

Metadata

Title	Research Skills
Description	
Keywords	
Objectives	
Author	SSDS
Organisation	University of Leicester
Version	V1.0
Date	24 Jan 2010
Copyright	

Research proposal

This checklist provides you with a good starting point for your dissertation project. Filling in all of the sentences will help you to write a dissertation proposal. This is an important first step in any research project. To use this checklist print this page and complete the unfinished sentences.

Questions	Answers
Topic:	This project will study...
Question/problem:	To find out...
Significance:	So that more will be known about...
Primary resources:	The main data will be...
Secondary sources:	Additional data comes from (e.g. books/journals etc)...
Methods:	The research will be conducted as follows...
Justification:	The method is most appropriate because...
Limitations:	There are some matters that this methodology may not help me to explain. These might include...

Doing a literature review

Aims and Objectives

The focus of the Study Guide is the literature review within a dissertation or a thesis, but many of the ideas are transferable to other kinds of writing, such as an extended essay, or a report.

What is a literature review?

The ability to review, and to report on relevant literature is a key academic skill. A literature review:

- situates your research focus within the context of the wider academic community in your field;

- reports your critical review of the relevant literature; and
- identifies a gap within that literature that your research will attempt to address.

To some extent, particularly with postgraduate research, the literature review can become a project in itself. It is an important showcase of your talents of: understanding, interpretation, analysis, clarity of thought, synthesis, and development of argument. The process of conducting and reporting your literature review can help you clarify your own thoughts about your study. It can also establish a framework within which to present and analyse the findings.

After reading your literature review, it should be clear to the reader that you have up-to-date awareness of the relevant work of others, and that the research question you are asking is relevant. However, don't promise too much! Be wary of saying that your research will solve a problem, or that it will change practice. It would be safer and probably more realistic to say that your research will 'address a gap', rather than that it will 'fill a gap'.

Why do I need a literature review?

When readers come to your assignment, dissertation, or thesis, they will not just assume that your research or analysis is a good idea; they will want to be persuaded that it is relevant and that it was worth doing. They will ask questions such as:

- What research question(s) are you asking?
- Why are you asking it/them?
- Has anyone else done anything similar?
- Is your research relevant to research/practice/theory in your field?
- What is already known or understood about this topic?
- How might your research add to this understanding, or challenge existing theories and beliefs?

These are questions that you will already probably be asking yourself. You will also need to be ready to answer them in a viva if you will be having one.

A critical review

It is important that your literature review is more than just a list of references with a short description of each one. Merriam (1988:6) describes the literature review as:

'an interpretation and synthesis of published work'.

This very short statement contains some key concepts, which are examined in the table below.

Concepts	Explanation	Associated critique
Published work	Merriam's statement was made in 1988, since which time there has been further extension of the	Increased ease of access to a wider range of published material has also increased the

	concept of being ' published ' within the academic context. The term now encompasses a wide range of web-based sources, in addition to the more traditional books and print journals.	need for careful and clear critique of sources. Just because something is 'published' does not mean its quality is assured. You need to demonstrate to your reader that you are examining your sources with a critical approach, and not just believing them automatically.
Interpretation	You need to be actively involved in interpreting the literature that you are reviewing, and in explaining that interpretation to the reader, rather than just listing what others have written.	Your interpretation of each piece of evidence is just that: an interpretation . Your interpretation may be self-evident to you, but it may not be to everyone else. You need to critique your own interpretation of material, and to present your rationale, so that your reader can follow your thinking.
Synthesis	The term ' synthesis ' refers to the bringing together of material from different sources, and the creation of an integrated whole. In this case the 'whole' will be your structured review of relevant work, and your coherent argument for the study that you are doing.	Creating a synthesis is, in effect, like building interpretation upon interpretation. It is essential to check that you have constructed your synthesis well, and with sufficient supporting evidence.

When to review the literature

With small-scale writing projects, the literature review is likely to be done just once; probably before the writing begins. With longer projects such as a dissertation for a Masters degree, and certainly with a PhD, the literature review process will be more extended.

There are three stages at which a review of the literature is needed:

- an early review is needed to establish the context and rationale for your study and to confirm your choice of research focus/question;
- as the study period gets longer, you need to make sure that you keep in touch with current, relevant research in your field, which is published during the period of your research;
- as you prepare your final report or thesis, you need to relate your findings to the findings of others, and to identify their implications for theory, practice, and research. This can involve further review with perhaps a slightly different focus from that of your initial review.

This applies especially to people doing PhDs on a part-time basis, where their research might extend over six or more years. You need to be able to demonstrate that you are aware of current issues and research, and to show how your research is relevant within a changing context.

Who can help?

Staff and students in your area can be good sources of ideas about where to look for relevant literature. They may already have copies of articles that you can work with.

If you attend a conference or workshop with a wider group of people, perhaps from other universities, you can take the opportunity to ask other attendees for recommendations of articles or books relevant to your area of research.

Your University, department or school may have specialist “Information Librarian” who will be happy to help you find information; provide training in information skills and support in the use of databases.

Getting started

Reading anything on your research area is a good start. You can then begin your process of evaluating the quality and relevance of what you read, and this can guide you to more focussed further reading.

Taylor and Procter (2008) of The University of Toronto have some useful suggested questions to ask yourself at the beginning of your reading:

- What is the specific thesis, problem, or research question that my literature review helps to define?
- What type of literature review am I conducting? Am I looking at issues of theory? methodology? policy? quantitative research? qualitative research?
- What is the scope of my literature review? What types of publications am I using (e.g., journals, books, government documents, popular media)?
- What discipline(s) am I working in (e.g., nursing, psychology, sociology, medicine)?

You can add other questions of your own to focus the search, for example: What time period am I interested in? What geographical area? What social setting? What materials?

You may also want to make a clear decision about whether to start with a very narrow focus and work outwards, or to start wide before focussing in. You may even want to do both at once. It is a good idea to decide your strategy on this, rather than drifting into one or the other. It can give you a degree of control, in what can feel like an overwhelming and uncontrollable stage of the research process.

Ways of finding relevant material

Electronic sources

Searching electronic databases is probably the quickest way to access a lot of material. Guidance will be available via your own department or school and via the relevant Information Librarian.

There may also be key sources of publications for your subject that are accessible electronically, such as collections of policy documents, standards, archive material, videos, and audio-recordings.

References of references

If you can find a few really useful sources, it can be a good idea to check through their reference lists to see the range of sources that they referred to. This can be particularly useful if you find a review article that evaluates other literature in the field. This will then provide you with a long reference list, and some evaluation of the references it contains.

Hand searching of journals

No electronic literature search can be 100% comprehensive, as the match between search terms and the content of articles will never be perfect. An electronic search may throw up a huge number of hits, but there are still likely to be other relevant articles that it has not detected. So, despite having access to electronic databases and to electronic searching techniques, it can be surprisingly useful to have a pile of journals actually on your desk, and to look through the contents pages, and the individual articles.

Often hand searching of journals will reveal ideas about focus, research questions, methods, techniques, or interpretations that had not occurred to you. Sometimes even a key idea can be discovered in this way. It is therefore probably worth allocating some time to sitting in the library, with issues from the last year or two of the most relevant journals for your research topic, and reviewing them for anything of relevance.

Blaxter et al. (2001:103) recommend this method, in addition to other more systematic methods, saying:

'Take some time to browse – serendipity is a wonderful thing.'

Collecting material

To avoid printing out or photocopying a lot of material that you will not ultimately read, you can use the abstracts of articles to check their relevance before you obtain full copies.

EndNote and *RefWorks* are software packages that you can use to collect and store details of your references, and your comments on them. As you review the references, remember to be a critical reader.

Keeping a record

Keeping a record of your search strategy is useful, to prevent you duplicating effort by doing the same search twice, or missing out a significant and relevant sector of literature because you think you have already done that search. Increasingly, examiners at post-graduate level are looking for the detail of how you chose which evidence you decided to refer to. They will want to know how you went about looking for relevant material, and your process of selection and omission.

You need to check what is required within your own discipline. If you are required to record and present your search strategy, you may be able to include the technical details of the search strategy as an appendix to your thesis.

Plagiarism

Plagiarism is regarded as a serious offence by all Universities, and you need to make sure that you do not, even accidentally, commit plagiarism.

Plagiarism is the using of someone else's words or ideas, and passing them off as your own. It can happen accidentally, for example, if you are careless in your note-taking. This can mean that you get mixed up over what is an exact quote, and what you have written in your own words; or over what was an idea of your own that you jotted down, or an idea from some text.

A practical way to help you avoid accidentally forgetting to reference someone else's work, is routinely to record short extracts of text verbatim i.e.: using the exact words of the author, rather than putting the idea into your own words at the point where you are still reading. You will need to put inverted commas ('xxx') around the exact quote, and record the page number on which it appears.

This has the advantage that, when you come to use that example in your writing up, you can choose:

- to use the exact quote in inverted commas, with the reference and page number; or
- to describe it in your own words, and use the standard reference format, without the page number, to acknowledge that it was someone else's idea.

Help is available regarding how to avoid plagiarism and it is worth checking it out. Your department will have its own guidance.

When to stop

It is important to keep control of the reading process, and to keep your research focus in mind. Rudestam and Newton (1992:49) remind us that the aim is to 'Build an argument, not a library'.

It is also important to see the writing stage as part of the research process, not something that happens after you have finished reading the literature. Wellington et al (2005:80) suggest 'Writing while you collect and collecting while you write.'

Once you are part way through your reading you can have a go at writing the literature review, in anticipation of revising it later on. It is often not until you start explaining something in writing that you find where your argument is weak, and you need to collect more evidence.

A skill that helps in curtailing the reading is: knowing where to set boundaries. For example, a study of the performance of a clinical team working in gerontology might involve reading literature within medicine; nursing; other allied healthcare specialties; psychology; and sociology; as well as perhaps healthcare policy; and patients' experiences of healthcare. Decisions need to be made about where to focus your reading, and where you can refer briefly to an area but explain why you will not be going into it in more detail.

Writing it up

The task of shaping a logical and effective report of a literature review is undeniably challenging. Some useful guidance on how to approach the writing up is given by Wellington et al (2005:87):

- “It should be framed by your research questions.
- It must relate to your study.
- It must be clear to the reader where it is going: keep signposting along the way.
- Wherever possible, use original source material rather than summaries or reviews by others.
- Be in control, not totally deferent to or ‘tossed about by’ previous literature.
- Be selective. Ask ‘why am I including this?’
- It is probably best to treat it as a research project in its own right.
- Engage in a dialogue with the literature, you are not just providing a summary.”

In most disciplines, the aim is for the reader to reach the end of the literature review with a clear appreciation of what you are doing; why you are doing it; and how it fits in with other research in your field. Often, the literature review will end with a statement of the research question(s).

Having a lot of literature to report on can feel overwhelming. It is important to keep the focus on your study, rather than on the literature (Wellington 2005). To help you do this, you will need to establish a structure to work to. A good, well-explained structure is also a huge help to the reader.

Structure

As with any piece of extended writing, structure is crucial. There may be specific guidance on structure within your department, or you may need to devise your own.

Examples of ways you might structure your literature review are:

- chronologically; although be careful not just to list items; you need to write critically, not just descriptively;
- by theme; this is useful if there are several strands within your topic that can logically be considered separately before being brought together;
- by sector e.g.: political background, practice background, methodological background, geographical background, literary background;
- by development of ideas; this could be useful if there are identifiable stages of idea development that can be looked at in turn;
- by some combination of the above, or by another structure you create.

There are many possible structures, and you need to establish one that will best fit the 'story' you are telling of the reason for your study. Once you have established your structure you need to outline it for your reader.

A narrative thread

Although you clearly need to write in an academic style, it can be helpful to imagine that you are telling a story. The thread running through the story is the explanation of why you decided to do the study that you are doing. The story needs to be logical, informative, persuasive, comprehensive and, ideally, interesting. It needs to reach the logical conclusion that your research is a good idea.

If there is a key article or book that is of major importance to the development of your own research ideas, it is important to give extra space to describing and critiquing that piece of literature in more depth. Similarly, if there are some studies that you will be referring to more than to others, it would be useful to give them a full report and critique at this stage.

Using tables

As well as using tables to display numerical data, tables can be useful within a literature review when you are comparing other kinds of material. For example, you could use a table to display the key differences between two or more:

- possible theoretical perspectives;
- possible methods;
- sets of assumptions;
- sample profiles;
- possible explanations.

The table format can make the comparisons easier to understand than if they were listed within the text. It can also be a check for yourself that you have identified enough relevant differences. An omission will be more obvious within a table, where it would appear as a blank cell, than it would be within text.

Reference list

Almost all academic writing will need a reference list. This is a comprehensive list of the full references of sources that you have referred to in your writing. The reader needs to be able to follow up any source you have referred to.

The term 'bibliography' can cause confusion, as some people use it interchangeably with the term 'reference list'; but they are two different things. The term 'bibliography' refers to any source list that you want to place at the end of your writing, including sources you have not referenced, and sources you think readers may want to follow up. A bibliography is not usually necessary or relevant, unless you have been asked to produce one.

Common concerns

Help! I've spent ages reading up on Method 'A', and now I've decided to use Method 'N'. I feel I've wasted all that time!

This experience is common in PhD study, but it can happen at any level, and can feel as if you have wasted a lot of effort. Looking at this positively, however, you have probably read more widely than you might otherwise have done. Also, it may still be possible to include some of this learning in your write-up, when you explain why you decided not to use Method 'A'. It is also possible that, in a viva, you will be asked why you didn't use that method, and you will be well-prepared to answer in detail.

Help! I thought I had a really good idea for my research, and now I've found that someone else has already asked the same research question!

That probably confirms that it was a good question to ask! Although this can feel very disappointing at first, it can often be transformed into a benefit. It is important that your research fits logically within the existing research in your area, and you may have found an ideal study to link with and to extend in some way. Remember that:

- if it (or something very like it) has been done before, and has been published, it is likely that this signifies it was a relevant and important topic to investigate;
- you can learn from how the previous researchers did it: what worked and what didn't;
- did the previous researchers suggest any further research? If so, you may be able to link your own plans to fit with their suggestions;
- can you take the investigation further by doing your own similar research: in a different setting; with a different sample; over a different timescale; with a different intervention etc.;
- their literature review and reference list should be useful.

Help! I think I've got a great idea for a study, but I can't find anything published about the topic.

Firstly, this is unlikely. Perhaps if you modify your search strategy you will find something. However, if there really isn't anything, then you need to ask why this is the case. Check out whether there is an important reason why the research has not been

done, which would make it sensible for you to choose a different focus. If you do decide to go ahead, then take extra care designing your research, in the absence of guidance from previous studies.

Blaxter et al. (2001:125) suggest that, if there appears to be no research in your field:

'...you should probably consider changing your topic. Ploughing a little-known furrow as a novice researcher is going to be very difficult, and you may find it difficult to get much support or help.'

An important aspect of your thesis and your viva, is that you can show how your research fits with other research. This will be just as important when there is limited existing research in your area, as when there is an abundance.

Reviewing your review

Once you have a first draft of your literature review it is possible for you to assess how well you have achieved your aims. One way of doing this is to examine each paragraph in turn, and to write in the margin a very brief summary of the content, and the type of content e.g.: argument for; argument against; description; example; theory; link. These summaries then provide the outline of the story you are telling, and the way that you are telling it. Both of these are important and need to be critically reviewed.

Useful questions at this stage include:

- What is the balance between description and comment?
- Have I missed out any important dimension of the argument, or literature?
- Have I supported the development of each step in my argument effectively?
- Is the material presented in the most effective order?
- Are there places where the reader is left with unanswered questions?
- Is every element of my research question supported by the preceding material?
- Have I explained to the reader the relevance of each piece of evidence?
- Is there any material that is interesting but which does not contribute to the development of the argument?
- Have I explained adequately the justification for this research approach / topic / question?
- Are my references up to date?
- How effective is my linking of all the elements?

Beware of becoming too attached to your writing. You need to be ready to cross out whole paragraphs or even whole sections if they do not pass the above tests. If you find that what you've written is not in the best order, then re-shaping it is not a huge problem. It may be mainly a case of cutting and pasting material into a different order, with some additional explanation and linking. If this produces a more relevant and streamlined argument it is well worth the effort.

References

1. Blaxter L., Hughes C. & Tight M. (2001) How to research. Buckingham: Open University.
2. EndNotes. Found at: <http://www.endnote.com/>
3. Merriam S. (1988) Case study research in education: a qualitative approach. San Francisco, CA: Jossey-Bass.
4. RefWorks. Found at: <http://www.refworks.com/>
5. Rudestam K. & Newton R. (1992) Surviving your dissertation. London: Sage.
6. Taylor D. & Procter M. (2008) The literature review: a few tips of conducting it. Health Services Writing Centre: University of Toronto. <http://www.utoronto.ca/writing/litrev.html>
7. Wellington J., Bathmaker A., Hunt C., McCulloch G., & Sikes P. (2005) Succeeding with your doctorate. London: Sage

Guidance on research ethics for research involving human participants

Aims and Objectives

This study guide:

- discusses the place of ethics within society, and within research;
- introduces the research ethics review process within the UK National Health Service;
- gives an overview of the University's research ethics review process.

Introduction

The Oxford English Dictionary Online (2007) defines ethical behaviour as being:

"In accordance with the principles of ethics; morally right; honourable; virtuous; decent."

It defines ethics as:

"The whole field of moral science."

As well as being integral to our everyday lives, ethics is a major branch of philosophy that has occupied great minds for many centuries. This Study Guide will identify the core ethical principles relevant to research with human participants, and will translate these principles into specific guidance to support researchers.

Relevance of ethics in society

Most of us probably feel that we have an in-built understanding of what is meant by 'ethical behaviour' at a personal level. It might include:

- not causing people harm;
- being honest;
- being fair.

More widely in UK society there are many topics that give rise to ethical debate, for example:

- use of non-renewable energy;
- donation of organs after death;
- introduction of identity cards.

This shows several characteristics of ethical debates: they often have wide relevance; they often involve sensitive areas; and there tend to be no definitive answers.

Relevance of ethics within the research process

In their book 'How to research', Blaxter *et al.* (2001) cover the subject of research ethics within their chapter on data collection. To show how widely relevant ethical challenges can be, they give a list of examples of ethical questions from real life research studies, a selection of which is shown in Box 1.

Box 1: Examples of ethical questions within the research process

- You find a newsgroup on the web that is discussing issues central to your research. Do you 'lurk' (listen in without participating)?
- Your research involves interviews with children under 5 years old. How do you ensure they are able to give informed assent?
- Your research has highlighted unethical practices in your organisation about the use of expenses claims. Do you report it?

(Adapted from Blaxter, Hughes and Tight (2001:159))

Blaxter *et al.* (2001) suggest that a common cause of ethical challenge is **conflicts of interest between the researcher and the researched**. The researcher may be excited about his or her research idea, and be keen to collect in-depth high quality data from those most closely affected by whatever they are researching. However, there is a risk that the researcher may be tempted to consider unethical research practice in order to try to obtain and/or retain some of the data.

Risks and responsibilities

It may be useful to think of ethical review in terms of a review of risks and responsibilities. The responsibilities lie firmly with the researcher; the risks can be on both sides. Researchers are **responsible** for causing something to happen in relation to the lives of the research participants, and they need to consider:

- the potential risks that they may be introducing; and
- how they as researchers will take responsibility for addressing these potential risks.
- The risks may be physical or psychological. The researcher is responsible for satisfying him or herself that:
 - the level of risk is justified by the importance and relevance of the research study;
 - the risk is unavoidable within the study's objectives;
 - in absolute terms, the level of risk is minimized;
 - participants are fully aware of the level and nature of the risk before they agree, freely, to take part in the study;
 - precautions are in place to deal adequately with the effect of participation.

The risks may be physical, but it is more likely that they will be psychological, and associated with such things as: discussion of sensitive topics; maintenance of confidentiality; stirring painful memories; disclosure of personal information; voicing of unwelcome opinion; and discomfort and uncertainty.

It might be thought that ethical issues relate predominantly to interview methods, where participants might 'open up' and perhaps say more than they had really wanted to or, when reflecting later, might be very unhappy about something they had said. But there are ethical judgements to be made in all research involving human participants, including questionnaire-based methods, research via electronic communication, and observational research.

A serious matter

Breaches of ethical guidance and codes, or significant deviations from the research proposal originally approved, may cause harm to your participant(s). In addition, these are considered serious matters within most Universities and the wider community.

Typical repercussions could be:

- failure at examination;
- removal of professional accreditation;
- refusal to publish results of the study;
- insurance being deemed invalid;
- removal of funding for research;
- damage to the academic and ethical reputation of yourself and the University.

Basic principles of ethical practice

1. Informed consent
2. There should be no pressure on individuals to participate
3. Respect individual autonomy
4. Avoid causing harm
5. Maintain anonymity and confidentiality
6. Take particular care in research with vulnerable groups

1. Informed consent

There should be informed consent from participants before they take part. This means that they should know exactly what they are being asked to do, and what the risks are, **before** they agree to take part.

An **Information Sheet** is commonly used to provide potential participants with information about the study. It should be written at the appropriate reading age for your specific group of potential participants. The following is useful general advice for the preparation of Information Sheets.

- Say who you are; where you are from; and what you are doing.
- Tell the person how/why they were selected to be invited to take part.
- Inform them that, even if they agree to take part, they can change their mind at any time, without giving an explanation.
- Tell them what they would be asked to do if they agreed to take part.
- Tell them the level of anonymity and confidentiality you can guarantee.
- Say what the information will be used for, how it will be stored, and how long it will be kept.

The storage of data will need to comply with existing National and/or International Data Protection Laws and codes.

A participant will normally be asked to sign a **Consent Form** to record informed agreement to take part. It is worth checking with your university/department whether any guidance has been prepared specifically about writing Information Sheets and Consent Forms.

2. There should be no pressure on individuals to participate

Incentives to take part should generally not be provided. If an incentive is used it needs to be only a token, and not enough to encourage someone to participate who would really prefer not to take part.

You should also not rely solely on the consent of gatekeepers, for example: parents, head teachers, heads of units. Their consent may be needed before you can approach their students/staff, but *individual* potential participants should also be fully informed, and should have the option of not taking part.

If a participant fails to complete and return a questionnaire, you need to know in advance what you will do. Will you make a follow-up request for its completion and return and, if so, how will this be worded? It is not good practice to pester people. A case would need to be made if you wanted to follow up non-responders.

3. Respect individual autonomy

Autonomy means the freedom to decide what to do. Even when someone has signed a Consent Form, they must be made aware that they are free to withdraw from the study at any time, *without giving a reason*. They must also be able to request that the data they have given be removed from the study.

You need to be prepared for this possibility, and to have plans for how you would remove the data already given, if this is requested. You would need to retain a link from any code or pseudonym that you use, back to the name of the individual, to enable you to carry this out. This link would need to be kept confidential, and separate from the data.

4. Avoid causing harm

The duty of the researcher is not to cause harm. Judgements need to be made about what are acceptable levels of harm: please see section above on risks and responsibilities.

5. Maintain anonymity and confidentiality

Making data 'anonymous' means removing the contributor's name. However, you will often need to take more than this basic step to protect a participant's identity. Other information can help to identify people, for example: job title, age, gender, length of service, membership of clubs, and strongly expressed opinions. The more pieces of information that are presented together, the easier it is to identify someone.

Organisations, units, and groups may also need their anonymity protected. Geographical information, combined with the type of organisation, can give away identity quite quickly. Take as many precautions as you can to protect anonymity, and only promise the level of anonymity that you can realistically provide.

'Confidentiality' relates to the protection of the data collected. Where the aim of your research is specifically to access private feelings, stories, and concerns, you will need to be clear about how the confidentiality of that data will be respected. Again, be clear about the level of confidentiality you can, and cannot, guarantee.

Is it sometimes OK not to be anonymous?

The notion that anonymity should be the default position is challenged in a useful article by Grinyer (2002). She suggests that in some research contexts, for example in oral history, it is possible that participants may be keen for their own voices to be acknowledged, and be happy to have their identity made known alongside their contribution to the research. A guiding principle is that participants need to be in control of the disclosure of their identity and their contribution.

6. Take particular care in research with vulnerable groups

Think about vulnerability in its widest sense. Care is clearly needed in research with young children, and with people who are ill, or recently bereaved. However, others may be vulnerable in certain contexts, for example: students; employees; dependents; or people with particular traits that could be subject to prejudice.

Research ethics review within the UK National Health Service

The Research Ethics Committee (REC) system that operates within the UK National Health Service (Department of Health 2005; National Patient Safety Agency 2007) is well established. A research proposal needs to be considered within the National Health Service system if it involves:

- “patients and users of the NHS. This includes all potential research participants recruited by virtue of the patient or user’s past or present treatment by, or use of, the NHS. It includes NHS patients treated under contracts with private sector institutions;
- individuals identified as potential research participants because of their status as relatives or carers of patients and users of the NHS, as defined above;
- access to data, organs or other bodily material of past and present NHS patients;
- fetal material and IVF involving NHS patients;
- the recently dead in NHS premises;
- the use of, or potential access to, NHS premises or facilities;
- NHS staff – recruited as research participants by virtue of their professional role.”

An important point to note here is that research on NHS staff, not just patients, is included within the remit of the NHS ethics review process, and cannot be considered solely within the University’s system. For guidance on how to proceed if your research falls into any of the above categories you can consult the website:

www.nres.npsa.nhs.uk

Research ethics review within the University of Leicester

Other research involving human participants can be taken through the ethics review process within the University. The level of review will match the level of potential harm identified. Most student studies will be considered *minimal risk* and can therefore be considered solely by a Departmental Ethics Officer (DEO).

If your proposal is judged to have more than *minimal risk*, the DEO will judge whether he or she can review the application, or whether the application needs to be passed to a Departmental or Faculty REC for closer consideration. This simply means that it concerns particularly sensitive issues and needs more in-depth ethical review by a committee. It does not mean it is badly planned or that it cannot go ahead.

It is important to identify as early as possible whether your research is likely to need the attention of an Ethics *Committee* as well as an Ethics Officer. The committees meet on set dates only, and you will need to allow for this in your research timetable.

Research that would normally be considered to involve more than *minimal risk* include the following:

- research involving vulnerable groups – for example, children and young people, those with a learning disability or cognitive impairment, or individuals in a dependent or unequal relationship;
- research involving sensitive topics – for example participants' sexual behaviour, their illegal or political behaviour, their experience of violence, their abuse or exploitation, their mental health, or their gender or ethnic status;
- research involving groups where permission of a gatekeeper is normally required for initial access to members – for example, ethnic or cultural groups, native peoples or indigenous communities;
- research involving deception or which is conducted without participants' full and informed consent at the time the study is carried out;
- research involving access to records of personal or confidential information, including genetic or other biological information, concerning identifiable individuals;
- research which would induce psychological stress, anxiety or humiliation or cause more than minimal pain;
- research involving intrusive interventions – for example, the administration of drugs or other substances, vigorous physical exercise, or techniques such as hypnotherapy. Participants would not encounter such interventions, which may cause them to reveal information which causes concern, in the course of their everyday life (ESRC 2005:para 1.2.2).

Concluding comments

Research entailing ethical risk is spread across many fields, and the potential for harm may not necessarily be immediately apparent.

The default position needs to be that you consider *all* research involving human participants to be *potentially* ethical challenging.

It is important to be honest in completing the ethics form. It is far better to point out a potential ethical problem, and say what you intend to do about it, than to ignore it. The main research ethics skills you need are:

- to be able to **identify the ethical issues** within a research proposal; and
- to know **how to address them**.

References and professional guidance

1. Association of Social Anthropologists ethics guidance. Found at: www.theasa.org/ethics/guidelines.htm
2. Blaxter L., Hughes C., & Tight M. (2001) 2nd edition. *How to research*. Chapter 6: 153-191. Buckingham: Open University Press.
3. British Education Research Association guidance. Found at: <http://www.bera.ac.uk/publications/>
4. ESRC (2005) *Research Ethics Framework*. Swindon:ESRC.
5. Grinyer A. (2002) The Anonymity of Research Participants: Assumptions, Ethics and Practicalities. *Social Research Update*: Issue 36. University of Surrey.
6. International Council for Museums Code of Ethics for Museums. Found at: <http://icom.museum/ethics.html#intro>
7. Museums Association Code of Ethics. Found at: <http://www.museumsassociation.org/ma/10934>
8. National Research Ethics Service; National Patient Safety Agency (2008). Found at: www.nres.npsa.nhs.uk
9. World Archaeological Congress Code of Ethics. Found at: http://www.worldarchaeologicalcongress.org/site/about_ethi.php

Preparing for your viva

Aims and objectives

This guide addresses the period between the submission of your thesis and the day of your viva. It offers ideas to help you perform calmly and confidently in your oral examination.

Introduction

So far you may have focussed primarily on writing your thesis: making sure it was in good shape before submitting it. Handing in your finished thesis is a massive achievement, and is the first step in the concluding stage of the PhD process.

Attention now turns to the viva. Most students are concerned about whether they will be able to perform well. Although it may feel like a completely new challenge, you will already have done more preparation than you realise. You may have presented some work at a conference or an in-house seminar, and been asked challenging questions. A neighbour, relative, or friend may have asked what research are you doing at the moment? And why?

This guide aims to take the mystery and fear away from the viva process, and to support you in preparing methodically so that you can look forward to a positive experience.

What is a viva?

The viva has its own ceremony and tradition. It can be considered part of a rite of passage in your academic apprenticeship, a trial to be addressed confidently, and the gateway to joining the academic community as an independent teacher or researcher. It may be more helpful to think of it simply as the verbal counterpart to your written thesis.

The **viva voce**, shortened to the word '**viva**', is:

'an oral examination, typically for an academic qualification', derived from the Latin: 'with the living voice' (Ask Oxford 2006).

Your thesis demonstrates your skill relating to the written presentation of your research. In the viva you will demonstrate your ability to participate in academic discussion with research colleagues: 'with the living voice'.

Its purpose is to:

- confirm that the thesis is your own work;
- confirm that you understand what you have written;
- investigate your awareness of where your original work sits in relation to the wider research field;
- provide a developmental opportunity for considering future publication and research options.

This guide takes you through six stages of preparation for the viva and its outcome:

Stage 1: You have submitted your thesis

Stage 2: Stepping back from the detail

Stage 3: Returning to the detail

Stage 4: The last few days

Stage 5: Within the viva

Stage 6: The outcome of the viva

Stage 1: You have submitted your thesis

This is the culmination of all your effort so far. How are you going to celebrate? You may now have time to catch up with people you have neglected, and with activities you have neglected, preferably enjoyable ones, not just the housework!

It may then be helpful to assess your time commitments over the next few months so that you can build in adequate time to prepare for your viva.

- Aim to establish the date for your viva as soon as you can. This may be a few weeks away, but is more likely to be several months hence. You also need to know the time and the venue.
- Confirm who has been appointed as examiners. There will usually be one internal and one external examiner, but there may well be more. This may be due to the relative inexperience of the chosen examiners, or because your area is interdisciplinary and more than two examiners are required to form an academic judgement.
- Work out a timetable for viva preparation. You need to remain engaged with your thesis, but this is a time to step back from the detail.
- Talk to your supervisors about whether it would be useful for you if one of them was to be present at your viva. A supervisor may be present but would not usually participate.
- You may want to use some of the time to work on articles or conference papers from your research.

Stage 2: Stepping back from the detail

Examiners are likely to ask you to comment on the wider implications of your work, so take time to think more broadly about your research. You may wish to use the following questions to help you prepare for discussing these issues in your viva.

- Which overarching philosophical or theoretical assumptions have you been working within? Why? How did it work out?
- If you were given a block of new funding now, how would you like to follow up your work?
- Thinking about your examiners: what links their work with your own research? Have you got hold of some of their published work to get a feel for how they work and how they discuss research?
- What would you do differently if you were starting again?
- What has been happening in your field since you did your research? Is a further literature review necessary? How does your research fit into this updated context?

Stage 3: Returning to the detail

Your aim is to know your thesis very well and to be calm and confident as you begin your viva. Remember that most students who reach this stage do succeed in gaining their PhD. Here are some ideas to help you regain and retain familiarity with the detail:

- re-read your thesis carefully. If you notice any mistakes, don't panic. Make a note of them so that it won't be a surprise to you if they are mentioned in the viva, and so that you can address them when you are making your final corrections following the viva;
- as you read, make summary notes on the main points on each page;

- print out the contents pages with plenty of spacing, and write very brief summaries of the content under each heading;
- practise telling the story of the whole research in 2 minutes;
- practise telling the story of different chapters, each in 2 minutes;
- identify areas of weakness and make notes on each;
- identify the elements of originality in your thesis;
- identify your contribution to knowledge;
- identify the theoretical, research, and practical implications of your findings.

You are not expected to memorise your thesis. You can take it into the viva with you, and it is acceptable to refer to it to remind yourself of specific details. However, it will not impress the examiners if you flick forwards and backwards trying to find what you are looking for. Some people choose to use small 'post-it notes' to attach to the top of pages they think they might want to refer to so that they can locate them quickly and easily if needed.

Mini viva

You need to practise answering viva questions. A list of typical questions is provided towards the end of this guide, and you can add to this yourself. Make sure you include the difficult questions so that you have a chance to practise how you might answer them.

Some form of mini viva is essential, but there are various ways of conducting this: from the formal to the informal, from public to private, depending on what you would find most useful. The important thing is to answer out loud not just in your thoughts. This can be done in a formal setting with an audience of your supervisor or colleagues, but can also be done in private while walking round a garden or park, or in your room. In speaking aloud you force yourself to put your responses, clarifications, and deliberations into words. Initially this can feel embarrassing, stressful, and difficult, but it is invaluable preparation for arguing your case coherently on the day.

Stage 4: The last few days

This is the time to address practical details.

- How will you get to the viva in good time?
- When/what will you eat and drink, both before and after?
- What will you wear? Ideally something that allows you to feel both smart and comfortable.
- What will you take into the room with you?
- Have you sorted out some calming activities to dispel nervousness?

Think positively. You may now be:

- anticipating a potentially interesting discussion;

- ready to engage in debate;
- confident in your preparation;
- eager to get on with it;
- relieved at being there at last;
- excited at the challenge ahead;
- looking forward to completing the process.

Stage 5: Within the viva

How will my examiners behave?

Your study will have strengths and weaknesses, and the examiners will want to discuss these. It is considered positive, indeed essential, that you can discuss both strengths and weaknesses. You could think of these weaknesses as an opportunity to demonstrate your skill at critical appraisal. Examiners will seek to find and discuss weaknesses in all theses. You should not interpret criticism as an indication that you will not get a positive outcome.

Examiners have different personalities, styles, and levels of experience. Sometimes a candidate may feel that a challenge has been made in a confrontational way. Experienced and effective examiners will not be inappropriately confrontational, but some personalities are more prone to such approaches. It is important that you do not take offence. A relaxed, thoughtful, and non-confrontational response from you will help re-balance the discussion.

Murray (2003:105) suggests how *not* to respond to a challenge of a weakness in your research. She suggests that you do not:

- give a general, resigned declaration that ‘this happens in every study’;
- blame your supervisor for the weakness;
- blame your data;
- say ‘that was beyond the scope of my study’, without giving a cogent argument to support the statement;
- dismiss what is identified as a weakness as unimportant.

A better approach is to:

- take time to consider before replying;
- remember to breathe and to speak reasonably slowly;
- don’t take criticism personally;
- don’t take offence;
- don’t get angry;
- enjoy the opportunity to talk about your research.

The questions that crop up in vivas can be grouped under four basic headings.

- What’s it about?
- What did you do?

- What did you find?
- Why does that matter?

Practising answering these four questions will take you a long way in your preparation. The questions below all fall within these four, but are more specific, and are arranged following the order of a typical thesis.

General questions

- Why did you decide on this particular research question?
- What have you found the most interesting aspect of your research?
- How did your thinking about this topic develop as you went through this research process?
- Now that you have finished the research, which part of the process would you say you enjoyed the most, and why?
- Were there any surprises along the way?
- How did doing this research change you as a researcher?

Context

- You refer to ... as a key influence on your research. Can you summarise the particular relevance of their work?
- What developments have there been in this field since you began your PhD? How has this changed the research context in which you are working?
- You make only passing reference to the field of ... why do you think that field is less relevant than the others you give more space to?
- You don't say much about the ... theory in your thesis. Can you explain why you have not focussed more on that?

Methods

- How well did the study design work in practice?
- Did you have any problems with the data collection process?
- You used an existing research method and developed it further. Can you tell us why this further development was needed?
- What were the main ethical issues of conducting this research?
- How did you establish the limits around the scope of your data collection?

Analysis and findings

- Talk us through your method of analysis.
- Did you encounter any problems with applying this method of analysis?
- Do you think the data you collected were the most appropriate to answer your research question, or are there any other data you would have liked to have collected?
- Can you describe your main findings in a few sentences?

Discussion

- If you were starting your research again now, are there any changes in the way you would plan it?
- You interpret these findings as . . . Do you think there could be an argument for interpreting them as . . . instead?
- You said in your thesis that . . . Can you expand on that point?
- In what way do you consider your thesis to be original?

Conclusion/implications

- What are the research, practice, theoretical implications of your findings?
- How would you hope that this research could be followed up and taken further?

Stage 6: The outcome of the viva

Most people who reach the stage of the PhD viva will gain their PhD. However, it is very rare that a thesis will be passed without any changes being required. Almost everybody is asked to make minor or major amendments. Having got this far do not give up: the end is in sight.

The recommendations available to examiners at the University of Leicester are shown in Table 1, below.

Recommendation	How likely is this?	What you need to do
Immediate award of the degree without any changes being made to the thesis	Although this is possible, it is very rare	No further work needed
Award of the degree subject to minor amendments	This is a common result	Amendments to be made and submitted to the internal examiner within one month
Award of the degree subject to amendments	This is a common result	Amendments to be made within six months to the satisfaction of the internal and external examiner
Revision of the thesis and a requirement to resubmit	You may feel disappointed with this result but it is not uncommon and the vast majority of students go on to resubmit successfully	You may be required to rewrite substantial parts of the thesis and the revisions needed are not minor
Revision of the thesis and the requirement to resubmit for a lower degree	This happens rarely	Amendments need to be made as required for submission for lower degree
Award of a lower degree with or without minor amendments	This happens rarely	Amendments need to be made as required for submission for lower

		degree
Thesis failed with no right of resubmission	Very rare	

Table 1: Possible outcomes of the viva at the University of Leicester

You may well take away from the viva a mix of positive and negative feelings. You may feel positive because you have passed the viva, but you may also feel negative because there is further work to be done on the thesis.

Don't be surprised if you have some feeling of an anti-climax. Almost all candidates will have further work to do. You can be assured that getting through the viva is in itself something to celebrate.

Summary

- Remember to celebrate the submission of your thesis.
- You began preparing for your viva as soon as you started explaining your research to others.
- Find out your viva date and plan backwards from this in stages, with the aim of giving yourself time to think about your overall view of your work, as well as time to review the detail.
- Create a list of viva questions, including tricky ones, and practise answering them aloud, rather than just in your head.
- Aim to feel calm and well-prepared as you begin your viva. Remember not to take offence at any questions that seem confrontational.
- As well as preparing for celebration, be prepared for a feeling of anti-climax, especially as there is likely to be some re-writing to do.
- The vast majority of people who reach their viva will gain their PhD.

References

1. Ask Oxford (2006). *Found at: <http://www.askoxford.com/>*

Useful reading

1. Murray, R. 2003: *How to survive your viva*. Maidenhead:Open University Press.
2. Rugg, G. & Petre, M. 2004: *The unwritten rules of PhD research*. Maidenhead:Open University Press.
3. Tinkler, P. & Jackson, C. 2004: *The doctoral examination process: a handbook for students, examiners and supervisors*. The Society for Research into Higher Education. Maidenhead:Open University Press.
4. Wellington, J., Bathmaker, A., Hunt, C., McCulloch, G. & Sikes, P. 2005: *Succeeding with your doctorate*. London:Sage.

