should remain present for the duration of the viva, as well as the post-viva decision-making and relaying the outcome back to the student. During the decision-making stage, he or she may be called on to provide advice on the institution's regulations, but would not be involved in the decision on the outcome of the exam.

The primary responsibilities of an Independent Chair are to ensure that:

- The examiners are aware of, and adhere to, Reading's regulations and procedures;
- The examiners' pre- and post-viva reports are completed in line with regulations;
- The assessment is rigorous, fair, reliable and consistent;
- The examiners' questioning is appropriate;
- The candidate has an opportunity to defend the thesis.

The Internal Examiner will remain responsible for the administrative arrangements for the viva. In the exceptional circumstances when there is no Internal Examiner, the Independent Chair is responsible for liaising with the External Examiners and making the appropriate administrative and practical arrangements for the viva.

If the Internal Examiner or External Examiner or candidate wishes to request that an Independent Chair be appointed to oversee the examination procedures, he or she should contact the Doctoral Examinations Officer at the earliest opportunity, stating the reason for the request.

Contact with the candidate

The Internal Examiner must inform the candidate about progress with making arrangements for the viva no later than one month after receiving the thesis. This contact should be repeated at monthly intervals until a viva has been arranged (or, where no viva is to be held, the Examiners have communicated their decision to the Doctoral Examinations Officer). The same procedure should be adopted where a thesis is presented after minor or major amendments, or resubmitted after an initial failure.

The Examiners may decide that as well as a viva, they require the candidate to undergo a written or practical exam, or both.

2. Supervisor's statement

The candidate's supervisor will be asked to submit a statement to the Doctoral Examinations Officer reporting any circumstances which might be relevant to the Examiners' consideration of the thesis (for example, denial of access to source material) and to offer comment on the format and presentation of the thesis. This statement will be forwarded to the Examiners as soon as possible.

The Examiners should take account of the statement and may consult the supervisor(s) in any way they wish. The Examiners' decision and report remain entirely their responsibility. The thesis should be examined solely on the basis of the relevant academic criteria.

3. Preliminary reports prior to the viva

Each Examiner is asked to prepare independently, prior to the viva, a report which outlines his or her preliminary view of the thesis. The Examiners should exchange these reports and read them prior to the viva. The Internal Examiner is asked to attach copies of both pre-viva reports to the main Examiners' Report Form which is forwarded to the Doctoral Examinations Officer at the end of the viva.

4. Examiners' Report following the viva

After the viva, both Examiners must complete and sign the Examiners' Report Form and return the signed copy to the Doctoral Examinations Officer as soon as possible and within a maximum of 21 days of the viva.

Criteria for assessment

In examining the candidate's thesis and in submitting their Reports, Examiners are required to address the following points:

- I. The form in which the thesis is presented. (A candidate should submit the thesis in temporary binding for the examination. The full rules are available in the Rules for Submission of Theses).
- II. The work presented by the candidate is such as might reasonably be expected as the result of three years' full-time postgraduate work.
- III. Whether the abstract of the thesis is acceptable as it stands, or needs modification
- IV. The candidate understands how his or her special theme is related to a wider field of knowledge
- V. For an EngD the candidate must demonstrate each of the following:
 - a) the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, to extend the forefront of the discipline, and to merit publication in an appropriate form.
 - b) a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice.
 - c) the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and the ability to adjust the project design in the light of unforeseen problems?
 - d) a comprehensive understanding of techniques applicable to their own research or advanced scholarship.
 - e) an understanding of how research informs professional practice and knowledge.
- VI. Where a candidate has submitted for an EngD, but the Examiners are making a recommendation that an MPhil be awarded instead, the candidate must demonstrate each of the following:
 - a) a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice.
 - b) a comprehensive understanding of techniques applicable to their own research or advanced scholarship.
 - c) originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline.
 - d) conceptual understanding that enables the student to critically evaluate current research and advanced scholarship in the discipline.

- e) conceptual understanding that enables the student to critically evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.
 - f) an understanding of how research informs professional practice and knowledge.
- VII. On the final part of the form, Examiners are asked to write a joint written report of at least 100 words which should cover the following points:
- The quality of the content of the thesis and the extent to which it meets the specified criteria.
 - Where appropriate, the presentation / format of the thesis.
 - The candidate's performance during the viva.
 - Any recommendations relating to work that is particularly suitable for publication.
 - The nature of any corrections to be made (detailed comments about these can be provided subsequently).

The joint written report will be forwarded to the student, the Supervisor, the School Director of PGRS and the Dean of Postgraduate Research Studies by the Doctoral Examinations Officer. If Examiners wish to raise any issues relating to supervision or procedural matters, these should be submitted in a separate report or letter to the Doctoral Examinations Officer for the attention of the Dean of Postgraduate Research Studies.

Results

Examiners must indicate the overall result on the front page of the Report Form, choosing one of the following options:

- Award an EngD
- Award an EngD, subject to Minor Amendments
- Result Deferred - Major Amendments required
- EngD Fail result – recommendation to award an MPhil
- EngD Fail result – recommendation to award an MPhil, subject to minor amendments
- EngD Fail result – recommendation to award an PG Diploma

Award an EngD subject to minor amendments

The required amendments should be communicated directly to the candidate by the Examiners. The Doctoral Examinations Officer will email a letter to the candidate to provide formal notification of the outcome of the viva. The candidate should normally complete the amendments within four months of the date of the letter. The candidate should be asked to submit the revised thesis to the Internal examiner together with an ordered list of amendments made (with respective page numbers). The amendments should be checked by the Internal Examiner (normally within three weeks of receipt) and, if satisfactory, the Doctoral Examinations Officer should be informed by email that the degree should be awarded.

In exceptional circumstances (for example, if a student has to work full-time, or has difficult personal circumstances) the Examiners can make a request in their report (for approval by the Dean of Postgraduate Research Studies) that the student be permitted up to eight months to complete the minor amendment. Additionally, where a candidate has been diagnosed as having dyslexia or dyspraxia, he or she may request eight months in which to complete any minor amendments.

If the candidate does not complete and submit the minor amendments to the thesis within the period allowed, then a result of EngD Fail- recommendation to award a PG Diploma will be recorded. Extensions to the period allowed can be granted by the Dean of Postgraduate Research Studies if exceptional circumstances arise during the period.

Result deferred - Major Amendments required

The Report Form and list of amendments required by the Examiners, together with copies of the preliminary (pre-viva) reports should be sent to the Doctoral Examinations Officer as soon as possible and within 21 days of the viva. The Report Form and list of amendments will be forwarded to the candidate and copied to the supervisor(s) and the relevant PGR administrator. The recommended result will be deferred until the amended thesis has been received and re-examined.

The candidate will be required to make major amendments to the thesis within 12 months. If the candidate does not complete and submit the minor amendments to the thesis within the period allowed then a result of EngD Fail - recommendation to award a PG Diploma will be recorded. Extensions to the period allowed can be granted by the Dean of Postgraduate Research Studies in exceptional circumstances.

When a thesis has been re-submitted following major amendments, the Doctoral Examinations Officer will send the thesis to the External and Internal Examiners, both of whom are responsible for the examination of the amended thesis.

It is at the Examiners' discretion as to whether another viva is held. However, it is a requirement to hold a viva if the Examiners are minded to recommend that the degree for which the thesis has been submitted should not be awarded. The Dean of Postgraduate Research Studies has the power to waive this requirement in exceptional circumstances.

The re-submitted amended thesis should be examined within a normal maximum of three months of receipt by the Examiners (two months if no second viva is held). Both examiners must sign the Report Form. The results available to the Examiners will be:

- Award an EngD
- Award an EngD, subject to Minor Amendments
- EngD Fail result – recommendation to award an MPhil
- EngD Fail result – recommendation to award an MPhil, subject to minor amendments
- EngD Fail result – recommendation to award a PG Diploma

EngD Fail result: Recommendation to award an MPhil.

If the candidate has not met the criteria to be awarded an EngD, but has met the criteria for the degree of MPhil, the examiners can recommend to Senate that the candidate be offered the degree of MPhil (with or without minor corrections).

After a report making the alternative recommendation has been approved by Senate, the Doctoral Examinations Officer will write to the student notifying him / her of the result and offering the option of accepting the MPhil or re-submitting for an EngD (provided the thesis is not a re-submission).

The student will have four months from the date of that letter to accept the MPhil and, if minor corrections were required, to make the amendments and re-submit the thesis. If the candidate does not complete and submit any minor amendments required to the thesis within the period allowed, then a result of EngD Fail recommendation to award a PG Diploma will be recorded. Alternatively, the student can notify the Doctoral Examinations Officer within this four month period of his / her intention to re-submit for the EngD. He / she will be permitted to present themselves for re-examination on one further occasion within three calendar years. Candidates will be advised of the exact deadline by the Doctoral Examinations Officer.

EngD Fail result: recommendation to award a PG Diploma

If the candidate has not met the criteria to be awarded an EngD or an MPhil, the recommendation of award a PG Diploma, if the candidate has passed the 120 credit taught element of the programme,

The student will have four months from the date of that letter to accept a PG Diploma. Alternatively, the student can notify the Doctoral Examinations Officer within this four month period of his / her intention to re-submit for an EngD. He / she will be permitted to present themselves for re-examination on one further occasion within three calendar years. Candidates will be advised of the exact deadline by the Doctoral Examinations Officer.

5. Notifying the candidate and submitting the Examiners' Report

Examiners must submit the Examiners' Report Form to the Doctoral Examinations Officer as soon as possible and within a maximum of 21 days of the viva. The Doctoral Examinations Officer will notify the candidate of the Examiners' recommendation by email within 14 days of receiving the Report.

If the candidate is not informed of the outcome of the exam at the viva, the Internal Examiner is required within seven days of the viva to either inform the candidate of the proposed outcome or to indicate to the candidate the timeframe for communication of the outcome. In cases where the outcome is unlikely to be resolved within seven days of the viva, the Doctoral Examinations Officer must be informed. The Doctoral Examinations Officer will assume responsibility for informing the candidate of the progress in determining the outcome.

In the case of a candidate who has a tuition debt to the University (of £50 or more), the Doctoral Examinations Officer will notify the candidate that he or she will not be informed of the recommendation until the debt has been settled.

6. External Adjudicator

In the rare circumstances that the Examiners for a Research Degree have an irreconcilable difference of view in relation to the assessment of a candidate and are not able to agree on a result, the Senate will appoint an External Adjudicator who will consider the thesis and the Reports from the Internal and External Examiners, and will submit a report to the Senate providing a recommendation on the outcome of the Examination. The External Adjudicator may exceptionally hold a viva voce examination of the candidate if he or she considers that a viva is necessary to determine the recommendation.

7. Review of Results

Information on the procedures for a Review of Examination Results is given to each Examiner and candidate.

8. Advice

For further guidance or clarification of the examination rules and procedures, please contact the Doctoral Examinations Officer by emailing deo@reading.ac.uk.

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