preparing for your viva

in the Sciences

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our topics for today

- Your viva - the basics, general framework
- How to prepare for your viva throughout your thesis journey
- Preparation questions
- Practice time!
- A look at other peoples’ viva experiences
- Tips on how to interact with your examiners
- Strategies for answering questions
your viva - the basics

- What is a viva?
  - (Possibly) the final stage of your PhD examination
  - A defence of your thesis
  - An oral (viva voce) examination

- Usually conducted at the University, with all actors turning up in person
- Remote vivas are possible but not the norm - must be approved by the exam board
- Non-public (in the UK)
your viva - the basics

Why have a viva?

What an examiner might say:

- To confirm that the thesis is actually YOUR work, and that you have knowledge of your subject area
- To find out if you are aware of and able to discuss related work
- To prove that you have developed the required skills to carry out research work independently
- To find out if you learned anything
- To see if you can talk about your research with other academics
- To discuss where your work “lives” in the research landscape
your viva - criteria for passing

Doctoral degrees are awarded to students who have demonstrated:

- **the creation and interpretation of new knowledge**, through *original research* or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication.

- a **systematic acquisition and understanding of a substantial body of knowledge** that is at the forefront of an academic discipline or area of professional practice.

- 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 to adjust the project design in the light of unforeseen problems.

- a detailed **understanding of applicable techniques for research** and advanced academic enquiry.

Contributing factors to failure

- Lack of knowledge about the thesis
- Lack of coherence throughout the chapters
- Lack of understanding of the theory
- Confused theoretical perspectives / methodological choices
- Lack of confidence in the work
- Poor literature review
- Wrong problem addressed
- Unoriginal work

Adapted from Murray (2009)
your viva - how to get the ball rolling

- Intention to submit
  - You must do this at least 2 months before submission.
  - Your thesis title goes on the form.
  - Download from this page: [http://www.sussex.ac.uk/rsao/forms](http://www.sussex.ac.uk/rsao/forms)
  - Complete the form (there is now also a part to be filled in by your supervisor).
  - Attach an abstract of your thesis - for guidance on this, see the section “Your thesis summary” on this page: [http://www.sussex.ac.uk/rsao/examination](http://www.sussex.ac.uk/rsao/examination)
  - Send both to the Research Student Administration Office (RSAO, Sussex House).
  - They will then start the process of appointing your examiners.
your viva - the framework

- Usually 2 examiners
  - Internal examiner:
    From this University  
    Will arrange a suitable date and time for your viva  
    Chairs the examination
  
  - External examiner:
    From another institution, not necessarily in the UK  
    Needs to be ‘research active’ with recent publications in the past 5 years
your viva - the framework

- **Appointment of examiners**
  - Your supervisor will submit examiner CV profiles and other information required.
  - Suggested examiners are then considered and approved by the exam board before they are formally appointed.
  - Once appointed, the RSAO office sends out the theses to the examiners.
  - Examiners are given 8 weeks to read the thesis and submit their individual reports.
  - The internal examiner will get in touch during this time to arrange a date and time for your viva.
your viva - the framework

- Viva date
  - Usually 3-4 months after thesis submission
  - If there are any dates where you will be unavailable, inform the Research Student Administration Office (RSAO).

- Viva length
  - 2-3 hours is common
  - No formal limit but student will be offered a break if the viva has been going >2 hours
Once you have submitted your thesis, you are considered “Under Research Exam”.

- From this point onward, it is not permitted for you to contact your examiners directly. All contact, if any, should be made via your supervisor or the RSA office.
- If you are not sure about what is acceptable, ask the RSA office for advice!

Your supervisor may attend your viva if you wish, or if invited by the examiners.

- You will have the final say on whether an invited supervisor can attend.
- If YOU want your supervisor to be present at your viva, let the RSAO know.
- If your supervisor does attend your viva, he/she may only speak and contribute to the discussion if addressed directly by the examiners. They cannot “jump in” and help you in any way during questioning.
Can I take my thesis with me to the viva?
- Yes! The viva is an “open book” exam.
- Bringing along a lightly annotated thesis will be fine.

What happens if I don’t turn up?
- You risk failing your degree.
- If you refuse to agree a time or do not attend the viva, the examiners will have the right to go ahead and conduct the examination without you.
- Examiners may make a recommendation to the Examination Board on the basis of the only evidence they have got - your thesis.
your viva - possible outcomes

A “pass”

- **Unconditional Pass**
  - Rare

- **Pass with minor corrections**
  - Up to 3 months extra time for corrections

- **Pass with corrections**
  - Up to 6 months extra time for corrections
your viva - possible outcomes

A “non-pass”

- **Major revisions and resubmission** for PhD
  - Not of doctoral standard but may be revised and resubmitted
  - Up to 12 months extra time allowed
- **Award of the MPhil**
  - Pass categories apply but not doctoral standard
- **Fail** without permission to resubmit
  - Normally, no thesis will be examined more than twice.
your viva - summary of the process

PRE - VIVA

- "Intention to submit"
- Thesis submission

ON THE DAY

- Examiners get appointed
- Examiners read your thesis
- Examiners exchange individual pre-viva reports
- Examiners meet to discuss their comments
- VIVA VOCE EXAM

POST - VIVA

- Examiners submit joint viva report
- Exam board
- Senate
- Official result (3-4 weeks after viva)
how to prepare for your viva

- Several stages / opportunities throughout your thesis journey
  - Over the course of your PhD project
  - Whilst writing
  - After submission
  - Week before
  - Day before
how to prepare for your viva

- Over the course of your PhD project
  - Present your work in front of your colleagues (e.g., work in progress seminars)
  - Participate in reading groups to learn how research is properly discussed and criticised
  - Reflect on any opinions, points of view, or criticism you receive from others
  - Get a paper accepted at a conference to practice presenting and defending your work
  - Create and maintain an up-to-date summary of your work
how to prepare for your viva

Exercise (5-10 min):

- Draft a one-minute summary of your thesis project!

- Think of this as an extended elevator pitch.

- If you do not know what to write, here a suggestion: Make a statement about the problem you have addressed; a few sentences about your approach to the problem; one/some of the results you found (as an example); and maybe a statement about the wider impact/importance of your work.
how to prepare for your viva

- Whilst writing
  - If you know who your examiners are going to be, keep this in mind when you write.
  - Reference their work where appropriate.
  - If your thesis substantially draws on any of their work, make sure
    - You know their stuff inside-out.
    - Your review of their relevant publications is sufficiently comprehensive, and well-written.
- In your thesis,
  - Refrain from adding noise (superfluous or badly written parts).
  - Avoid writing about matters that you do not really know anything about.
  - Avoid basic spelling errors.
how to prepare for your viva

- After submission
  - First of all - take some time off and recharge your batteries.
  - Familiarise yourself with the relevant exam guidelines (including those for examiners).
  - Talk about your viva with your supervisor:
    - How does your written thesis fit the criteria?
    - What should you focus on in your oral defence preparation?
  - Keep the topic alive in your mind.
  - Prepare short summaries of your chapters and your thesis.
  - Look up sample questions and prepare your personal question set.
viva preparation questions

SET 1

☐ Why is your subject important?
☐ What is original about your work?
☐ What are the limitations of your study?
☐ What are the pros and cons of the methods you used?
☐ What would you do differently if you were to start your project again today?
☐ What are the strongest elements of your research?
☐ What are the weakest parts of your thesis?
☐ What did you learn during your PhD?
viva preparation questions

SET 2

- Did your PhD go as you had expected?
- What is your thesis about?
- How did you develop an interest in your subject area?
- What prompted you to choose this PhD?
- Why have you organised your chapters the way you did?
- Where are you planning to publish your work?
- Where do you see your research going in the future?
- What original contribution to knowledge have you made?
viva preparation questions

SET 3
Name three key people in your field:

What are the two most important papers on the subject of ......................................................?

What is your opinion of the work by .................................................................?

Is there anything you would like to ask us?
preparation questions

Exercise (5 mins):

- Start crafting your personal set of preparation questions by
  - ticking those you think you can answer on SET 1 and 2, and
  - filling in the gaps in SET 3 with suitable examples that apply to your work.
how to prepare for your viva

One month before: Rebuild your “thesis” frame of mind:

- Re-read your thesis in time slices, as an examiner would do. Note any gaps you find, and think of ways to explain / make a transition during the viva. Mark the highlights of your thesis and practice talking about them. Mark the weak spots, too, and think of how you could “rescue” these in a discussion.

- Re-read the core papers referenced in your thesis. Make sure you know your way around the theoretical fundamentals underpinning your work.

- Recall the key people in your field - remember their names & most influential publications. Briefly revisit their work and re-read some of it, esp. that which examiners might use to probe your knowledge of the field.

- Knowing one or two very recent publications is a “nice-to-have” for the viva, but focus on recapitulating your thesis and the literature referenced in there

- Arrange a mock viva with your supervisor or your colleagues.
how to prepare for your viva

- One week to go: Practise talking, free your mind, and plan ahead.
  - Make sure you can deliver your summaries confidently and without stumbling.
  - Rehearse talking about the highlights of your work.
  - Practise oral debate with colleagues or friends.
  - Check out the room where you will have your viva. Use it for practising, if you like/can.
  - Try to free yourself from any commitments or duties in the week leading up to your viva. Ask your friends, flat mates, or family to help out, if possible.
  - Make fall-back plans in case anything goes wrong on your viva day. (transport, clothes, childcare, etc.)
how to prepare for your viva

- The day before
  - Relax, and eat well.
  - Double-check everything is prepared for the next day.
  - Spend time with positive, supportive people, if you like.
  - Get a good night’s sleep.
  - Make sure you leave lots of time for all the things you need to do in the morning.
how to prepare for your viva

On the day and during your viva
  - Don’t go in hungry.
  - Shut off any distractions.
  - Slow down your speech and speak carefully.
  - You have spent several years on this - talk about your work: positively, and enthusiastically.
  - Write down the gist of examiners’ questions (esp. when questions are long, or of composite nature).
  - You can also make notes before you answer, if you like (to structure complex answers).
common exam patterns

- Common formats
  - Presentation / Demonstration + Discussion
  - Discussion only

- Examination result
  - Announced before the viva
  - Announced after the viva

- Prepare for deviations from the standard pattern
  - E.g., interruptions during presentation, or your answering
viva question types

- At the beginning, there’s usually opening remarks and easy conversation / small talk to put the student at ease and build rapport.

  After that, questions will become more focused.

- Personal questions
  - Examiners may simply want to get to know you, but:
  - This may also be about finding out about your experience, training & education received, or any teaching you have done, ...

Adapted from Murray (2009)
viva question types

- General questions
  - Usually broad and open, inviting a general response
  - Also, asking for a summary can be considered a general question
  - They can be tricky, as the answer is not necessarily general as well
  - Try to tie answers back to your thesis (as an example)

- Specific questions
  - Usually closely related to your work, e.g. about statements you made in the literature review, or your methodological choices, chapter organisation, pros and cons of something, etc.
  - Require a specific answer

Adapted from Murray (2009)
viva question types

- **Open questions**
  - To elicit your opinion about something
  - To follow your reasoning process
  - To give you some freedom to talk about your research without constraints (a “free kick”)

- **Closed questions**
  - Simple, for testing your knowledge
  - Fixed answers, which you can get right or wrong

Adapted from Murray (2009)
viva question types

- Long questions
  - Not necessarily complex, just long - pay attention!
  - If a long question comes your way, start taking notes quickly. Often, the crucial bit of information is at the end of a lengthy statement.
  - It’s OK for you to ask for clarification if you’re not sure what the question actually was. (Focus! You would want to avoid having to ask too often)

- Combined questions
  - Usually long, but often complex, too (e.g., about various causes and effects)
  - Requires a composite, structured answer; and maybe even a short summary
  - Take the time to define the terms you will use in your answer, if necessary
  - Don’t rush, illustrate your points

Adapted from Murray (2009)
viva question types

► Probing questions
  ► To test your knowledge / the robustness of your thinking
  ► E.g., “Why?” / “Why not?” - like questions

► Obvious questions
  ► May appear very simple or superficial
  ► Don’t ridicule those questions, give a full answer
  ► Tip: If you get too many obvious questions, you may want to include in your answer a few hints to your highlights. This may then prompt more interesting questions.
viva question types

“Subjective” questions
- Examiner personality, interests, occupation, etc. will influence their behaviour in the viva
- The examiners may use their hobby horse to take you on a ride!
- There’s not always a definitive right or wrong answer - they may want you to apply your reasoning in the context of their specific field of interest, test your “thinking outside-the-box” ability, or simply elicit your opinion on some idea.

Follow-up questions
- To test your deep knowledge in an area
- To understand your reasoning
- Can be just honest curiosity on the examiner’s part

Adapted from Murray (2009)
mock viva exercise

Team work (30 minutes)

- Get in groups of three - 2 will take the roles of examiners and 1 will be the student.
- Students pass their personalised question set to the examiners. Keep your summary.
- Procedure:
  1. Examiner 1 greets the student and asks for a quick summary of the research. (1min summary)
  2. Examiner 1 asks a question from SET 1
  3. Examiner 2 asks a question from SET 2
  4. Examiner 1 asks a question from SET 3
  5. Examiner 2 asks a follow-up question from SET 3
  6. Repeat steps 2.-5. until 10 minutes have passed; then rotation of roles within the team.
other peoples’ viva experiences

“I was definitely asked a lot of specific technical questions and asked to describe quite basic concepts in detail - things that I learnt in undergrad but that still have relevance to my PhD, albeit in a much more complex way. I was asked what I enjoyed most and what I was most proud of, and was given chances to elaborate on parts of my thesis and experiments I performed in a more in-depth (and actually more informal) way. I was asked to give a summary of what I did as well at the beginning, but we launched into detail fairly quickly. I was also asked what I would have liked to have done but didn’t have time to do & what I thought would be a logical expansion/future work from the project.”

First question: what is your research about in general?
What is my favourite/most satisfying result?
Then more into specific topic/discipline:
Talk through a specific mechanism
Main steps of an experiment
Discussion on the model used
Explain the basics of a ____ theory
other peoples’ viva experiences

“Tell us about yourself, your past scientific work (in my case), education, work experience etc.
Briefly explain your findings and give us a summary of your work
Questions from the thesis: could you explain this .... on page ... etc.
Questions on the parts that could have been done to improve the work further such as:
You did this on page ... this way, could you tell if there are any ways, techniques etc to confirm your findings on page ....
Could you tell us, if you were to give your work to a new researcher to further carry on your work, what advice would you give to him/her? How would you tell her/him to improve the work.

I also suggest to look at the following website from Leicester university which I found really useful when I was preparing for my viva (The Viva Exam - What to Expect and How to Prepare):
http://www2.le.ac.uk/departments/gradschool/training/eresources/study-guides/viva”
other peoples’ viva experiences

“At the end of my viva, when all questions had been asked, I was allowed the opportunity to freely talk about my work, my opinions on my time as a doctoral student, how my research had progressed, how I could have improved it further and any reasons as to why any work was unfinished. I was also able to describe failed projects that had not made it into my thesis. I was able to explain the reason for trying these projects and why they failed.

When the viva was finished, I was asked to wait outside for 15 minutes while the examiners discussed my thesis and my answers. They came up with a number of specific weaknesses in the thesis that I should address in my corrections and explained them to me. All in all, it was a less terrifying few hours than I was expecting. Indeed, as the viva progressed, I gained confidence in my work and the answers I was providing and rather than feeling like an interrogation, it felt much more like a discussion.

The total time for my viva was approximately 5 hours, including a coffee break in the middle. This might seem like a long time, but it went by very quickly.”
other peoples’ viva experiences

“The best piece of advice I can give to current students is to be enthusiastic about your work. You need to show the examiners that it means something to you and that you have not spent the last few years just clocking in and out everyday. Make sure you know your background and how it applies to your work. Make sure you know WHY you have done an experiment, not just how you have done it. Don’t get stressed about knowing exact dates or names from your references. It is more important to understand the work others have done and why, rather than exactly who or when it was done.

Finally, I found it helpful to have a copy of my thesis printed and bound to bring with me. You can make notes in it and highlight any problem areas that you could be asked about. Finally, be prepared for the snake fight portion of your defence:

how to interact with your examiners

- Be friendly and professional.
- If you are nervous, take pauses in speaking to slow yourself down a bit.
- Take active part in the game of give and take of opinions and perspectives.
- Argue your points as best as you can but pick your battles wisely. Many of these you will have already fought in your literature review. However, always acknowledge refutations, even if you think they’ve got it all wrong.
- If they have a different (valid) opinion, or pick up on a mistake of yours, concede.
  - It is OK to acknowledge that you could do things differently - this demonstrates that you are able to reflect on and absorb the perspective of others.
  - It is also OK to admit mistakes - this demonstrates you are able to learn and also an understanding of what makes good research.
how to interact with your examiners

- Define terms
  - Definitions of terms as part of your answer can increase the clarity of your answers
  - Don’t be embarrassed if you occasionally recap the definition of a basic term - defining things demonstrates precision
  - Examples: “What I mean by X is…”, “I used Y to refer to ....”, etc.

- Be explicit
  - Don’t hesitate to say things that you think the examiners know already - this is part of demonstrating your knowledge.
  - You being explicit makes your work more transparent and helps the examiners to put together the various pieces.
how to interact with your examiners

- Give elaborate answers where appropriate
  - Choose carefully the level of specificity of what you say to make sure you actually answer the question.
  - However, don’t be afraid to talk about details. You might give a general answer first and then get more specific. The examiners will stop you if they heard enough.

- Highlight the strengths of your thesis when a good opportunity arises
  - There is a chance that examiners may NOT directly ask you about the strong parts of your thesis.
  - Don’t let these go unmentioned, use cue words like impact, benefit, strength, proof when talking about / hinting at your highlights.
  - Don’t over-do it, though - make reasonable claims about your work.
how to interact with your examiners

General answering strategies:

- When the examiners ask you a question, use your thesis as a starting point.
  - Which chapter has anything to do with the question?
  - Do I have a chapter that has the answer?
  - Summarise that chapter, explain why it’s relevant
  - Refer to specific pages when answering

- Make sure to employ proper vocabulary in your answers
  - Avoid statements that are overly informal
  - Use terminology that is common in research papers (aims, objectives, results, analysis, evaluation, discussion, etc.)

Adapted from Murray (2009)
how to interact with your examiners

- Talking about weaknesses
  - Concede (positively) and demonstrate that you learned something out of a mistake: “The things I could improve in my analysis are…” “What I would do different the next time is…”
  - Don’t try and hide anything. Explain how you think the weaknesses developed, and what your reasons were - sometimes, they are related to your aims, or risks you took earlier. Your reasoning may have been sound at the time when you made a particular decision.
  - If possible, show that despite some weakness, you still have achieved what you wanted.
  - Point out what future research arises from an identified weakness.
- Do not: Blame others, blame your data, or dismiss the weakness as unimportant or out of scope without good supporting argument.

Adapted from Murray (2009)
how to interact with your examiners

Specific answering strategies:

- **Define and Illustrate**
  - Avoid the use of Yes/No answers (unless you are asked for a simple answer)
  - After you have defined your terms, illustrate your point/reasoning with examples
  - Even if your examiners don’t agree with something you said, illustrating your argument shows them your reasoning and may convince them of the general idea
how to interact with your examiners

Specific answering strategies:

- **Define and Defend**
  - Your thesis defense super-weapon
  - Changes the tone of the interaction
  - Use to avoid overly defensive answers
  - The trick is to not respond to open criticism directly. Give a more elaborate answer by defining your terms and saying what you did; and then explaining why you did so.

Adapted from Murray (2009)
how to interact with your examiners

Specific answering strategies:

- Define and Defend

Example:

E (probing): Why did you not consider XYZ in your analysis of...?
S (defending): I did not consider XYZ because I thought...

S (define-defending):
What I did was.... My reasons for doing that were...
I could have included XYZ in the analysis but that would have meant...
Therefore, I decided not to include XYZ.
final advice

- Re-read your thesis properly
  - Know your way around the chapters
  - Locate where the main arguments were made (you’ll likely know this by heart anyway)

- Create summaries and practise presenting these
  - Quick summaries for all your chapters
  - Up-to-date 1 minute summary of the entire project and your work
  - A more detailed 10-minute presentation that ties everything together
final advice (2)

- If you can, have a mock viva or practise viva questions with colleagues / friends

- There are many sample questions on the Web - use them for practice but adapt them to fit your own thesis

- Be prepared to think on your feet.

- No-one expects your thesis to be perfect, and your examiners will want you to pass

- On the day, keep in mind: YOU are the expert in the room!
further information - university

- University Handbook for Doctoral Researchers

- University Guidelines for Examiners
  http://www.sussex.ac.uk/rsao/examiners

- University Guidelines for your Supervisor
  http://www.sussex.ac.uk/rsao/supervisors

- Other workshops offered by the doctoral school
  http://www.sussex.ac.uk/doctoralschool/internal/researcherdev/events/
further information - schools

School handbooks for research students and other useful links

- Engineering and Informatics
  http://www.sussex.ac.uk/ei/internal/forstudents/pgres/newstudents

- Life Sciences
  http://www.sussex.ac.uk/lifesci/internal/students/pgresearchstudents/pgrhandbook

- Mathematical & Physical Sciences
  http://www.sussex.ac.uk/mps/internal/researchstudents

- Brighton & Sussex Medical School
  https://studentcentral.brighton.ac.uk/

- School of Business, Management and Economics
  http://www.sussex.ac.uk/bmec/internal/forstudents/pgr
further information - external

- Rowena Murray (2009): “How to Survive Your Viva”, and other related work. Search the University Library Catalogue
- Preparing for your viva (Study Direct Module). [https://studydirect.sussex.ac.uk/course/view.php?id=17610&rel=home](https://studydirect.sussex.ac.uk/course/view.php?id=17610&rel=home)
- PORT Online Tutorial. [http://port.modernlanguages.sas.ac.uk/tutorials/viva](http://port.modernlanguages.sas.ac.uk/tutorials/viva)
questions

- If you have any further queries email me at r.r.grau@sussex.ac.uk

- Download these slides at http://www.sussex.ac.uk/profiles/171861/teaching

- Good luck for your viva!