RESEARCH POSTGRADS

Research postgraduate students face many similar study issues to taught postgraduates and undergraduates, for instance, managing your time, focusing your reading and research, and presenting your work in written, verbal and visual forms. Dealing with these issues at research postgraduate level means developing new strategies to respond to higher academic expectations, more independent study, managing original research, and other changes in personal and academic circumstances.

Although you will be guided by your supervisors, it is important to take ownership of your project, and take a leading role in its direction, as you are the one who will be justifying and explaining the decisions you have made. The ideas-generation and problem-solving processes involved in new research can be exciting, but also frustrating at times. It is natural to go through ups and downs throughout the PhD process, and no research ever goes entirely to plan. Therefore, it is important to seek advice and build a support network for yourself. Although research can seem like a solitary process, you don't have to do it all on your own. Talking about your research with others (including Study Advisers) is valuable, as is having time away from the lab or library to recharge.

The advice in this guide looks at many aspects of the PhD process from managing your time right through to your final viva, and how to keep going along the way.

Managing your workload

As a research postgraduate, you are engaging in higher level study and original research which requires more time for locating resources, planning, gathering data, communicating your findings…and thinking.

The good news is that, whether you have come from work or from a taught postgraduate course, to get to this level of study means you have most likely already developed some time management strategies that work for you – just an awareness of how you prefer to work and what times of day you do your best thinking can make a big difference.

The principles of managing your time as a research postgraduate are basically the same as those for taught postgraduates and undergraduates in terms of having a long-term plan with time blocked off for large steps, and then breaking this into short-term plans with specific tasks. However, most research postgraduates find they have to adapt some of their existing strategies to cope with longer projects and more unstructured research time.

The advice on this page suggests ways to deal with some of the things that make managing your time as a researcher more challenging.

Managing more unstructured time

PhDs and Masters by Research bring slightly different time management challenges, as the volume of work is far more unstructured. Research students feel pressurised by knowing they have a lot to accomplish, but not knowing exactly what to do next. Some tips for avoiding this are:

* Break down your project – Think about the next big stage you have to complete (e.g. data collection) and then the steps you need to get there (design questionnaire, pilot questions, identify sample…etc). Identify what you already know, and where you can find out the information you need to fill the gaps. (See project planning below for more details). PhD students will usually have a series of annual progress meetings to help give regular milestones; for more guidance on
how this process is managed at the University of Reading, see 'Keeping on Track: How We Monitor and Assess Your Progress', one of the Graduate School's Guides for Students (link in box at left).

* Set your own deadlines – You may have long term milestones like a confirmation of registration report, but it's the short term monthly or weekly deadlines which keep you going, and you'll have to set these yourself. The best way to stick to them is make them public – agree them with your supervisor, put them on a wall planner, or get a friend to nag you.

* Plan for the week / day ahead – Spend some time at the beginning of each week mapping out your tasks for that week. Each evening write down the specific tasks you need to do the following day so you are ready to get going straight away. This saves time deciding what to next and cuts out procrastination!

* Treat it like a job – Research projects tend to spread and consume all your life. Ring-fence time away from studying as this refreshes your mind and makes your thinking more effective. Treat your research like a 9 to 5 job – either working between these hours or doing a number of hours each day.

* Keep an ideas book – Most researchers get their best ideas away from the lab or library. Capture all the good thoughts you have in a notebook and make use of "dead time" when travelling or waiting to do some creative thinking and brainstorm.

* Not every day will be a good one – As with any job, you will have good and bad days. You won't always be able to tackle hard problems or do deep thinking. The trick is not to feel guilty, but have some more mundane work, like sorting your bibliography or organising your data, to do when you aren't on top form - these all contribute to your thesis.

Project management for your thesis

The key to managing any longer project, like a thesis or dissertation, is keeping an eye on the bigger picture, while also moving towards that ultimate goal step-by-step. This means combining both long term and short term planning:

Long term planning:

* Do long term planning from the start - Although you may not know exactly what your research question is yet, it is still important to do long term planning. It may feel quite vague and unformed to begin with, but it should become sharper as your research progresses.

* Identify the main stages in your research and some basic blocks of time for completing them, e.g. doing an extensive literature search; a pilot study; field work; data analysis; writing up. These will be different (and more specific) for each person.

* Ask your supervisor for some guidance on whether your long term plan is realistic.

* Keep your long term plan in mind – It is easy to get side-tracked by following up lines of inquiry or research interests. Regularly ask yourself, "How is what I am doing contributing to my overall research purpose?"

* Revise your long term plan – As you narrow down your question, you will need to return to your long term plan from time to time and continue to refine it.

Short term planning:

* Break it down – Divide the next stage of your research into a series of tasks that you need to do to complete it.

* Prioritise – Sort the tasks into those that need to be done now, soon, or later.

* Set your own short term deadlines and make them public so you are more likely to keep to them.

* Factor in time for conferences etc – Look ahead and block off some time for other commitments like papers, presentations, teaching etc. Preparing for conferences can take longer than you think.

* Keep a "done list" – "To-do lists" are great, but you may have long periods when it feels like you are making no progress. Instead keep a "done list" and remind yourself what you have achieved and what you have learned - no matter how small.
* What if deadlines whoosh past? – Missing a few targets is normal, as research can be unpredictable. However, if you regularly keep failing to meet your deadlines, look back at your long term plan and revise your goals to more realistic ones. It may be you are trying to do too much or have lost the focus of your research. Ask yourself how much time do I have left, and then what can I realistically do in that time?

* Link short term and long term plans – Ideally all your short term tasks should contribute towards your long term goals. Don't lose sight of your long term plan - set aside some regular time for bringing all your reading and findings together and thinking about your research questions – spider diagrams are good for this.

**Dealing with other challenges**

**Getting going:** Not being able to get started is often because you are not sure where you are going. Try listing some questions that seem relevant to your research topic (each one on a separate page) and then jot down possible answers or lines of inquiry. You will see what gaps you need to fill and it may trigger more precise or relevant questions to pursue. Start with the easiest chapter for you to write – for science or social science projects this may be the methodology, or for arts and humanities projects it may be the one you have most material on.

**Studying part time / combining work and study:** This is a difficult challenge, as research often needs longer blocks of time to generate ideas and think deeply. Try to organise it so you have some whole days a week on your research. Ring-fence your study time and explain to friends and family the importance of having undisturbed time. Have a place away from your home and family (e.g. a library) to give you space to work. Do some deals so that you spend time with your family, and in exchange they give you time for your research. If you can, book leave or have time off to give you uninterrupted weeks for some of the final writing up.

**Teaching and presenting at conferences:** You may be offered the opportunity to do some teaching (in your own university or another), or to present a paper or poster at a conference or seminar. Both of these activities can be highly productive as part of your PhD study: they give you an opportunity to get your ideas organised, or see where there are issues you still need to deal with. However, they can eat into your time, so getting a balance is essential. Try to be selective about what you say yes to, and avoid tasks that will entail you doing a lot of new work that you won't be able to use in your thesis or dissertation.

**Saying no:** It can be very hard to say no to your supervisor especially as many of the activities you are asked to do can benefit your career. However, you owe it to yourself to give yourself enough time to complete your thesis. Be diplomatic – suggest someone else who may be able to take on the task, or ask your supervisor what the priority is e.g. "This month I have a chapter to finish, a journal article to write and a department seminar to do. I think I realistically have time to do two of these; which would you say is my main priority?" (See our study guide on Managing your Time for more advice on making time for your studying)

**Procrastination:** Recognise your typical distractions (email, internet, phone, chores) and think of ways you can avoid them. It may seem like you have a long time to complete your research, but this goes past quickly. Try to get into a routine which works for you, starting at the same time or working in the same quiet space. If you know you need nagging, agree regular meetings with your supervisor or a fellow research student and use them to report on your progress.

**Unforeseen events:** Even the best planned research schedule can suffer unforeseen setbacks or difficulties, especially if you are doing experimental research. Build in time for contingencies, and be aware that data collection will probably take longer than you think. If you haven't got the results you expected or things have not worked, talk them through with your supervisor sooner rather than later. It may be that you have to cut back other parts of your research and revise your goals, or get an extension. Nothing you do is wasted, though, as it all contributes to your training and learning as a researcher.
Staying motivated: Sometimes a PhD feels more like a test of endurance than a measure of intelligence! Allowing yourself time off and regular rewards (e.g., seeing friends, a film, sporting activities) will help keep you going and keep your thinking fresh. Have a space at home which is free from your notes and study to be a sanctuary away from research. If you are stuck and bored with your project, talking through what interests you about it with a friend or supervisor is a good way of getting back your enthusiasm.

Feel good about your research: Doing a PhD means working on something you’ve chosen because you’re really interested in it. Don’t work in isolation – network with others who are interested, in your department and at conferences and seminars held at other universities. Keep reminding yourself why your project is worth doing, and what your ultimate goal is – to get that PhD.

Theses

Introduction

Researching and writing a PhD thesis is probably the most extensive and in-depth piece of academic work you will have attempted. It is an exciting opportunity to research a topic you have chosen and that you believe to be worth investigating. At the end of your research you will be the expert in your specialism.

However, working on a thesis can seem a daunting prospect with three years or more of work, often on your own and without any imposed structure to your time, and the prospect of writing perhaps 90,000 words at the end. Although this is very much your project, and you will be expected to make your own decisions (with advice from your supervisors) on how to proceed, you can build a support network of fellow researchers, experts, and interested friends to help encourage you, and who you can test ideas with.

As you progress from the start, to the middle, and finally to the end of your thesis, you will develop the ability to evaluate your own work more clearly and will (hopefully) rely more upon yourself and your own judgement, than that of your supervisors. The advice on this page offers suggestions for navigating the thesis writing process and for keeping going.

Getting started

Start writing now! – It is never too early. Your thinking only develops if you write your ideas down and see how they fit together. It is far easier to refine your ideas when you have something on paper, and what you write now will evolve into your chapters later. Start by writing a section or paragraph that interests you and build from there. At this stage it doesn’t matter how formal or well written it is, as you will come back and revise it later.

Skim read other theses – They give you an idea of the structure, layout, and appropriate academic writing style expected. Past theses are usually kept in your university library.

Refresh your research skills – new formats for materials mean new search strategies may be needed to cover everything you need. See the Library’s advice on how to keep up to date in your subject (link below). Also check the Reading Researcher Development Programme for workshops on all aspects of advanced researching (link in box at left).

Use headings to organise your reading – If you are in the middle of your background reading and can’t see how you can organise your literature review, start by trying to group the articles and books you have read under relevant headings. These headings are usually sub-sections of your topic or sub-questions that you are investigating. Have one sheet of paper per heading to brainstorm your thoughts.

For more on literature reviews, see our guide to Literature reviews (link below) and the relevant RRDP courses.

If you need to obtain materials from other libraries, there is guidance on how to order Inter-Library loans online (link below).

Have a chapter-by-chapter filing system – Your chapters will be the main units of your thesis, so it helps to organise all your information chapter-by-chapter. A box file is great for keeping together all the articles, notes, and drafts relevant to that chapter. You can also use colour coding to help
distinguish information relevant to each chapter when taking notes or reading.

Try free-writing - Give yourself a short time limit, say 10 minutes, and set an alarm. Aim to write constantly about your topic for that time period with no editing, deleting, or searching for references. Allowing yourself the freedom of just writing can help overcome the fear of the blank page or the tendency to continually tweak what you have written.

Manage your data thoughtfully - having a carefully thought-out system for managing your data can save you a lot of time finding things later on - and it's important to think about security if you're collecting any sensitive data. There is advice in our Managing your data guide (link below): note that this is aimed primarily at undergraduates, so you will also want to look at the University's more detailed guide on What is Research Data Management?

In the middle of your thesis

Keep an up-to-date contents list – Your contents list acts like an overview or plan of your thesis, so it is good to keep it in sight or pinned up on your wall. Start drafting out an outline of your thesis contents early on, and keep altering it as you refine your ideas.

Manage your back ups and bibliography – Avoid every PhD student's nightmare of losing your thesis by keeping multiple back ups in different places (on your computer, a memory stick, and a print out). Have a clear way of distinguishing between different drafts, like putting the date in the file name and footer. Also keep your bibliography up to date. Software like EndNote or Zotero can help you manage your references.

Write first for overall structure, edit later – First write to get all your ideas and supporting evidence organised and the overall structure of your chapters in place. Your drafts help you lay the foundations and framework of your thesis. You can always come back and fill in gaps and add details later. Leave the finicky editing of sentences and choice of exact words to the final draft.

Write at the appropriate level for your audience – As a PhD student, you are a member of your research community, and your writing should be aimed at your audience of fellow academics working in your field. Your thesis should be of a high standard of formal academic writing. When reading journal articles, pay attention to the style of writing as well as the content, and use opportunities at conferences to get to know the level of detail and knowledge your audience expects.

Think about how to link chapters – Although your chapters are units of your thesis, they all have to contribute to your overall message. The paragraphs at the beginnings and endings of your chapters are important as they hold it together. Think about whether you need to refer back to previous chapters, important background literature, themes raised in your introduction? It is likely that your chapters will contain cross-references to other parts of your thesis in order to keep bringing up the main themes or messages of your argument. Think about the kinds of signposting and recaps of information that your audience will need.

Getting it finished

Factor in time for revisions – A common pattern is: You finish a draft chapter and give it to your supervisor; they return it with feedback and you make those changes; then you move on to the next chapter. This doesn't mean that your chapter is now complete – you will have to revise it a few times once you have finished all your chapters. Over the course of writing up, your ideas will change and the overall message of your thesis will shift. Build enough time in your plan for revising your chapters as a whole and making changes so they fit together – this can take longer than you think.

Edit meticulously - Examiners expect a high quality of work in a thesis. Spend time checking thoroughly. Pay particular attention to the abstract, contents pages, diagrams, and beginnings and ends of chapters, as examiners often look at these first. Making a good first impression counts.
Discovering information too late – No thesis is perfect or totally up-to-date. If you find relevant new research late on in your writing process, consult with your supervisor. It may be you only need to add a paragraph in your introduction or literature review to acknowledge it. If it is too late for this, don’t worry. Make sure you are familiar with the new research and how it fits with your thesis, so you can defend any questions about it in your viva.

It just has to be good enough! By the time you come to the end of your PhD you should have learned to evaluate your own work and be able to judge when it is good enough to stop. However it can be difficult to have the confidence to stop, so your supervisor may be able to give you guidance. Look back over your plan and research questions – if you have addressed all of them, that is good enough. As your thesis comes to an end, set yourself increasingly tight deadlines to help keep up your momentum and to prevent you from over-editing and tweaking.

**Advanced referencing and academic integrity**

As a postgraduate researcher you are referring to a wider range of sources, keeping track of more references over a longer period of time, summarising more complex material, publishing your own work … and creating new knowledge. This all presents new challenges when referencing and maintaining academic integrity.

The guidance on this page considers some of the referencing challenges faced by postgraduate researchers.

**Can I plagiarise myself?**

As strange as it sounds, it is possible to plagiarise yourself. You may have the opportunity to publish parts of your research as a journal article or in conference proceedings before submitting your thesis. If so, the material is now published and available in the public domain so it needs to be referenced as you would do any other source.

You may have published a number of journal articles over the course of your PhD studies and then be intending to publish your whole thesis as a book once you have graduated. It is good professional practice not to submit for publication the exact same material that is already published elsewhere.

Cutting and pasting large sections of your already-published journal articles straight into your book manuscript would not be acceptable. In most cases publishers ask you to declare that the material you are submitting has not previously been published. It is unlikely that you would want to simply duplicate sections of a journal article in a book anyway as they are aimed at different audiences and for different purposes, so some amount of rewriting and restructuring is always necessary.

You need to consider carefully where and when you decide to publish your work. Your supervisor should be able to advise you on a good publication strategy. The Library also has a Research Publications Adviser who may be able to help.

**Rewrite in my own words?**

Just put it in your own words…sometimes easier said than done! Paraphrasing and summarising are complex skills that take time to develop. It can be particularly challenging if you are trying to summarise very concise scientific writing in which every word seems precise, or summarising very dense prose that is hard to untangle.

Try these strategies for developing your paraphrasing:

* Take every opportunity to practice paraphrasing when note-making - avoid copying chunks of text word-for-word or simply underlining text.

* Read larger sections of text before trying to paraphrase. It is almost impossible to paraphrase line by line as everything seems important. Focus on reading more and extracting one main point, as opposed to lots of individual sentences.

* Thinking time is as important as reading time. It can be very difficult to paraphrase ideas that you don’t fully understand. Allow yourself time to think about what you read, talk about it with others, or imagine how you would explain it to a friend.
Keep your purpose in mind! Nobody will be researching your topic in the same way as you, so the audience and purpose for your writing is unique. It is probably quite different to the audiences and purposes of the texts you are reading, so you won't want to express the ideas in the same way - you will need to rewrite them to show how they fit with your own purpose.

**Using your academic judgement**

Referencing may have been presented in a very clear-cut and absolute way at undergraduate or masters level - you must do it correctly and you must follow the guidance provided. As a postgraduate researcher, you may find referencing is becoming more of a grey area and there are exceptions or complications to ‘the rules’.

This is because referencing forms a vital part of how academics communicate and maintain their academic integrity. It involves developing your confidence and judgement as an academic to make reasoned decisions about how you use sources and how you refer to them fairly.

What might you advise each student to do in the following scenarios?

**Scenario 1:** Jill goes to a conference and talks with another researcher over lunch. She gets a number of very useful ideas from the researcher during the conversation. When she is back at university, Jill includes these ideas in her thesis.

Does this seem reasonable?

**Scenario 2:** Bilal is conducting research as part of an academic and industry partnership. He is trying to compile his literature review but is finding that there isn't much material published in his area as the data is commercially sensitive and isn't being released by the manufacturers. What can he do?

**Scenario 3:** Sam has finished his final draft of his thesis and is about to submit it. He reads a journal article that has just been printed in which another researcher has published very similar findings to Sam’s. Sam hasn't encountered this researcher’s work before, and hasn't included anything about their work in his thesis. Should Sam panic?

**Scenario 4:** Tanya knows her external examiner can be quite tough. She wants to show that she respects this examiner so she quotes large sections of his latest work in her thesis. What do you think of this strategy?

Note that these are dilemmas for you to consider and practise exercising your critical judgement - there may be no absolute answers. If you do find yourself in a similar situation and are unsure of what to do, discuss it with your supervisor.

**How do I reference unusual sources?**

Conducting original research often means you need to consult a broader range of sources which may not be covered in the basic referencing guides.

But no matter what source you are citing or what referencing style you are using, there are some common elements that are needed for any full citation:

1. Author
2. Date
3. Title
4. Publication details

For example all the sources below are different but still have the same common elements:
It is often the publication details which vary the most and need the most consideration of how to present them to be consistent with your referencing style.

If you are not sure how to reference a source, try these steps:

1) Record all the common elements needed for a full citation (see above)
2) Find a model in your referencing style to follow - the joint Study Advice and Library online guide to Citing references has examples.
3) If you can't find a model, be consistent: Follow the same punctuation and layout as your referencing style and include all the elements needed for your reader to find the source.

If you are using whole items like diagrams or photographs in your thesis you may also have to seek permission to reproduce them to prevent any copyright infringement, especially if you are making your final thesis available online. For more information on copyright see the Blackboard course 'Creating your Electronic Thesis' or the University's guidance on Copyright.

How can I keep track of my references?

You are likely to collate hundreds of references over the course of your PhD, so investing some time to set up a logical and easily-managed system that works for you is worthwhile.

Some people prefer a plain Word document that they just keep up-to-date regularly.

However, reference management software like EndNote, Mendeley or Zotero has useful features such as being able to import references from databases, tag and categorise them, and automatically generate bibliographies.

This software can take some time to learn and to set up in the way you want for your referencing style, but it can be very useful.

Journals often have different referencing styles, so if you are planning to submit articles for publication, reference managing software can automatically reformat your bibliography to suit their style, which saves having to do it by hand each time.

The Library supports Endnote. You can attend introductory EndNote training sessions or contact your subject Academic Liaison Librarian for more information.

Free reference management software such as Mendeley and Zotero often has good online help and tips on how to use them effectively.

Working with supervisors

Introduction

The working relationship you have with your supervisor is unique, and it is normal for it to be the source of frustration at some point during your PhD. This is because your supervisor is the one person who is likely to be challenging and (constructively) criticising your ideas on a regular basis.

Like any working relationship, the partnership between you and your supervisor has to be negotiated and will change over time; you also have to accommodate each others' learning and communication styles.

The suggestions on this page offer some good principles and strategies for working effectively with your supervisors.

Different styles of supervision

Each supervisor has a different way of going about it, but a common approach is your supervisor will expect that you can manage your research project from the start, and will leave you to get on with it, until you ask for assistance. Of course, there are always exceptions, and some supervisors do give a lot more guidance and close monitoring at the beginning.

Get to know as much as possible about how your supervisor works and thinks:

* Ask about your supervisor's own experiences as a research student.
* Talk to other research students who have been supervised by them.
* Read your supervisor's articles and published works to get an idea of their approaches and the theories they prefer.
Knowing this will help you better understand the direction and purpose behind their advice.

Also identify your supervisor's learning preferences, as well as your own:

* Does your supervisor prefer details or an overview?
* Is your supervisor a workaholic, or more laid back?
* Do they share the same learning styles as you?

This may help you explain how you work with your supervisor, and how you can compromise if your styles are different.

**Negotiating how you'll work together**

Good, open communication is the key to managing your relationship with your supervisor. At the beginning of your PhD, negotiate how your relationship will function:

* The time and frequency of your supervision meetings.
* An overall plan and timeline for your research, as well as how you will agree on interim deadlines.
* Whether your supervisor would like to see regular pieces of work, or just finished drafts, and how they will give feedback.
* How long your supervisor needs to be able to give feedback - they are often very busy so can't return work in only a few days. You need to be courteous and plan ahead when requesting feedback.
* What kind of skills and training you need (e.g. statistical or research methods, IT training, language support etc).
* Intellectual property and ethical issues (e.g. if you are working as part of a research team or on human/animal research).
* Your expected involvement in department research activities, seminars, and conferences.
* Your career development – e.g. availability of teaching opportunities.
* Also any times when your supervisor will be away (e.g. on research leave, teaching abroad or at conferences) so you can plan for this and agree how you will keep in touch.

**What you can expect from your supervisor:**

You can expect your supervisor to give you guidance on your project and on your own development as a researcher.

**Tip...** Be prepared for your supervisor to "wean you off" their guidance as your research progresses – e.g. in your second year you may ask "Am I going in the right direction?" and they may reply "You should be able to decide that for yourself". Take this as a positive sign that your supervisor thinks you are ready to have more independence.

**What your supervisor expects from you:**

Your supervisor expects you to take the initiative and take responsibility for your own research. They expect you to be independent, but also to communicate well and keep them informed of how you are doing and what you are thinking.

**Tip...** It is your responsibility to monitor your own study and contact your supervisor if you are having problems: don't wait for them to email you. If they don't hear from you, they will probably assume you are doing fine.

For more specific guidance on the roles and responsibilities of supervisors and PhD students, see The University's 'Code of Practice on Research Students' by following the links on the Policies and procedures page of the Graduate School website.

**Before, during and after supervisions**

Before supervisions prepare for the meeting by thinking of:

* Your progress and achievements since the last meeting
* Any problems or points you need clarifying
* An action plan of what to do next

**Tip...** Don't be afraid to put questions to your supervisor, but it is often better to ask specific questions that you have attempted to find answers to first. Instead of asking "How am I doing?" you are more likely to get the detailed
answer you need if you ask, "What do you think of the methodology I am using in Chapter 1?"

**During your supervisions:**
* Take notes, especially of any actions or things to follow up.
* Pay attention to the questions your supervisor asks, as these are often crucial in helping you think about the direction of your research.
* Take the opportunity to explain and defend your ideas verbally – this is all good training for your viva.

**After your supervisions:**
* It can be helpful to email a list of your agreed action points to your supervisor to check there have been no misunderstandings.
* Reflect on what you have discussed – it is likely to trigger more ideas.
* Take your supervisor's advice seriously – they don't expect you to follow everything they suggest, but they do expect you to consider it carefully.

**Managing joint supervisors**
It is normal practice for students to be allocated more than one supervisor. Sometimes students may have a primary supervisor who will be the main source of guidance, and a co-supervisor who may provide specific expertise or be consulted less often. In other cases, two supervisors or a supervisory team will have equal input. Having two supervisors provides a variety of perspectives, but it can be difficult as you may have to juggle conflicting advice and have to please two people instead of just one. Some ways of managing this are:
* Suggest a joint meeting with your supervisors at the start to clarify how you all will work together.
* Have a joint supervision at least once a term if possible to help get consensus between all involved.
* It is easier if your supervisors can agree on defined roles and responsibilities – e.g. one is the lead supervisor, and the other a secondary supervisor, or one provides expertise in a certain field, and the other in a different area of research.
* Ensure you keep both supervisors up to date and communicate with both.
* Never play one supervisor off against the other. If you are unhappy with the advice from one supervisor, don't go to the other in the hope of getting different advice, as this can lead to confusion and bad feeling between all parties. If you do get advice that you don't agree with, try to discuss it openly, explaining your own thinking and any doubts you may have.

If you only have one supervisor, you may ask for a second to be appointed. Do get in touch with them first to check that they are happy to supervise your project.

**Dealing with problems**
PhD study can be a long, intense, and emotional process, and unfortunately in some rare cases the supervisory relationship can break down. If you are having problems working with your supervisor:
* Try to talk to your supervisor about your difficulties first – and see if you can work them through.
* Take a step back and identify what is making it difficult to work together – focus on specific professional difficulties, as opposed to the character or personality of your supervisor.
* Be tactful and discrete – don't moan about or criticise your supervisor in your department.
* Get an objective, confidential, outside perspective from someone you can trust, such as a friend or Study Adviser.
* Ask fellow PhD students who you can trust if they have had similar problems and how they have managed them.
* Try to maintain communications with your supervisor and don't let the relationship deteriorate to a point where you don't talk.
* If things are very difficult, see if you can find a third person to be a mediator. This could be the Director of Postgraduate Research in your department or your Head of Department. Do not
be worried about doing this, as it will not reflect badly on you. The Director or Head will be able to see if the issues can be resolved or, if necessary, consider alternative supervisory arrangements.

As you progress

It is likely that as your research progresses you will become more knowledgeable in your specific research topic than your supervisor. Your supervisor will still have the broader depth and understanding of your chosen field, but you will be the expert in your research. This should give you increasing confidence, but can also make you feel like you are stepping into uncharted territory and your supervisor is less able to guide you.

As you become more expert, you will need tactfully and gently to educate your supervisor in two areas:

* Keeping them up-to-date in the leading edge research you are doing and the new developments or findings in your particular (narrow) area.
* Letting them know the kinds of support and input you need.

Tip... Build up your own support network of peers and fellow researchers in your field – these may be students in your department, people you meet at conferences, or contacts via mailing lists. They can give additional feedback and perspectives to those of your supervisor.

Your relationship with your supervisor will change. In time, they may become less of a mentor and more of a sounding board for your ideas.

Getting the most out of conferences

They are an important contact who can help introduce you to others in your chosen field, and help you get recognition. If you are both able to communicate effectively and accommodate each other's styles of working it is likely to be a successful and rewarding partnership.

As a postgraduate student you may be thinking about attending, or presenting at, a conference or seminar relevant to your area of work. Going to conferences can be a great opportunity to test out your ideas, gain feedback, and make contacts. However, these events can be quite daunting if you have never attended one before. It is common for postgraduate researchers to have concerns about their level of expertise and the kinds of questioning they may encounter at conferences. However, with good planning and preparation you can go to conferences feeling confident and knowing what you would like to get out of them.

This guide offers some suggestions to help you get the most out of conferences, whether you are attending, or presenting a paper (or poster) of your own.

Preparing to attend a conference

Conferences are useful for:

* keeping up to date with the latest developments in your field
* making contacts and getting to know your peers
* getting feedback on ideas
* developing presentation skills
* disseminating your research
* an opportunity to be published in the conference proceedings

They can also be very hard work, and expensive to attend, so choose the conferences you attend wisely - don't try to go to everything that's vaguely relevant.

Funding:

Check out conference details to see if there are any bursaries or reduced rates for postgraduate students. There may be travel bursaries available from your department or funding body, or from a subject association. Be aware that, even if you are presenting a paper, you may not be reimbursed for travel or accommodation - always check with the organisers if it's not clear.

Treat it like work:

Be prepared for your first few conferences to be stimulating but intense. Many people find them stressful for a number of reasons:

* meeting a lot of new people
* listening to complex ideas can be draining
* nerves involved in public speaking
* organising travel, accommodation and navigating an unfamiliar place

You can reduce your stress by:
* being well prepared and organised
* working on introductions – think of how you will talk interestingly about yourself and your research when chatting informally
* going with someone you know
* going to your first conference as an observer, as opposed to presenting
* talking to your supervisor or a Study Adviser about presenting effectively

Attending a conference

As an observer, you have a great opportunity to listen to and network with experienced academics and your peers. These skills can be most valuable to you in your research though they are often not mentioned or taught.

Listening to papers

Have a look at the conference programme before you arrive and choose the papers you want to attend. Check out any maps of strange campuses too - you don't want to find that you have two minutes to navigate to a room in a completely different building.

It can be difficult to follow complex ideas in spoken presentations, so don't worry about capturing all the details if you're taking notes. It's more important to note how the presentation influenced your own thoughts and how it fits with your research:

* Write down any questions you might want to ask afterwards or follow-up later.
* If you don't get a chance to ask your question at the end of the paper, most presenters are happy to chat later over coffee or over meals.
* After the conference, write a few paragraphs summarising what you learned and how it stimulated your thinking.

Networking and making contacts

Before you go, it can help to identify some people you'd like to talk to and read up on their work. Be aware that the key speakers will be busy and in demand. Consider emailing them afterwards instead of approaching them on the day. Be interested and ask sensible questions. People love to talk about their own work. Be friendly and don't try too hard to impress people.

Eat lunch with different people each day. Interesting conversations often happen in coffee breaks, in the bar, or over meals – try to do some socialising and have informal chats.

Interest groups, organisations or committees are often formed at conferences – see if you can volunteer or join in. But if you do, keep your promises – if you say you'll email someone afterwards or send them a paper, make sure you do.

Contacts made at conferences tend to have a high drop-out rate. Don't take it personally. If you make one good contact – job done!

Presenting at a conference

As well as listening and networking, you may have the opportunity to present your work and get feedback from your peers.

When writing a proposal or abstract, make sure your topic is relevant to the subject and level of the conference, and that you can deliver your argument clearly in the time allotted. Your supervisor may be happy to look over your abstract before you submit it - but don't assume they'll be able to drop everything to read it through and give comments five minutes before the deadline. Remember too that if your abstract is accepted, you will have to write the paper! Schedule in time to do this around your research.

When preparing your paper, ask yourself - what is the main message you want to get across? How can you best convey this to your audience? In a short presentation (20-30 minutes) you will not have time to do more than develop 3 or 4 main points. Even in a long paper, try to group your points in 3 or 4 sections to help listeners understand your arguments.

Practise public speaking before you go – in graduate seminars, with friends, or as part of a
speaking group. Practise keeping to time, as the Chair is likely to be a strict timekeeper. If you're using PowerPoint or visual aids – practise with them and make sure the conference organisers know what equipment you need.

There are lots of presenting styles ranging from reading from a script to ad libbing. Aim for somewhere in between – a natural, well prepared style. Study Advisers can advise on how to present more effectively.

Many people are concerned about how to prepare for questions. Think of it as a discussion not a trial. Remember that you can open the subject out to the audience, or acknowledge you need more time to think about it.

If you have a lot of references or data, it may be a good idea to provide a handout. Check with the organisers if they will be prepared to copy a handout for you, or, if you have to bring your own copies, how many are likely to be needed. Even if you don't need a handout, have some slips with your name and email address to hand out to anyone that's interested in your work.

If you are presenting a poster, you will still need to think about how you are communicating your information. You will also be expected to stand by your poster and answer questions - or even do a mini-presentation. Check with the conference organisers what is expected. If you are representing the University of Reading with your conference poster, it may also be helpful to consult the guidance on the Design & Print Studio webpages.

Vivas

The relief of submitting your thesis often comes with some concern about the upcoming viva (viva voce examination), and what it will entail. You have worked incredibly hard to complete your research, so it is natural to be slightly worried about whether what you have done is good enough and how intensive the questioning in the viva might be. Although the viva experience varies for each individual, most students say that it is challenging, but enjoyable, as it offers them the chance to discuss their research with the few people who understand and appreciate their work as fully as they do!

Hopefully you will have had some experience of discussing your research either in seminars, progress reviews, or at conferences and you can build on this when preparing for your viva. Supervisors may offer the chance to do a practice, or mock-viva, which can be a very useful experience.

Reminding yourself that you are the expert in your research, and anticipating a range of possible questions will help you prepare thoroughly for having a good viva. The advice on this page offers further suggestions and strategies for viva success.

What is a viva?

A viva voce is an oral examination (usually referred to as a viva). In some courses, students are given vivas as part of the undergraduate or Masters assessment process. However, it is more usually found as part of the final assessment process for PhD students.

Its main purpose is to assess your research and subject knowledge. The viva will generally be conducted by an external examiner and an internal examiner. Although the format may vary, it will involve a discussion of your research topics and conclusions. You will be asked questions that will give you the opportunity to show the examiners your research skills and the originality of your ideas.

In some academic cultures, this examination is known as a 'thesis defence'. However in the UK, it is more commonly seen as a dialogue: a chance for you to explain and expand on your research to examiners who are experts in your field.

Preparing for your viva

Format - Make sure you know what the format will be. It may be helpful to look at the University's Rules for Submission of Theses and Guide for Examiners of higher degrees by research (link below). The Graduate School's 'Surviving the Viva' guide also has more explanation of the specific procedures here at Reading, and can be found as part of their Guides for Students. In
addition, talk to people who have recently gone through the viva process in your department. Your viva will not be exactly the same as theirs, but it will give you a better idea of what might happen.

Prepare - It is crucial that you prepare well for your viva. This will help calm your nerves and also ensure that you make a good impression on the examiners. Know your thesis well; reread it and annotate it - you will be expected to take a copy into the viva, and it will be helpful if you can find key areas quickly. Also keep reading the latest research in your field - this will keep you aware of current developments and stimulate your thinking. If you find something new that you think you should have included, don't panic - just make a note and be prepared to talk about it in the viva.

Practise - Ask your supervisor if it is possible for you to have a practice viva. This will help you familiarise yourself with the whole process. For more suggestions about speaking in public, see our LibGuide on Giving presentations.

Who is your examiner? - It will help you to feel more confident if you know a bit more about who will be examining you. Find your external examiner online and make sure you're familiar with their area of expertise and publications. You will not be expected to tailor your thesis to your examiner as it is your project and it should be able to be examined by anyone with sufficient expertise in the field. However, knowing your examiner's own research preferences may help you to see what areas of your thesis they will be most interested in discussing. Finding a photograph may also help to calm your nerves.

Make a list of possible questions - There may be obvious questions you're likely to be asked, and preparing the answers to these questions is always helpful. Some of the broad questions that most vivas will cover are:

* "What have been the significant contributions of your research?"
* "What would you do differently if you were setting out to do it today?"
* "Where do you see this kind of research moving in the future?"

You might also want to think about anything in your thesis that is controversial or new. What would you say if you were asked about these?

Often the examiners will want to put you at your ease as much as possible, so may start with a general question to help calm you and establish a good relationship, for example:

* "Tell me about your research"
* "What motivated you to do research in this area?"
* "How did you develop an interest in this topic?"

These type of questions can be unnerving, even if they are not intended to be, as they seem very broad and simple. Think about how you might answer them clearly and concisely to get the viva off to a good start.

There are more examples of potential viva questions in the Graduate School's 'Surviving the Viva' in their Guides for Students

Explain it to a friend - When you've been working on a complex project for a number of years, it can be hard to see the bigger picture. It can help to get your ideas straight in your head if you have to give a simple explanation to someone outside of your topic.

Don't rush your answers - Take your time. Listen carefully and allow yourself time to process what the examiner has said, or ask for clarification. Your examiners are not expecting (or wanting) you to jump in with an answer as soon as they have finished speaking. Have a drink of water, or use phrases such as 'That's a good question' to give yourself time to think.

Discuss and explain - Don't answer questions with 'yes' or 'no', but justify your comments with examples or evidence. Some questions may explore areas of your thesis that show weaknesses. This is normal; your examiners are not expecting perfection and they recognise that all research has limitations. They want to see that you have thought about any weaknesses, the reasons behind them, and how these limitations may be overcome in future. So it is important to consider and explain any weaknesses, as opposed to trying to dismiss or hide them.
Answer with confidence but don’t be defensive. The examiners are likely to challenge you in a constructive way and press you to justify your approach and findings, but they are not there with the intention of failing you - they want to hear what you have to say about your work.

Stay calm - Don't forget, this is the one exam where you are likely to know more about the subject than those giving the marks! The examiners want to get the best out of you. As long as you do the preparation, you'll be fine.

Getting your results
In some cases you may be told the result of your viva straight away, but more often the examiners will ask you to leave the room and wait nearby while they take a little time to discuss before making a decision. The four possible outcomes are:

- The degree will be awarded
- The degree will be awarded subject to minor corrections (to be completed within three months)
- The student is required to make major amendments (to be completed within 12 months)
- The student will not be awarded the degree for which the thesis is submitted (in some cases the examiners might award an alternative degree).

It is very unusual to pass without any changes - almost everyone has to make some revisions.

Dealing with corrections and revisions
The outcome of a viva is not usually a clear pass / fail result. Nearly all students will have to make changes, ranging from minor corrections to major amendments. Being asked to make revisions means having the chance to improve your work in light of the comments of experts in your field - it does not mean you have 'failed'. It will also strengthen your work for the future.

Understandably most postgraduate students see their viva as the end of their PhD journey, but for almost everybody there will be a few more steps to go. It may be difficult for you to get back into working mode when you thought you had finished. Below are some suggestions to help you manage your corrections and revisions, and get your changes done.

Allow yourself some time off
Give yourself a chance to recover and refocus on your goals
Remember your reasons for doing a PhD and use these aims to motivate yourself in the final stages

Get another perspective
Having been involved in intense study activity (and probably anxiety) in the run-up to your viva, it is not surprising if you find yourself feeling quite emotional and even confused afterwards. This can be the case whether you have passed without corrections, have minor amendments or major revisions to complete.

Many students have found that talking to someone who has not been involved can help to put the whole experience into perspective. This might be a Study Adviser, who can also help with your organisation and time management to get revisions completed, or someone from Student Wellbeing.

Get the list of corrections
The examiners will produce a list of the changes they require you to make. This will usually be forwarded to you from the Examinations Office or via your department.

Make sure you get this as soon as possible, as you will need to demonstrate that you have made all these changes satisfactorily; it will form the basis of what you do next.

See your supervisor - soon
Talk through with your supervisor what you plan to do for each correction, and check that this is what is needed. Arrange a deadline for making the changes and confirm that your supervisor will be available to give feedback on your changes.

You and your supervisor may decide that a fresh perspective is needed, so your supervisor might suggest a colleague that could advise on the corrections.

Clarify what you need to do
Check with the examiners (if possible) or your supervisor (if not) what they want for each
correction. For example does “Expand on method in Chapter 3” mean write a few more sentences explaining the method, or add a whole new section to Chapter 3 going through the methodology in fine detail?

**Draw up a timetable**

Normally, minor corrections have to be made within 3 months, and major amendments need to be made within 1 year of the viva.

Draw up a realistic timetable for making the changes – taking into account outside pressures like your funding ending, returning home, finding a job, family commitments. Just like when you were writing the thesis, break the corrections into tasks that need to be done, and set aside specific times when you will do them.

**Don’t leave it too long**

Although you might not want to look at your thesis ever again, it is better to get going while it is fresh in your mind. The longer you leave it, the harder it is to get started again.

* Start with the smaller tasks that are easier to complete, like correcting typos, to get back into the flow of working.
* Recognise when you are procrastinating and overcome this by setting yourself small goals and rewards.

**Stay focused**

Don’t agonise about getting changes “perfect” and reworking the whole thesis. At this stage you need to be clear what the examiners want and give it to them. Be thorough, but be efficient. It is well worth spending time getting the corrections right as they will strengthen your thesis, but also recognise when you may be going beyond the bounds of what is required, and try to be as business-like and objective about making the corrections as you can.

**Check the changes with your supervisor**

You don’t want to have to make any further corrections after your resubmission, so check with your supervisor that you have covered everything the examiners require.

Your supervisor may be able to point out places that you can strengthen or reword to ensure you meet the examiners’ criteria.

**Resubmit**

Once you and your supervisor are happy that you have made all the necessary corrections and completed them thoroughly – resubmit the thesis.

Ensure you are clear on the University procedures for resubmission – the examiners may have the option of asking for a second viva.

**Remember:** In years to come no one will ever ask you about your corrections. Many top academics had to make major changes to their theses and this has helped, not harmed, their careers.

**Appeals**

Appeals are possible in the case of irregularities in the examination procedure, exceptional circumstances, or evidence of prejudice and bias. Appeals cannot be made against the academic judgement of examiners. Check the University procedures for appeals (which can be obtained from the Examinations Office) and contact your supervisor or department if you are considering appealing. You may also find it helpful to discuss your reasons for appealing with a RUSU Student Adviser who will be able to give you confidential advice on your appeal options.

This guide reproduces the text of our LibGuide for Research Postgraduates. The online guide has links to additional information and can be found at:

https://libguides.reading.ac.uk/research-postgraduates

For tips and guidance on other academic skills, see the Study Advice website at www.reading.ac.uk/library/study-advice