



A guide to a successful viva

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This guide aims to give you guidance on how to prepare for your viva, some suggestions of what to do beforehand and on the day, and a few pointers to consider during the viva itself.

The important thing to remember whilst reading this guide is that everyone is different and you know what will work best for you. This guide will hopefully give you some useful suggestions that you can tailor to fit your way of working.

One key point to remember is 'don't panic'. Your examiners are there to help you pass; they don't want you to fail. Remain calm and try to concentrate on the enormous amount you have achieved so far.

What is a viva?

Think of your viva as the verbal equivalent of your written thesis. It is likely to last approximately two hours, depending on your subject and your examiners. This might seem like a long time but remember that you'll have several years' worth of research to discuss.

In most cases, you will have two examiners, one from within your university and one from an external organisation, as well as a chairman. If your research is cross-disciplinary, you could have more examiners in order for them to be able to discuss your research in its entirety. In some universities and circumstances, it may be possible for your supervisor to be present. If this is possible, it's worth considering carefully if this would be something you'd find helpful.

Why do I need to sit a viva?

Your viva's primary aim is for the examiners to confirm that your written thesis is your own work, but it also has a variety of other purposes. It will enable you to demonstrate your understanding of your subject and highlight your knowledge of where your project sits within the wider research field. It is likely that your examiners will initiate discussions by asking you to give an overview of your research and then use this to extend the discussion.

Your viva is your opportunity to talk about the aspects of research that went as planned and any unexpected results that occurred. Your examiners will have been chosen because they know about your research area, and can have an informed discussion with you about your findings.

Your viva is also a chance for you to discuss with your examiners ideas for future developments of your research and possible publications. It is important to appreciate that examiners often see this type of developmental activity as one of the most significant parts of the viva.

Preparing for your viva

Take a step back and relax

After submitting your thesis, it is important to take a couple of days to relax. You'll then be ready to think about reviewing your thesis and revising for your viva. While this might seem daunting, you've just spent a substantial amount of time working on your research, collating your results and explaining them. You just need to confirm the facts in your mind, and revise the key areas that you and your supervisor think are likely to come up based on your subject area and research focus.

There will be times when you've discussed your work with people working in your area or people outside the chemical sciences, such as friends and family. It is likely that you will have had the opportunity to present your research either as a poster or via an oral presentation. All of these experiences are excellent preparation for answering questions in your viva.

Think about what strategies you've used when successfully presenting your work, or what methods you've used to help manage your nerves. This will help to focus your mind on how you work best and how to move forward with your viva revision and the examination itself.

Speak to your supervisor

Your supervisor has been where you are now; they will remember what it was like preparing for their viva. It is also likely that they have acted as an examiner in vivas within your own university and externally. Use the knowledge they have gained from these experiences to help prepare for your viva. Discuss the key areas you will need to revise and any background knowledge they think it would be beneficial for you to review.

It is possible that your supervisor may know the research being carried out by your examiners. Talk about key papers to read and how the examiners' work links to yours.

You may also find it useful to discuss the type of questions you might be asked in your viva. Examples include the following.

- How would you take your research further?
- If you were starting your research now, what, if anything, would you do differently?
- Since you completed your research, how has your area developed?
- How does your research fit into these developments?

Try to come up with answers for these types of questions before your viva, so you aren't stuck for an answer if they do come up.

Revising your thesis

You need to know your thesis extremely well before your viva. It's easy to become nervous, but knowing your thesis inside out will help keep your nerves under control and enable you to be calm and confident when questioned.

Making basic notes about each page will help to refresh the information in your mind, as well as provide a useful crib sheet for revision a few days before your viva. You might also find it useful to colour code various items, for example mechanisms on pink post-it notes, key points linked to spectra on blue etc.

If you included chemical mechanisms and cycles within your thesis, it is crucial you have a detailed understanding of how you defined the mechanisms and that you can recreate your derivations if asked by the examiners. Similarly, if your work relates to a catalytic cycle, you need to be able to explain the various steps around the cycle and how your work fits into it.

Refresh your knowledge of year 2 undergraduate chemistry as well as complex mechanisms such as the Mitsunobu reaction. You want to avoid any situations where you've forgotten something fundamental such as the Wittig reaction or the pK_a of acetone.

It is likely that your examiners will initially ask you to give an overview of your thesis. Try to think about what the key points would be to include in a summary, and how to ensure the crucial elements are highlighted. Practice summarising your work to colleagues and ask for feedback.

You can take your thesis into your viva so there is no need to memorise it, but you will need to refer to key sections as necessary. It can be useful to highlight key pages by inserting post-it notes. This makes it easier to find the page you need without having to go through the whole book. If you have colour-coded key points during your revision, you may find it useful to continue this method when marking the pages.

Practice

Try to arrange a mock viva with your supervisor or colleagues prior to your final exam. This will give you an idea of the style of questions asked and how you might answer them. It is up to you whether you choose to have your mock viva in a formal or informal manner. Either way will enable you to put the answers you have thought through into words and give you confidence.

Sitting your viva – the day itself

Nerves

You are bound to be nervous about your viva, however try to remain calm. Your examiners want you to pass your viva almost as much as you do. Bear this in mind when answering their questions; if you're not sure of the answer, or would like them to rephrase the question, say so. You can also try writing something down and watching the examiners for hints and body language – there will almost always be some prompts to help keep you moving onwards.

The initial 5–10 minutes are important but are also when you are likely to be the most nervous. Make sure you are well prepared and have something ready when the examiners ask for an overview of your work. This will give you the chance to talk about something you're very familiar with and should help calm your nerves. The examiners will be aware of how nerve-wracking a viva is so will do their best to put you at ease.

Examiner comments

It is unlikely that you will be able to take notes throughout your viva; however, your examiners may give you a sheet of corrections or a notated copy of your thesis to take away. Try to make a mental note of the examiners' summing up of advice or requirements to identify, and clarify the exact work that is needed to finalise or resubmit the thesis. The exact format of finalising your viva will depend on your university; some issue the full formal response of required changes immediately, whilst others take longer. You should be able to find out this information from your postgraduate office or university website.

Your examiners' response

The full verbal response you receive on your viva day usually has a final status; however, this will be clarified and repeated in a written response afterwards. Universities have several categories of response following PhD assessment, and these usually range between the following.

- Award without any modifications
- Award with minor modifications
- Award with modifications, which could take up to 6 months
- Major modifications (also known as resubmission in some instances)
- Fail (usually with opportunities for resubmission)

Only a relatively small percentage of UK PhDs are awarded without any modifications to the thesis. Your examiners are experts in your field of research and are therefore likely to make amendments and corrections to your work. Given this, it is advisable to be prepared to complete some corrections to your thesis after your viva. Don't be disheartened by this though – try to think of your viva as a step in producing the best thesis you possibly can. Draw on your examiners' experience to improve your thesis and remember that they are there to help you just as much as assess your work.

Corrections

Check your corrections and work with your supervisor to develop a plan for what further work is required, whether it be tidying up, revision or additional work. It is important to get full final instructions and a clear sense of when the work is due. You also need to find out who will assess and ultimately agree your corrections. The sooner you agree a plan and can start on the work, the more you will feel that this is a developmental stage and that the end is in sight.

If you need to re-register with the library and renegotiate supervisions with your supervisory team, now is the time to do this as you agree the work plan and timings.

For more information about how to prepare for and be successful in your viva, the following publications go into greater depth.

- *How to Survive Your Viva: Defending a thesis in an oral examination* Rowena Murray, Open University Press ISBN 033521 2840
- *The Doctoral Examination Process: a handbook for students, examiners and supervisors* Penny Tinkler and Carolyn Jackson, Open University Press, ISBN 033521 3057

- *How to Get a PhD: a handbook for students and their supervisors*
Estelle M Phillips and Derek S Pugh, Open University Press, ISBN 033521 6846

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