A Guide for Viva Preparation
Introduction

This guide aims to explain the purpose of the viva examination; what to expect during your viva; and how to prepare effectively to ensure you communicate confidently during this oral examination. In writing this guide, we interviewed previous PhD students and experienced supervisors; their advice and tips are included.

Every research student will have a different approach to preparing for the viva examination and only you can know what works best for you. This guide contains suggestions you can consider as a part of your preparation.
1. What is the viva?

The viva voce, shortened to viva, is an oral examination where you are expected to ‘defend’ your thesis, and the quality of your research will be assessed. The viva will take place usually within 3 months of submitting your thesis; it is a required examination in order to achieve a postgraduate research degree. The University Code of Practice for Supervisors and Research Students sets out the requirements and expectations for thesis preparation and assessment and should be read alongside your Programme handbook. The extract below is taken from the Code of Practice and outlines what is being assessed when you submit your thesis for examination, and as a result what your examiners will be assessing during your viva.

- Is the thesis an original work that makes a significant contribution to knowledge in or understanding of the field of study?
- Does the thesis contain material worthy of publication?
- Does the thesis demonstrate adequate knowledge of the field of study and relevant literature?
- Does the thesis show the exercise of critical judgement with regard to both the student’s work and that of other scholars in the same general field?
- Is the presentation and style of the thesis satisfactory?

You will normally have two examiners who will review your thesis and will be responsible for assessing your work during your viva examination. There will be an Internal examiner, usually a member of University of Edinburgh staff, and an External examiner, who will be an expert from your research field.

The viva usually lasts between two hours to four hours, but can sometimes last up to six hours or longer. The length of your viva is not an indication of how well you have done; it reflects the amount of time taken to go through the thesis and how in-depth the examiners want to take the discussion.

What is its purpose?
People talk about the viva as ‘defending your thesis’ and it is in practice a defence of your research. In the viva, you will have the chance to elaborate on and discuss your thesis with your examiners, convincing the examiner that the work is original, that it is your own work, and that it makes a contribution to knowledge that it is worthy of the award of PhD. Although it is a formal oral examination, it is a critical discussion of your own work on which you are the expert so you should be confident in your ability to defend your thesis successfully.

The examiners will be looking for evidence that you have carried out the research yourself and have the ability to explain your rationale, methodology and findings. You should also be able to demonstrate your understanding of the significance of your work and its meaning in the wider context, such as its relation to the current research field. Remember that you are the one who carried out the research and conducted the critical analysis leading to preparation of your thesis. As such, you should be able to talk authoritatively about your own work and the contribution to your subject area.

https://www.ed.ac.uk/academic-services/policies-regulations/research-students
2. Preparing for your viva

Arrangements
After submitting your thesis, it is time to get prepared for your viva. You should establish the date and location as early as possible so you can have enough time to prepare for it, usually leaving around three weeks to two months prior to the examination. Your supervisor will usually be responsible for making these arrangements but it is your responsibility to ensure you know the details.

You should know the identity of your examiners; as stated earlier this will normally be one internal examiner and one external examiner. If your research topic is interdisciplinary, there may be more than two examiners. There may be other members of staff present during your viva but they will not be involved in assessing your work.

https://www.ed.ac.uk/academic-services/policies-regulations/research-students

Know your examiners
It is important that you familiarise yourself with your examiners research areas by reading some of their recent papers. This is particularly important if you are not already familiar with their work. Examiners research interests and their research approach, models, and methodology, may give you an insight into what questions they could ask you during the viva.

Taking a step back
It might be a good idea to take a few days away from all your work before starting to review your thesis again. This will often give you a new perspective, which might alert you to things that you have not noticed before. It is also a good idea to make a plan to split up the preparation into bite-sized chunks for the time you have available. For instance, you may want to aim to go through one section of your thesis per day as a good approach to split up the workload.

Focus on the details
Read through your thesis again in detail – this means not skimming through anything but taking time to read through word-by-word, highlighting the strengths and weaknesses along the way. Read it critically and consider if there are any sections that could have been explained better or are lacking in detail; you should note these down and consider how you would address concerns if questioned about these during the viva. If you are able to point out areas you think you did well or need to improve, this will show the examiners that you have made the effort to really think about and critically analyse your own research.

Think about the other ways you could have carried out your research and the impact that these would potentially have had on your research outcome. Could a different approach have yielded a different result? The most important thing is knowing what you did and why you did it. If you have used a specific methodology or technique, why did you choose that approach? What about other methods? Is there a more widely accepted approach to your research, why did you not use that instead? What questions still remain unanswered? These questions are common features of a viva examination.

The wider context
A viva examination will not only focus on your thesis, your examiners will also want to know whether you have developed your ideas from those from earlier academic studies, and how you would continue to develop your research ideas.
Therefore, you should anticipate questions that may challenge you to consider the future direction of your research and how you could continue to make a contribution to your field.

Your examiners will probably ask you questions on fundamental knowledge around the topic of your research, as well as your specialist area, so you will want to make sure you go over this in your preparation. In addition, they will also expect you to be able to discuss the impact of your research and its relation to other fields. So be sure not only are you aware of your research field but also its impact on wider context.

Use the University for Support

Speak to your supervisor
Your supervisors will most likely have been through a viva themselves, and will have examined theses, so make sure you speak to them as part of your preparation, in particular if there is anything you are unsure about. They should also give an insight of what to expect during the viva, what questions the examiners may ask and how to answer them. Your supervisor will often be familiar with the work of your examiners so will be able to highlight some of their research that may relate to your thesis (if you haven’t already referenced it in your thesis). This will help you to focus your preparation on understanding their research and approach which may indicate a possible direction for questions. Most importantly, your supervisors will provide you with additional feedback on your thesis; meaning they can help you to identify areas of strengths and weaknesses, which might be discussed in the oral examination.

Institute for Academic Development (IAD) workshops
The Institute for Academic Development (IAD) offers courses to help PhD students, such as guidance on writing your thesis and presentation skills. “Viva survivor” is a popular workshop that provides guidance to students on their preparation for viva examination. You can find further details below.

https://www.ed.ac.uk/institute-academic-development/postgraduate/doctoral/courses/course-list#proxy_Viva%20Survivor

Some schools offer their own training courses; ask your supervisors what resources are available in your school or department.

Practice

Mock viva
It is very important to practice explaining your thesis to others. One way of practicing is to arrange a mock viva with your supervisors. They will have a good idea of the potential questions that may come up during the viva and will often be experienced thesis examiners so will be very familiar with the format a viva can take. A mock viva can be a good opportunity to practice answering the questions and engaging in discussion rather than just preparing on paper.

Practise with others
You can also ask other colleagues (staff or PhD students) you may know or have worked with to read your thesis (or parts of it). If this is the first time they have read your thesis they could point out sections in your thesis that they find a bit confusing to read, or ask you questions that you haven’t anticipated. They might also point out small things or mistakes that you did not notice before, or could even provide you some feedback on your research more broadly. This will all provide you with information that can help you to prepare effectively for your viva.
Before the viva (wellbeing)

Try to relax the day before – stay positive
When there are just a few days left before your viva, you might feel anxious and stressed. This is normal but it is very important you rest well. Spend time with family and friends or do an activity you enjoy to help you to relax. Eating healthy food and trying to get a good night of sleep before the day of the viva will also help.

There are many “horror viva stories” out there but remember that these are usually not typical of the viva experience so try to avoid reading them as they won’t benefit you. Read things that are positive and motivating, remember that you have done your preparation, and hopefully that will give you a confidence boost!

Practical advice – route, clothing, things to bring
Give yourself plenty of time to travel to the venue, in particular if it’s a location or even a room that you are not familiar with. You will want to make sure you arrive with time to spare so you have time to compose yourself and gather your thoughts rather than rushing into your viva. These little things can actually be quite important and can help your performance during the viva.

When it comes to what you should wear, there is not a required dress code for the viva examination. However, you will still want to dress appropriately to leave a good impression and to put yourself in the right frame of mind. Just remember if your viva involves a presentation, you might want to look professional while you present. Make sure you wear something you feel comfortable in but that is smart.

Lastly, remember to bring a copy of your thesis along with some blank paper just in case if you need to write things down or draw diagrams to help you explain things during the discussion.

3. During the viva
What the examiners are looking for
The questions asked during the viva will be on the following aspects:

- What did you do?
- Why did you do it?
- What did you find?
- What is the significance of your findings?

The examiners will want to discuss the strengths and weaknesses of your research, as well as if you have identified any possible areas of improvement. The examiners are not trying to catch you out, they are there to help you recall any knowledge relevant to their area of questioning, or guide you to the answers they are looking for. Although they are not trying to trick you, it does not mean the questions will not be challenging; there are meant to assess if your research is of the necessary quality for award of the degree so you should expect to be challenged.

It is important to remember that different examiners will have different approaches when it comes to asking questions, this depends on their level of experience and their examination style. Sometimes examiners may appear intimidating or harsh, but it is important you do not take the criticisms personally and answer the questions calmly. If you come to a disagreement with your examiners, you should always try to explain why you disagree with them and try to be open minded to other opinions as well.
Remember that disagreement does not mean that an examiner thinks your research is not of the required standard, so continue to confidently engage in the discussion of your work.

The format of a viva exam as the format can differ from each student and each discipline. One of the things to keep in mind is, the viva is not aiming to assess how many questions you can answer correctly, it is about your approach to answering the questions and how you critically analyse your work, yourself as a researcher and how you can improve in the future.

**How to / not to answer the questions**

<table>
<thead>
<tr>
<th>To-do</th>
<th>Not to-do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take time to consider before you answer</td>
<td>Rush to answer without fully understanding what they are asking</td>
</tr>
<tr>
<td>Answer concisely but as fully as possible</td>
<td>Waffle / talking for too long – if you’re not sure if you’ve said enough stop and ask the examiners</td>
</tr>
<tr>
<td>Admit if you do not know the answer</td>
<td>Being defensive when criticized - the purpose of the examination is to critically assess your work</td>
</tr>
<tr>
<td>Be open to suggestions</td>
<td>Blame your data</td>
</tr>
<tr>
<td>Express your own opinions, but your tone should not be aggressive</td>
<td>Consider weaknesses as unimportant</td>
</tr>
</tbody>
</table>

4. **After the viva**

**Outcome**

You will be notified of the result very soon after the viva by your examiners. It is usual for them to have a discussion straight after your viva and to communicate the result to you immediately. Although there are a few possible outcomes, the most common are the following four categories:

<table>
<thead>
<tr>
<th>Results</th>
<th>What to do next?</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award of degree with no corrections needed</td>
<td>No further work is required</td>
<td>Happens very rarely</td>
</tr>
<tr>
<td>Award of degree with minor corrections</td>
<td>Minor corrections of the thesis within three months</td>
<td>Common</td>
</tr>
<tr>
<td>Award of degree with major corrections (no oral re-examination)</td>
<td>Major corrections of the thesis within six months but no additional viva necessary</td>
<td>Common</td>
</tr>
<tr>
<td>Resubmission of thesis required (oral re-examination required)</td>
<td>You may be required to rewrite large sections of the thesis, possibly requiring further research, within 12 months and to have a second viva</td>
<td>Happens rarely</td>
</tr>
</tbody>
</table>

For a full description of the possible outcomes of a viva (there are 10 possible outcomes) see the University Postgraduate Assessment Regulations for Research Degrees.

[https://www.ed.ac.uk/academic-services/policies-regulations/research-students](https://www.ed.ac.uk/academic-services/policies-regulations/research-students)
Next steps
It is important to remember that the viva is not the final step of the PhD (unless the examiners have recommended the award with no corrections). You must comply with the examiners recommendations before your PhD can be awarded. This could include making very minor changes to your thesis, a more substantial rewrite, additional research needed, and / or a possible second viva. It is very important that you understand what is required. If necessary you should clarify what is expected with the College or School Office and what, if any, support you can expect to meet the requirements.

Deadlines: You will have been given a deadline for making corrections and submitting your revised thesis. Make sure you confirm the deadlines with the College or School office as these are firm deadlines which you need to meet to gain your award even if you only have minor corrections to make before resubmitting your thesis.

If your examiners have asked for more extensive changes for you to make before you can be awarded your PhD you should consider the questions below.

- If you have been asked to collect more data / carry out more research, have you consulted with your supervisor to ensure there are resources to support you (e.g. lab space, access to equipment and materials)?
- Are there any financial implications? For example, will you need to pay any fees to complete additional research asked for? Will you be able to support yourself financially during that time period or are there any sources of funding available?
- Have you already planned to start (or have started) a new job? How will that impact on the time you have available to complete the conditions set by your examiners?
- If you are an international student, is there any impact on the status of your visa?
- If you have been asked to do additional research or make substantial changes to your thesis, are you happy to do this or would you like to discuss other options? For example, is it possible to submit a revised thesis for another award such as an MPhil?

Support: Your supervisor and sometimes your internal examiner will be able to support you to ensure you know what to do next to fulfil the requirements. In particular it is important to discuss with your supervisor how you can proceed with any more significant requirements and to clarify what help they are able to give you to do what has been requested.

We hope that any changes you have been asked to make by your examiners are minor and you can meet the requirements without difficulty. However, it is good to be aware of other, less common, outcomes so you understand what could be involved.

Summary
And that’s all. Good luck for the viva! Remember to be confident and proud of what you have achieved over the years of study, and most of all, try to enjoy it.

Useful links

A viva checklist (Vitae): https://www.vitae.ac.uk/doing-research/doing-a-doctorate/completing-your-doctorate/your-viva/viva-checklist
Overview of the viva (Vitae): https://www.vitae.ac.uk/doing-research/doing-a-doctorate/completing-your-doctorate/your-viva

Possible viva outcomes (Vitae): https://www.vitae.ac.uk/doing-research/doing-a-doctorate/completing-your-doctorate/your-viva/thesis-outcomes

Viva posts on the Thesis Whisperer blog: https://thesiswhisperer.com/tag/viva/

A personal viva story: https://www.vitae.ac.uk/doing-research/doing-a-doctorate/completing-your-doctorate/your-viva/i-had-my-doctoral-viva-and-i-enjoyed-it

Acknowledgements
Special thanks to the following PhD students and supervisors who have contributed to this guide; Dr. Catherine Hume, Dr. Amy Warnock, Dr. Anna-Maria Maciejuk, Dr. Catherine Bovill, Dr. Christopher Mowat, and Dr. Patrick Hadoke.

Appendix
Example Questions
General:

- Could you summarize your thesis in 5 minutes / a few sentences?
- Which part of thesis are you most proud of?
- What are the scientific mechanisms under this topic?
- How are you going to make sure this has an impact and how are you going to share it
- What are your next steps?

Methodology / Design:

- Why did you choose the method / model for this research?
- Why did you not use (something else) as the model?
- What other methodology have you considered before doing the research?
- What exactly is the technique you used measuring? Is this direct or indirect measurement?

Data / Results:

- How did you interpreted your data / results?
- How do you know if the results are not due to chance?
- Why did you choose to use this statistical test rather than others?
- Do you think your results have other implications other than the one stated in your thesis?
- How does the data you’ve collected relate to your analysis / discussion
- How did you interpret the data and is it rationale / coherent?