

6

Reading and searching for information and seeking advice

Chapter overview

This chapter examines the information you will need to successfully navigate a post-graduate learning journey. It includes:

- Accessing the literature:
 - what and how much to read
 - tools you need to help focus your reading
 - tips for reviewing literature.
- Using online bibliographic databases to help tailor your searches.
- Citation reports and impact factors.
- Types of literature and their strengths and weaknesses.

In order to successfully conduct any project or research work, we must access various information sources and report upon the data collected from them. The most obvious and commonly accessed source of information is that provided through published (written) research and professional literature. Effectively drawing upon this resource to add value to project or research work can be time-consuming unless a methodical approach is used. Sally Rumsey (2004: 2), a librarian with substantial experience of accessing and using research literature and other forms of information, provides a useful framework with which to access information sources:

- Analyse the question or problem.
- Define the scope of the research – detailing what information is required.
- Identify the key sources of that information.

- Establish where that information is located or stored.
- Gain access to the information.
- Ensure, through relating it to your research question or problem, that the information you retrieve is (a) required, (b) reliable, and (c) current (if this is important to your work).
- Make sure that searches and results are effectively managed and stored.
- Ensure you maintain the currency of your information trawl by keeping it up to date.

Accessing literature

Accessing and reading literature forms a substantial part of postgraduate study. An integral part of any postgraduate research process is the ability to read, assess, synthesise and evaluate published work in the field. As research outputs – and particularly publications such as journal articles, books, research and government reports – become even more important indicators of research competence, it is crucial to be aware of what is being published in your field or area of study. To do that you need to read.

USING THE LIBRARY AS AN INFORMATION SOURCE – WHAT YOU SHOULD KNOW

- Most universities employ a number of subject area librarians. Find out the names of yours and get in touch with them to tell them of your work and ask how they can help you (see how useful this was for Peter's work, below).

When I started my postgraduate programme, I didn't really know what literature was available in my field of study. I knew the library had huge stocks of educational journals, databases and texts, but I didn't know how to deal with all of these in a structured way. The subject librarian was extremely helpful with this. She asked me quite a lot of questions initially about what I was doing in my project work and

(Continued)

(Continued)

the information I had already consulted. She suggested that I speak to some colleagues in another department, who had sought similar types of information from the subject librarian (I linked up with these shortly after my library visit and secured access to the literature they had already collected). We spent some time querying a range of databases, including Zetoc and the Web of Knowledge. I was able to quickly obtain (using some of the tips and shortcuts suggested by the librarian) a great deal of key material through this exercise. I think I saved quite a few days work there!

Peter, PhD Student, University of Oxford.

- Find out the loan and other entitlements. The 'Issues desk' staff or your colleagues within your department should be able to tell you this information.
- Obtain a library card so that you can access the library.
- Make sure you have the relevant usernames and passwords if you wish to access online or electronic resources. Some of these are now standardised (so that you'll only ever need one login), but many are not, so be prepared to make a note of them.
- Find out what inter-library loan facilities are available at your institution (how many books etc. can you borrow from other libraries? Do other university libraries have reciprocal arrangements with yours? How much does it cost to request documents from other libraries if they are not available at your own).
- Note the opening times for your campus libraries. Some now open well into the night during term time, and often at weekends. Make sure you know the latest time you can take a book out of the library on an evening (some institutional libraries now provide a self-service facility).
- Check what facilities and/or services are available through your library. For example, check the databases to which the institution subscribes and any training it offers, such as literature reviewing or using bibliographic data management tools.

WHAT AND HOW MUCH TO READ

What you should read can encompass a wide and varied area if your research work impacts upon, or is associated with, a range of themes or issues. A useful starting point to assist with a more focused exploration of literature may be to seek the guidance of your research supervisor or course/programme tutor. As established experts in the exercise of reading and using the literature, these informants will be well placed to guide you to at least some of the useful and authoritative literature sources in your field. Postgraduate colleagues may also be able to steer you to suitable and relevant literature. Through your networking efforts with such colleagues, they will become aware of your areas of interest and may well suggest materials, journals and texts that they have found particularly useful.

TOOLS YOU NEED TO HELP FOCUS YOUR READING

It is clear that the amount and type of literature you can consult and draw upon for your studies/research investigations is immense. There are tools and techniques you can use to help manage this and prioritise the material you consult. Such tools can effectively be used to assist with the first-level evaluation of literature that you may be considering using for your research or project work.

Academic journal articles are by far the most popular literature sources for researchers and academics. However, such sources can vary considerably in the quality of material they contain. In addition to the peer review procedures that almost all articles undergo (a process whereby other researchers and academics review and comment upon work to establish its worthiness for publication), there are journal rankings which assign quality indicators to published material. Journal ranking in its most simple form operates through the recommendation of others – your supervisor or tutor may identify certain journals in your area as prestigious in the field. Reading articles in such journals ensures you are reading high-quality literature.

More elaborate journal rankings have been developed that explore the number of citations received for articles within a journal in any one year. The rationale behind this ranking procedure is that the more frequently articles within specific journals are cited, the more popular and widely read (and therefore respected) these journals are. This approach to ranking journals is not without its critics, but it is broadly accepted in academia as a useful way to identify top journals in a given field, and the high-quality articles within them.

Journal Citation Reports®

Journal Citation Reports (JCR)® presents quantifiable statistical data that provides a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

Features

- Covers more than 7,500 of the world's most highly cited, peer-reviewed journals in approximately 200 disciplines.
- Offers access to citation statistics from 1997 onwards.
- Enables users to sort data by clearly defined fields: impact factor, immediacy index, Total Cites, Total Articles, Cited Half-Life, or Journal Title.

The JCR® is available in two editions: the Science Edition covers over 6,100 leading international science journals from the ISI database; the Social Sciences Edition covers approximately 1,800 leading international social sciences journals from the ISI database.

Intended users

Enables a variety of information professionals to access and assess key journal data:

- *Librarians* – helps users manage and maintain journal collections and budget for subscriptions.
- *Publishers* – enables publishers to monitor their competitors, identify new publishing opportunities, and make decisions regarding current publications.
- *Editors* – assists in assessing the effectiveness of editorial policies and objectives, and tracking the standing of their journals.
- *Authors* – enables authors to identify journals in which to publish, confirm the status of journals in which they have published, and identify journals relevant to their research.
- *Information analysts* – lets users track bibliometric trends, study the sociology of scholarly and technical publication, and study citation patterns within and between disciplines.

Formats and delivery options

Web – via JCR® on the Web; published annually in the summer following the year of coverage.

(Continued)

CD-ROM – via JCR® on CD-ROM; published annually in the summer following the year of coverage; networking options available.

Source: <http://www.isinet.com/products/evaltools/jcr/>

The Institute for Scientific Information's (ISI) Journal Citation Report® (JCR®) is the most widely used international journal ranking service. It ranks over 7,500 journals across a broad range of subject or discipline areas. For example, the 'Social Work' area ranks 29 journals from across the world that publish in this area. Within the broader and more active subject area of 'Management', there are 67 journals for which data are consistently collected, including the number of papers or articles published and the associated citations of those papers or articles. Essentially, the higher the number of citations received for articles from a journal, the higher its importance, or 'impact factor', is deemed to be. A journal's 'impact factor' is determined by dividing the number of recent articles by citations received for those articles within the year. Take a look at the following two examples:

Journal Citation Reports®

Journal title:	<i>Advances in Nursing Science</i>
Citations received for recent articles:	65
Number of recent articles:	40
Impact factor (65 divided by 40):	1.625

Journal title:	<i>American Journal of Nursing</i>
Citations received for recent articles:	52
Number of recent articles:	269
Impact factor (52 divided by 269):	0.193

Source: ISI Journal Citation Reports® (<http://www.isinet.com>).

The second journal of the two certainly publishes far more papers or articles than the first journal, but the citations for those papers are far less. As a result, the impact factor is also far less. The above analysis shows that more academics, researchers and commentators refer to pieces in the first journal than in the second

one. As a result, the first journal, using this operation, is deemed to contain more relevant and significant material than its comparator.

In addition to selecting journals and articles to read by the total number of citations they have received, you can also use similar services for individual writers or academics in that field. ISI's HighlyCited.com Researcher's service collects citation information across 21 broad subject categories in Life Sciences, Medicine, Physical Sciences, Engineering and Social Sciences. From this information (collected over a period of 20 years) it then produces lists of leading academics (based upon citations received) in those subject areas. This may be a useful way to identify important writers in the broad subject areas defined by the service.

ISI HighlyCited.com reveals the face of research – the people behind the accomplishments in 21 broad subject categories in Life Sciences, Medicine, Physical Sciences, Engineering and Social Sciences. These individuals are the most highly cited within each category for the period 1981–1999, and comprise less than one-half of 1% of all publishing researchers – truly an extraordinary accomplishment.

ISI HighlyCited.com will grow to include in each of 21 subject categories the top 250 pre-eminent individual researchers who have demonstrated great influence in their field as measured by citations to their work – the intellectual debt acknowledged by their colleagues. The information for each researcher is as follows:

- Biographical information: education, faculty and professional posts, memberships and/or offices, current research interests, and personal websites.
- Full listing of publications: journal articles, book or book chapters, conference proceedings, websites and other internet resources.
- Bibliography enhanced by links to the full bibliographic information indexed in the ISI Web of Science. ISI HighlyCited.com: (<http://www.isinet.com>)

ISI's Journal Citation Reports® and their HighlyCited.com authors service enable you to search large databases of thousands of journals and millions of journal articles or papers. Depending on the access to the service your university library subscribes to, you can often secure direct electronic access to the papers and/or journals cited. There is, however, a caveat to this. Most of the services provided by ISI were originally developed for the Sciences and Engineering disciplines. This is, therefore, where materials are strongest, holding many of the journals within their lists, and the majority of the millions of articles, records and references. However, these services are continually evolving, and the Social Sciences are developing into substantive databases that are used as reference points by many academics and researchers.

As you investigate and explore the literature available in your discipline or subject area, you will become aware of the most prolific authors. It may be useful to

explore other work published by them across a range of journals or related subject areas. A number of bibliographic databases enable you to search for material by author, including the British Library database, Zetoc (<http://zetoc.mimas.ac.uk/>) and ISI's Web of Science service (<http://wos.mimas.ac.uk/>).

The Zetoc service provides Z39.50-compliant access to the British Library's Electronic Table of Contents (ETOC). The database contains details of approximately 20,000 current journals and 16,000 conference proceedings published per year. With around 20 million journal and conference records, the database covers every imaginable subject in science, technology, medicine, engineering, business, law, finance and the humanities. The database covers the years from 1993 to date and is updated daily. A list of journal titles covered by the database is available. Copies of all the articles and conference papers listed on the database can be ordered online from the British Library's Document Supply Centre in Yorkshire.

Eligibility

Zetoc is made available to institutions through MIMAS (Manchester Information and Associated Services) at the University of Manchester, on behalf of the British Library. It is free of charge to JISC-sponsored UK further and higher education institutions. Zetoc: (<http://zetoc.mimas.ac.uk/about.html>)

A simple search within the author field of the Zetoc database for work published by Tony Bowers, an expert in the field of special educational needs, returns a large number of records. Some of these records relate to other authors with the surname and initial 'Bowers T', but examining the content (title, abstract, etc.) of these returns to determine material within the general content areas of educational studies and special educational needs reveals articles and papers he has published in relation to his work on the special educational needs Code of Practice.

When you have identified an author who writes about the subject you are interested in, it's worth a quick scan of his personal or institutional website. You can often have the inside track on a lot of material listed that is still being developed. If the academic or researcher concerned keeps their site up to date (which isn't always the case!), you can collect some focused pieces of work using this approach.

Ian, ESRC 1 + 3 student, University of Manchester.

As Ian indicates above, once leading writers have been identified, it can be very useful to explore their websites (most journal articles will have contact details, including email, for the writer concerned). A growing number of researchers and academics now detail their complete publication lists on their websites, with many providing hyperlinks to downloadable draft or complete copies of papers.

TIPS FOR REVIEWING LITERATURE

A literature review enables a researcher to accomplish a number of more specific aims. It is likely, for example, that in the early stages of your research you may have only a vague idea of the area you would like to explore more fully. You may have only a tentative outline of your research problem. This should not give you cause for concern. A review of the literature will help you to sharply focus your tentative problem by both limiting and more clearly defining the topic you are interested in researching. Look out for recommendations made by researchers for those intent on continuing with research in a particular field. You may be provided with advance warnings of possible pitfalls, or research questions which have been thus far neglected. Reading around the subject will help you to distil the issues you wish to concentrate upon and leave you with a concise, detailed and distinct plan of action. (Birmingham, 2000: 27)

The 'literature'

Accessing and reading the literature in your field of enquiry helps you to flesh out your ideas. You can find out what else has been done, by whom and where. By drawing upon the work of others, you can explore your own ideas and locate them in an academic context.

Peter, PhD student, University of Oxford.

Without doubt, the essential sources of your reading and information relating to your chosen research/study area will be the published, usually research-based, literature, including journal articles, textbooks and monographs. However, there are many other literature sources you may wish to consult, so the sheer variety and volume of material available can make evaluating the multiple formats and their

contents difficult. Nevertheless, there are a range of factors that can assist in the identification of typical strengths and weaknesses of standard literature formats.

BOOKS

Books come in many shapes and forms, and the quality of their content varies considerably. There are essentially three broad types of book: the textbook, the research book and the edited book. Textbooks are usually based upon the expertise of the author, containing some reference to research and the experiences of the writer (perhaps through teaching the subject). Research books report upon an area specifically investigated for the purposes of the text. As such they tend to be more focused and exploratory than textbooks. Edited books usually consist of a collection of pieces (written by a variety of authors) drawn together by a common theme or issue. Whilst it is the role of the editor of the volume to draw together the many different pieces within the text, quality and consistency can sometimes vary considerably within the chapters of the text.

Most books, prior to publication, undergo some form of peer review process. The larger and more established academic publishers, such as Sage, the Open University Press, Routledge, Oxford University Press and Cambridge University Press, etc., commission academics and other experts to review draft chapters and materials, and employ copy-editors and proof-readers to ensure quality and consistency. When evaluating books to assess their relevance and use for your own research or project work, consider the expertise of the author (has he or she published other material in this area?); consider the data or arguments upon which the text is based (are the arguments backed up by relevant research data); consider whether others (such as tutors, supervisors or other postgraduates) quote this work.

JOURNAL ARTICLES

Journal articles are by far the most accessed forms of literature. Journals, and the articles published within them, can also vary in their quality. The Journal Citation Report[®] provides one way of assessing the quality or value of journals and their content, but there are other approaches to assessing journal and article quality. Most academic journals have panels of experts (usually academics) who review and approve the material for publication. Details of these 'peer review' panels can be found on the inside cover of the journal. They are termed 'peer review' panels as they consist of fellow academics and researchers (your peers) from your own and other institutions. A useful assessment tool for postgraduates accessing any journal might be:

- Do you recognise any of the experts on the peer review panel?
- Are you aware of their work in the field?
- In your opinion, are they well-placed to comment upon the material published in the journal?

Editors of journals often have the final say regarding the publication or rejection of journal articles. Further evaluation considerations may therefore include:

- Do you recognise the editor?
- Have you read any of his or her work?
- Do you consider him or her to be an expert within the broad subject area of the journal?
- Is the editor affiliated to or associated with a respected university school or department?

If the editors are any of the above, does that suggest to you that these are good quality journals? Speak with your tutors or supervisors to obtain their views on the leading journals; ask them what criteria they use to assess quality?

CONFERENCE PAPERS

The conference paper is often a journal article in its preliminary or draft form. Conference papers often present initial ideas and the emerging formulations of 'theory' not yet fully tested by research data. As a result, they should be used with some degree of caution. That is not to say that they should be dismissed as of no value. A good number of conference papers afford you access to 'new' ideas that are closer to the research than their journal article superiors. Through accessing conference papers you may become aware of emerging difficulties or successes in your area of study. You may be directed to new avenues of investigation that your analysis of journal articles has not revealed.

MONOGRAPHS

Monographs are sometimes referred to as 'short books'. Typically, within universities, monographs are short pieces focused around a specific subject or issue. Size varies according to subject matter, although around 50 or so pages is a reasonably sized monograph. They are usually produced and published 'in house' (i.e. by the institutional employer of the author – usually a university), and for a number of

novice researchers and academics the monograph is their first opportunity to experience publication of their work. In terms of assessing or reviewing the work published, a number of institutions expect supervisors or colleagues to comment on the content of the monograph prior to publication. However, as this is not a consistent practice across all institutions, care should be taken when referring to pieces produced by junior members of academic staff. A number of the assessment criteria outlined above can equally be applied to monographs.

THESES

A thesis is typically a report detailing the results of an original investigation. They are usually submitted in part-fulfilment of Masters/PhD programmes of study. Length and style of theses are dictated by the university making the award and the quality of content is assessed by a panel of academics – these are helpful quality indicators for postgraduates wishing to cite material published within them. As a result of their *detailed* examination of a topic or issue, theses provide excellent background material relating to specific areas of study. Good publications of this type provide a focused examination of the issues within a specific area. They provide a full description of what was known about the subject previously (within a literature review) and a full account of new investigations. They also analyse these results with reference to previously published materials, and they make conclusions and recommendations based upon their analyses.

NEWSPAPER/MAGAZINE ARTICLES

Newspapers and magazine articles can provide an interesting source of reference material or data for your research/project work. However, they tend to be written in a less objective way than the other forms of literature previously discussed. The review process is less rigid for this type of publication. Newspaper and magazine articles are often written for a more general readership, rather than those engaged in academic research, and can therefore appear superficial in their discussion of issues or subjects relevant to your own work. However, they are often topical (as a result of the frequency of publication – daily, weekly, monthly, etc.) and can assist with locating research within a practical/relevant context.

WEB-BASED LITERATURE

Web-based literature includes almost anything that a reasonably IT-literate individual can upload on to a website. As a result, the quality and content of material

collected through the internet can vary considerably. For a great deal of the material available, there are no mechanisms to review or validate the content. Typical questions to consider when evaluating web-based material might include:

- Who hosts or coordinates the website where the material is found?
- In what capacity is the author writing – is it a personal piece, or affiliated to an organisation or institution?
- Is the piece written in an acceptable academic way?
- Do others reference this web-based material?

For many postgraduates, accessing and fully utilising the research literature is a daunting exercise. Kelly, a postgraduate researcher from the University of Manchester, indicates that using literature for postgraduate study involves a much more proactive and systematic approach to data collection and synthesis. She offers the following advice to fellow researchers.

I suppose it's small things really, like keeping up to date with academic journals, etc. What I tend to do is to go on to one of the online databases (such as Web of Science or Zetoc) and search for key words associated with my subject area. Obviously, you can do this by date range – so you could look for more recent stuff, or material published quite a while ago, or in a specific year that is important to your work. Some of what you read might not be useful but at least you will become more knowledgeable of what material is out there.

Kelly, ESRC 1 + 3 student, University of Manchester.

Keeping track

Given the huge range of materials and resources you can access as part of your studies, it is essential that you keep clear and thorough notes of the information you have consulted. University or subject librarians should be able to offer assistance and suggestions on appropriate forms of record keeping for your discipline area. There

are also several computer-based bibliographic tools to help you construct a database of your literature sources. The most popular packages for this are Endnote and Reference Manager. Many university libraries or IT departments support at least one of these packages, so it might be worthwhile exploring this before you purchase any software for yourself. A standard form of record keeping for literature items includes the following (a sample record, using this format, is also provided):

Name The name(s) of the authors of the piece – surname first, then initial(s).

Title The title of the literature – for example, the book, chapter, article, or research report.

Date The date the literature was published, and the edition if given.

Publisher The name of the publisher and place of publication if the literature is a book or report.

Name The name of the book or journal that the literature piece was taken from and page numbers if a journal article or chapter is within a book.

Location The location of the literature, so that you can consult it again if need be. Usually, this would include a catalogue number/library reference and the ISSN or ISBN (unique identifiers for all journals and books which are found on the back cover of books and inside cover of journals).

Sample literature record

Name	Ramsden, B.
Title	Academic staff: information and data
Date	1996
Publisher	Society for Research into Higher Education/The Open University Press
Name	<i>Working in Higher Education</i> . Rob Cuthbert (ed.), pp. 23–33
Location	Main campus library 'University' section. ISBN 0335197213

Reference list and useful reading

Birmingham, P. (2000) Reviewing the literature, in D. Wilkinson (ed.), *The researcher's toolkit: the complete guide to practitioner research*. London: RoutledgeFalmer. pp. 25–40.

Burns, T. and Sinfield, S. (2003) *Essential study skills: the complete guide to success at University*. London: Sage.

- Clough, P. and Nutbrown, C. (2002) *A student's guide to methodology*. London: Sage.
- Phillips, E.M. and Pugh, D.S. (2003) *How to get a PhD: a handbook for students and their supervisors*. Third edn. Buckingham: Open University Press.
- Potter, S. (2002) *Doing postgraduate research*. London: Sage.
- Prior, L. (2003) *Using documents in social research*. London: Sage.
- Rumsey, S. (2004) *How to find information: a guide for researchers*. Maidenhead: Open University Press.
- Wisker, G. (2001) *The postgraduate research handbook: succeed with your MA, MPhil, EdD and PhD*. London: Palgrave.