DOING A LITERATURE REVIEW

3

LEARNING OBJECTIVES

After reaching this chapter you will be ask to:

- To appreciate what a literature review in management research entails and why it is necessary.
- To be able to understand and evaluate different sources of information.
- To know how to conduct and write literature reviews.

INTRODUCTION

This chapter considers how one can discover what is already known about a particular field of study and how this information can help with one's own research. It deals with published texts such as books and journal articles, and also how knowledge can be gained from other communities of practice such as consultants and official bodies. It is important for (management) researchers to be familiar with a range of perspectives and sources, whether these are internal or external, public or private.

The first part of this chapter reiterates the importance of being familiar with the literature in the researcher's field of study. The second part outlines how to get access to the information required and how undertake a bibliographical search to find the data needed for a literature review. The third part discusses how the material collected can be recorded and organised and the electronic aids that have emerged to assist in this. The fourth part indicates how search activity might be framed, using examples from a systematic review, while the final part offers some conclusions and tips for undertaking a literature review.

WHAT IS A LITERATURE REVIEW?

Reviewing the literature is a research activity all in itself and a contribution can be made to knowledge on a particular subject through the literature review. It is not unusual to see published reviews of literature, notably in journals such as the *International Journal of Management Reviews*, *Academy of Management Review* or *Psychological Review*, that act as invaluable resources for those wanting to gain an overview of existing studies in a particular field. Literature reviews undertaken as part of a thesis invariably focus on the topic that relate to the main research questions that have been raised and highlight the influential conceptual or empirical studies that have been conducted in the field.

As indicated above, a literature review demonstrates knowledge about the extant literature of the field, but it is more than simply describing other authors' perspectives, it is expected to include a critical evaluation of those studies. A good review, furthermore, gives a novel synthesis of existing work, which may lead to new ways of looking at a subject or identifying gaps in the literature. One of the common criticisms made by external examiners is that students undertaking postgraduate level work use literature in a very accepting way, often with very little comment and without critiquing it or explaining its limitations or contexts. It is our view that postgraduate students need to be critical not only of their own work, but should also be critically reflective of other literatures. Such a level of understanding helps the final research outcome to be located back into the literature and shows how a contribution to knowledge is made (Mauch and Birch, 1983). Moreover, as mentioned above, the review process involves identifying gaps in prior studies, with a view to locating one's investigation in a broader context. Silverman identifies the contents of a literature review as:

- What do we already know about the topic?
- What do you have to say critically about what is already known?

- Has anyone else ever done anything exactly the same as what is proposed?
- Has anyone else done anything that is related?
- Where does your work fit in with what has gone before?
- Why is your research worth doing in the light of what has already been done? (2000: 227)

A literature review has a number of discernible features and imperatives as its characteristics. The first imperative is the need for the reviewer to give a rigorous yet pragmatic account of what is being reviewed. By engaging with and critiquing previous studies, the researcher needs to strike a balance that simultaneously displays criticality through inquisitive and considered arguments with regard to the assumptions, theories and methods used while at the same time acknowledging the validity of and insights and strengths made by the study. Second, literature reviews ought to supersede a descriptive re-run of what had been written and incorporate a thread – a train of thought – that progressively builds towards the very research topic for which the review is being conducted. This includes identifying gaps in the extant literature. A third feature, and one that attracts little attention, is that reviews go on throughout the duration of a research project rather than the conventional understanding that it is conducted at the beginning of a study and ends there. The review remains an ongoing project, which requires refinements and modifications as the study progresses. This is due in part to empirical findings that might lead the research to a new direction and therefore require adjustments to initial arguments and also because new findings emerge all the time and the research needs to reflect these and be as up-to-date as possible.

SEARCH AND PREPARATION FOR THE REVIEW

Knowing the journals

You will probably already have read something about your topic in a book or in a book chapter. You will be becoming familiar with the language used and the issues that appear important. You now need to know the studies already conducted in the field so that researchers avoid re-inventing the wheel and can identify what the contribution your own ideas might be to the existing body of knowledge. Looking at journals that deal with these topics will give you either useful insights directly from the articles studied or, at the very least clues, or leads, to follow from the references cited. This can lead to a significant saving of time and possibly save a good deal of unnecessary work.

An even more important purpose (and this links closely to the writing of research proposals) is for a researcher to be able to position her own field in the context of what has already been looked at in prior research. If this position proves a difficult thing to do, it does at the very least give an opportunity to follow a theme or idea over a number of years and the literature can be collated, re-conceptualized or otherwise brought up to date. There is a great sense of satisfaction to be gained from knowing the journals, the recurring names of authors and the conferences where your topic is most often presented or discussed.

Exploring potential sources

There are numerous ways in which a literature search can be done. Perhaps the most obvious is to begin with the library. JAI Press, for example, publishes a series of editions on research in various disciplines. These are updated regularly as new material is published. It is also important to take note of seminal works in the area, particularly those that offer an overview of the approaches to and extant literature upon a particular topic. For example, Easterby-Smith has published a review of Management Learning from the perspective of five different disciplines (Easterby-Smith, 1997) and a systematic review of knowledge in SMEs can be seen in Thorpe et. al. (2005). Both can be used as starting points for more specific investigations in these areas.

Another way of getting started is to begin with the relevant studies written on the topic over the years. These texts often provide interesting references, but this does have the drawback that it very quickly broadens the field of research and this can work against the need for research focus. Some publications offer a systematic précis of the articles published in editions of that volume year. For example, the *Journal of Marketing* offers such a précis. Over several pages it covers all types of significant articles and publications in all aspects of marketing (e.g. distribution, publicity, sales or strategy) for that volume year.

It is also an excellent strategy to see what subject specific networks exist for researchers so that they may become part of a wider research community in a particular research area. This can be a very fruitful way of getting to know like-minded colleagues who are working in a similar field or on a similar topic not just in a researcher's own country but all over the world. An example of such a network is the British Academy of Management (http://www.bam.ac.uk/groups). It has special interest groups that now cover fourteen different fields in management and related activities. Many useful leads and references can come from participating in e-mail discussion groups. Contacts for such groups are often found at conferences or similar academic associations. For doctoral candidates this kind of networking is perhaps even more important than for those simply engaged on an individual research topic, as it will bring them in touch with other researchers who are or have been undergoing the same experience. Doctoral streams and colloquia are organized by most of the big UK and USA and European conferences such as the British Academy of Management (BAM), European Group of Organisational Studies (EGOS), the American and European Academies of Management (AoM and EURAM), the European Doctoral Network (EDEN) and the European Institute for Advanced Studies in Management (EIASM). All these groups enable doctoral candidates to meet and submit their current research for discussion and debate with fellow doctoral candidates and senior academics. In addition, there are conferences organized by disciplines within management and these again often have their own doctoral provision, for example the BAM and the Institute for Small Business and Entrepreneurship. Both the AoM and EURAM both have also special interest groups which cover a range of disciplines and cross-disciplinary topics, they hold regular seminars and workshops and are very welcoming to new researchers. Perhaps it is also worth noting here that researchers often publish their most recent work as working papers, published through their own universities or through symposia. It is therefore important to know where research groups are based, their research focus, and how to get hold of their most recent working papers (there is usually a small cost attached).

Time devoted to literature searching

The time that researchers can devote to searching for literature will vary according to the stages of development of their research. Certainly at the beginning a great deal of time will be needed – some estimates suggest three quarters of a researcher's time at the beginning stage of research will be absorbed in this activity. But the activity should not become obsessive. It should be a means to an end with the study of the literature producing meaning and a concrete focus for the research. Although continuous studying in the library might sometimes be appealing, in a rather pragmatic way researchers will need to make the transition into the field. Too much information can be paralysing and research can lack focus or move in a fruitless direction.

Focusing the Research

As has been discussed in Chapter 2, focusing one's research often is a major problem and remains so at many stages of the research process. It is, though, of particular importance in respect to reviewing the literature. The literature review, and particularly the way that it is presented in a report or thesis, presents a major challenge. Conceptualizing a broad field can be difficult; bringing together a broad cross-section of papers and articles can be a gargantuan task and sometimes even insurmountable. However, a focus to the research will make the research clearer and to the point, rather than chaotic but all-covering.

Learning

Doing a literature search can be a significant learning experience for researchers. Connecting what is read to what is already known, critiquing the literature and conceptualizing and re-conceptualizing prior work into new patterns and themes can be a major contribution to a research study in its own right. Further, students should be encouraged to examine the ontological, epistemological and methodological assumptions, which will be further explained in Chapter 4, made in prior research so as to better understand what they regard as knowledge. Researchers undertaking research projects, whether they be funded for theses, dissertations or for undergraduate projects are expected, amongst other things, to display knowledge of the literature in their chosen field.

GETTING ACCESS TO SOURCES OF INFORMATION

Sources

The library represents the obvious source for obtaining published material. Most readers who have experience with libraries sometimes feel that using a library gives rise to a mixture of frustration when books are not on the shelves, vital inter-library loan articles are delayed in the post or Internet search engines are 'down'. But whatever one's impressions, behind the library shelves are trained and professional information managers who keep on top of an ever increasing quantity of information, whether it is in Britain, France or the USA (10,000 publishing outlets in Great Britain, – 125,000 items in print in the area of social sciences alone, – 8000 available journals and 5 million entries in the British Library Catalogue www.bl.uk/catalogue).

In addition to simply housing information, the British Library performs a role in making information accessible. It is possible, for example, to obtain photocopies of articles or research papers and can assist in locating PhDs completed within the UK. Europe more generally though is somewhat behind the USA and Canada in this information dissemination role where information on research is more easily available.

The very important aspect of using a library is to establish a rapport with one or a number of librarians, preferably one who is familiar with your field of study, and once the contact has been established, never neglect it. Such contact effectively means that researchers have a 'go-between' in someone who can communicate with the library system on their behalf. This is particularly important, as undertaking research can require a high level of specialized information as well as particular library skills that are not normally required; working with a librarian who has the inside knowledge and skills can thus be invaluable.

At present, although with new technology things are continually changing, the main types of support for bibliographic information are:

- Traditional 'hard copy' support; books and journals.
- Electronic databases, which can be accessed online via the library's website, increasingly offer a full text electronic journal services and at the very least abstracts.
- Other information; for example company accounts and market data.

When beginning any research 'search' it is always useful to weight the advantages and disadvantages of the support likely to be available. Issues that perhaps researchers ought to consider are availability, cost and time to gain access. There are two main ways of tackling a literature search; either the researcher has and needs a wide overall review of the literature in a specific field or they know exactly the articles that they want and simply need to collect these. Selvin and Stuart's (1966) refer to these as 'trawling' (when it involves a wide sweep to see what can be brought in) and 'fishing' (which involves a more targeted search). Trawling and fishing should not be seen as opposites, more different starting points, independent of the extent of the researcher's prior knowledge and focus.

Electronic searches

Before going to the library on a trawl, that is, sweeping up what information that exists on a topic, time can be saved by a researcher in deciding and being selective in what he or she is after. Before preparing for a search researchers should identify the types of information that they require. They can then prepare searches for the different resources, i.e. searches on the catalogue will be more general than those on a database and so on. Try to think a little bit about what you are attempting to look for so you limit what you get from the search and can be more confident that what you do retrieve relates to what you want to know more about. More specifically, a researcher needs to think about the keywords that can used to identify a field of study.

Using keywords, operators such as AND, OR and NOT can be combined to create search statements and refine searches. Most articles carry keywords beneath the abstract that identify themes addressed in the study. These can be invaluable filters when looking to focus one's literature review. It is useful to remember, however, that being too broad in terms of the keywords used will lead to too many references (often thousands) to handle, whereas being too focused may produce limited and orthodox returns.

Alignment with study context and approach

A review of the literature may be in a single disciplinary area or in several areas, depending on the nature of the research and its subject area. Regardless of the setting and the issue being investigated, it is paramount that there is some kind of alignment

EXAMPLE 3.1

A keyword search using Web of Science

An example of too broad a keyword might be 'knowledge'. There will literally be hundreds of thousands of articles using this term, in many different disciplines, with different meanings and linked to different concepts. It may refer to knowledge as a configured resource, or to a skill to be development, or to the knowledge of researchers themselves. It might also be linked to a firm's performance, or to psychological needs, or even to non-humans such as machines. Too narrow a keyword might be 'patent'. The noun is a very specific form of knowledge asset, and whilst used internationally in no way captures the entire range of activity associated with new product development and exploitation. The point that we make here is that terminology is very important. In order to find out what one wants from the mass of information in the library, a researcher needs to identify his/her interests clearly. An example of a search and the number of hits returned is shown below.

Focus of the search	*Search term*	*Number of hits*
Web of Science	Knowledge	100,000+
Web of Science	Management	100,000+
Web of Science	Knowledge or Management	100,000+
Web of Science	Knowledge and Management	27,564
Web of Science	Knowledge Management and Small Firms	115

EXAMPLE 3.2

PhD student's literature review

In a study of knowing and learning in organisations, a doetoral student adopted a cultural-historical and situated perspective on knowing based on activity theory. This demanded a multi-layered review of the literature, incorporating prior studies on organisational knowledge and learning, work-based learning, the nature of the industry in which the study took place. All constituted the thesis' theoretical and methodological framework.

between the research methodology to be adopted, its context and the approach used. Studies concentrating on a narrow subject domain will require a critique of the literature in that specific area. However, multi-disciplinary and practice-based studies might require a review which spans different literatures and synthesises them.

Whether the nature of the study focuses on one discipline or takes a more multi-disciplinary approach, the literature review will need to be consistent with the study as a whole. This means that the study's epistemology, strategy, literature review, design, methods and empirical sections should all indicate be linked and demonstrate an internal coherence (see Chapters 4 and 5). At the same time, as we have indicated, a simpler description of previous research is not sufficient. Rather, the review needs to incorporate both interpretation and analysis as well as being critical so as to underpin the research questions identified. For example, in order to go beyond simply reviewing general background information relating to knowledge of knowledge management and organizational learning, the student mentioned above needed to narrow the focus of interest to concentrating on specific perspectives, on knowledge, for example practice-based perspectives on knowing in firms. Patriotta (2003) offers an example of the way he has conducted his literature review (see Example 3.3).

EXAMPLE 3.3

Literature review by Patriotta

In his book entitled *Organizational knowledge in the making*, Patriotta (2003) reviews the literature on knowledge within firms and identifies different perspectives, including the cognitive, knowledge-based, 'situated' and techno-science approaches. He offers a critical interpretation of different perspectives, acknowledging their respective strengths while also identifying areas that require clarifying. He concludes by arguing for an integrated and multi-faceted approach to the the subject. Patriotta. What becomes apparent to him is that the pluralistic perspectives taken has led to his ability to propose that there are in fact three methodological lenses which transcend the narrow epistemological boundaries of current perspectives on organisational knowledge. These three lenses are suggested as being., breakdown, time, and narrative.

A subject-search then demands as a pre-condition the *identification of keywords* of one's subject area. A researcher should not think, though, that she has to find an exact match with those words used in the library to name a subject. Any classification system provides for alternative 'labels' to identify a category, and the researcher's part is to be aware of the most likely alternatives. It might be helpful to write a list of the different ways that a subject area might be described. An alternative term might be as straightforward changing the word slightly, for example when using 'organizational knowledge' as keywords, it would also useful to try typing in 'knowing'. Most databases allow the researcher to use a 'wildcard' when a term can have several endings, for example 'know*' would search for 'knowledge' and 'knowing' in some databases. Check the individual databases for the different forms these wildcard symbols take.

Three of the pitfalls that might be encountered in conducting a literature search in a library need to be borne in mind:

1. Do not be afraid to change the concept or label of the subject you are investigating. For example, returning to our search under organization knowledge – the wrong keywords can give some surprising titles, e.g. The organization of bees: knowledge of cellular structures'. Keywords clearly work better in some fields than others, but even these outlying titles can sometimes help to refine your objectives. If your search reveals many works on apiaries then you may be prompted into using hives and worker bees as at least appropriate metaphors for organizational knowledge; your conception of what's included in your subject expands. If no matches can be found, then other different keywords, sometimes broader, will need to be used. If on the other hand the research is too wide, more specific keywords will need to be used.
2. Equally, do not be fooled into thinking that an existing detailed analysis of research literature will substitute for your own analysis. Researching, as we have discussed before, is not exclusively about refining what has been said by others, it is also in part an act of synthesis. A detailed analysis of the subject will provide the keywords to commence the search but will not do it all for you!
3. Do not expect to find a single document that answers the essential points you are searching for. For example, a complex group of keywords such as: consumer, culture, scale, measure, psychometric, will not automatically lead to specialized articles in the marketing literature dealing with problems of cross-cultural equivalence of the scales of measures used in commercial consumer marketing research. It is even less likely to lead to a specific book on the subject! Consequently, when entering a library be willing and ready to consult a selection of materials.

Having considered the above, you are now ready to enter the library and switch on the computer.

LIBRARY RESOURCES

As we have discussed in the examples of the literature used, management comprises a wide range of subjects and is continually expanding as a discipline and body of knowledge. Fortunately there are a number of bibliographical publications and document services that can assist in searches. General literature and bibliographical publications which are the key to information searching fall roughly into seven broad groupings:

1 Books
2 Journals
3 Theses
4 Government publications and official statistics
5 Reference works, general guides to the literature and guides to the literature in particular subject areas (compendium catalogues)
6 Conference and working papers of research in progress
7 Web sites

Each of these will be dealt with in detail separately but a good strategy for a researcher is to begin by fully exploiting the stock and bibliographical publications in your own library. If necessary the research can be extended through borrowing books from other libraries through the inter-library loan system (bear in mind that this can take several weeks!). Electronic resources are now extending to include books and many journals have a service referred to as 'online early', which offers advanced sight of articles accepted for publication in future editions. These electronic versions of the article are identical to those that will eventually be published (apart from the fact they have no date) in the journal and cannot be altered or changed.

Books

Most libraries classify books in subject themes according to one of the major published classification schemes (for example, the Dewey Decimal System), often with some modification to suit local requirements. Browsing among books can be a useful way of providing an overview but it is always likely to be a partial one. If all aspects of literature were grouped in a single place, literature searching would be a simple undertaking. Often, however, the subjects are scattered around and range, for example, from economics to industrial sociology to psychology. The logic of this stems from the general structure of knowledge that is far from being immediately obvious. Sometimes it can be difficult to know where to classify a book, for example, the consequences to business after UK entry into the single European market. The online catalogue is, therefore, the best place to start a search for books. If the subject is a fairly specific one, it could be the case that there are no books on the topic and there may be a need to look under a wider heading in the subject or keyword index. Here you are likely to find several references and if there is a bibliography, it will refer to other works such as books and papers in journals. This should point the way to other potentially useful material.

The subject index and catalogue can also point to bibliographies that exist in the library's stock. If it is obvious at this stage that there are other published bibliographies which are relevant to the research then the next step is to consult one of the guides that list bibliographies. The *Bibliographic Index Plus* (www.hwwilson.com/

Databases/biblio.htm) is a list of both separately published bibliographies and ones occurring in books and articles. By examining this, it should be possible to find references to promising bibliographies including books that are in stock in the library.

The output of published material has become so great that it is unlikely that any library, however large, will be able to meet all of a researcher's needs from its own resources. So, once the stock of books available in one's university library has been reviewed, you may want to take things further and see what else has been written. To do this, the appropriate national bibliographies need to be consulted listing the book output of individual countries. Copac provides free access to the merged online catalogues of 19 of the largest university research libraries in the UK and Ireland (http://www.copac.ac.uk). The British Library Public Catalogue (BLPC) offers free online access to over 10 million records of items in the British Library Collection, and includes a document ordering link (http://opac97.bl.uk). Similarly the Bulletin Board for Libraries (BUBL) provides access to online public access catalogues by region (http://link.bubl.ac.uk:80/libraryopacs).

A comprehensive list of links to world libraries is usually available on most university web sites. To undertake an effective search you will need to know the foreign equivalents of the subject keywords being searched and access to a translator or interpreter may also be necessary. For the non-linguist, there are information sources that refer to works that have been translated, such as the Index Translationium and the British Lending Library's BLL Announcement Bulletin.

Before concluding this section about books, it is worth mentioning the existence of catalogues from other libraries that can be a very useful source. These printed or online catalogues are, of course, restricted to the holdings of the library concerned, but are not limited to the output of any particular country. Very large libraries such as the British Library or the Library of Congress (USA) contain almost all publications in the English-language and a large percentage (although on the decline) of foreign-language publications. In addition, there are such on-line national/international catalogues as Copac, Bibliotheque Nationale (Paris), Deutsche Bibliothek (Germany) and Biblioteca Nacional (Spain). Specimens of more specific catalogues can be supplied by such institutes as: the Institute of Chartered Accountants, which goes under the name of Current Accounting Literature and also by the Baker Library from the Harvard Business School, entitled Core Collection – An Author and Subject Guide. (http://www.library.hbs.edu).

Journals

For research, perhaps the most important area is the stock of periodicals or journals. These hold the key to the most up-to-date research and are the sources that researchers need to make sure they cite on proposals; they also represent the means by which the most recent research is placed in the public domain, and because of the screening employed (through the refereeing process adopted by the highest ranked journals) they represent quality. There are a number of ways in which articles on relevant topics are to be found. For example, the researcher could simply leaf through some of the best-known business journals in order to spot how journals deal with particular topics or themes by using their annual indices which usually produces a subject and author guide but usually a student would register with Zetoc. Zetoc provides access to the British Library's electronic table of contents of around 20,000 journals and 16,000 conference proceedings annually. The service is free to all those in higher education institutions. What you get is not full text but instead table of contents, however once a issue has been identified of interest, links enable you to access the full text. Complete the exercise below to register with Zetoc (zetoc.mimas.ac.uk).

Some libraries keep up-to-date summary catalogues to be consulted on the spot, i.e. content pages of everything new in a particular month. And, it is often also possible to sign up with publishers to be informed of new issues. However, a far more effective way of locating articles is to use the appropriate abstracting and indexing services, since by doing this a researcher can scan as many as several hundred journals at one time, where articles appear useful the expectation now is for them to be able to offer a full text service. As you are able to view the abstracts first it will help you decide whether an article is worth downloading or not. Using this approach, it is possible to discover references that a researcher would not normally come across. The abstracts give the precise reference for an article and offer a summary, while the 'index' is limited to simply the bibliographic details. Some of these abstracting and indexing databases also offer access to the full text article directly from the database, though where this is not the case use the library catalogue of your home institution to see if the library subscribes to this journal either in print, or electronically.

Most business school libraries as well as several universities offer a wide range of abstracts and indices covering a range of management themes, the majority of which are now in electronic format. Perhaps the two most useful general services are ABI Inform and Business Source Premier. Emerald is also a full text data base of journals although it only covers emerald's own journals.

In addition to the general 'abstracts and indices' there are several others which focus on specialized fields, such as for example, International Abstracts of Human Resources, International Abstracts in Operations Research, Marketing Information Guide, Packaging Abstracts, Psychological Abstracts, Training Abstracts and many more. Others such as Public Affairs Information Service Bulletin (PAIBS) are very useful for retrieving information on affairs connected with the international public environment, while the current Technology Index, although being on the boundary of management studies can also be very useful.

Keeping yourself abreast of what is coming out is essential. The majority of journal publishers offer an alerting service whereby researchers can be informed of new articles published in their areas of interest and some libraries have own systems on offer. An easy way to keep yourself regularly updated is to log onto Zetoc Alert. This is an Internet based awareness service which sends out emails to alert of new publications in the field that is specified (zetoc.mimas.ac.uk). An exercise that all students should engage is to set themselves up with a ZETOC alert.

Theses, dissertations and research in progress:

For those undertaking higher degree research as well as those who are undertaking research generally, it is often important to know what theses have already been completed, if only to identify the individuals to make contact with. There are several ways of knowing just what research is being conducted. In Britain theses are

EXERCISE 3.1

Setting up your Zetoc Alert

To set up a Zetoc Alert you should first log into homepage of Zetoc (http://zetoc.mimas.ac.uk). You should then enter your username and password which you should be able to get from your central library. Your institution may use Athens logins or individual institutional logins but your librarian should be able to give you this information. Once logged in follow the instructions on the site. More detailed information about setting up a Zetoc Alert may be found at http://zetoc.mimas.ac.uk/alertguide.html

available through the *Index to Theses with Abstracts Accepted for Higher Degrees by the Universities of Great Britain and Ireland* (published by Aslib). Dissertation Abstracts International provides electronic access to international dissertation abstracts by library subscription, or free on the web for two years (http://wwwlib.umi.com/dissertations/). In France, there is a national register of current theses managed by the University de Paris-X Nanterre. There is also DOGE, an abstract of the underground literature on management in France, mainly research papers and theses.

In the USA, Dissertation Abstracts International offers one of the largest and up-to-date lists. It is divided into several parts: Humanities & Social Sciences (Section A); Physical Sciences & Engineering (Section B); and the European Abstracts (Section C). Dissertation Abstracts covers most theses produced in North America; copies of which can be borrowed within a few weeks at a very reasonable price from the British Library Document Supply Centre at Boston Spa. Management is contained in Volume 8 of the index. A check needs to be made under the keyword. If there are no titles of interest listed, then the individual volumes will need to be checked. If no theses are found, it should not be considered a waste of time since it is helping to ensure that there is no duplication of research. As the cost (in time) of duplication of research is high, searches of this kind can be a very worthwhile exercise. There is currently an initiative under way through Je-S to make this process all electronic. The European countries have similar systems to the American Dissertation Abstracts. For example, in Germany, the *Jahresverzeichnis der Deutchen Hochshulschriften* and in England, the Aslib *Index to Theses*, as mentioned above.

Information on research actually in progress is not easy to come by and it is here that experienced researchers, who tend to build up contacts over the years have a considerable advantage. Being members of a British Academy of Management Special Interest Group or one of the American Academy of Management Divisions can give access to a vibrant network. The Economic and Social Science Research Council's newsletter (*The Edge* from the ESRC) which brings the latest and most topical social science research to key opinion formers in business, government and the voluntary sector. Other possible sources of information include the registers of current research published by several leading Business Schools. In France there are newsletters such as *Courier du CNRS*.

Government publications, official statistics

On a case by case basis, libraries choose to classify official publications either separately or include them within the general catalogue. In Britain, researchers should refer to the Annual List of Government Publications or, if necessary, to the monthly or daily lists. This involves first looking at the index at the back of each list for headings that appear to be of interest or 'fit' the keyword describing the subject. There are many published introductions to government publications and official statistics and many libraries produce their own guides to their stocks. For more comprehensive information on what official statistics are available, the Central Statistical Office's Guide to Official Statistics is an invaluable source (http://www.statitics.gov.uk). An online resource of the British Publications Current Awareness Scheme is available online (http://www.bopcas.com/). Another useful free electronic resource is the National Statistics web site (http://www.statistics.gov.uk).

Some international organizations also offer important statistical information. The Organisation for Economic Co-operation and Development (OECD), for example, provides information on the economic indicator statistics on international trade and statistics on products (http://www.oecd.org/statistics). The FMI sums up the main economic and financial data for all EU member states. The ONU statistical directory and the Communantes European (Official Statistics Bulletin for the EU members) are both useful sources. An online catalogue for The Stationery Office (formally the HMSO) can be found at http://www.thestationeryoffice.co.uk.

Reference books, general & specialised bibliographic guides

The final group of publications which a researcher needs to know about are a group of publications that are general guides to the literature or subject areas. New researchers can use reference works, for example to become aware of any organizations relevant to their interests and these can indeed be fertile sources of information.

In Great Britain, publications such as A.J. *Walford's Guide to Reference Material*, *Current British Directories* or its European counterpart, the *Current European Directory*. Directories such as *Kompass* and *Who Owns Whom* (the FT500 is now only available through the FT web site) also constitute useful sources of business information. In France, researchers could use, for example, *Sources d'Informations Statistiques*, published by Editions Ytem or the *Bottin Administratif*. For those who need detailed financial information on a company, services such as FAME (Bureau van Dijk, http://www.bvdep.com) or Global Business Browser (OneSource, http://www.onesource.com/index.htm) supply financial data on most sizable businesses as well as the main European companies as the DAFSA does in France. Data is also held for unit trusts. Other sources are the *International Stock Exchange Yearbook* and a specialized journal published by the Financial Times Business Service, Mergers and Acquisitions, which includes relevant information on mergers and acquisitions. Services such as Datastream and Exstat give direct access to financial data. In France, Diane supplies, electronic data on French businesses. Share prices can be consulted on Datastream, and on similar products such as Perfect Analysis and Hemscott, or on the financial pages of the *Financial Times* or the *Wall Street Journal* depending on the financial market being analysed. For up-to-date press comment on individual companies, have are databases, the most use for being Lexis-Nexis or Factiva.

Web sites: the Internet as an enabler and an adjunct

One method of undertaking research that has become much more of an everyday facet of both doing business and conducting management research is the Internet. From its beginnings in the late 1960s as a means of networking the US Defence Agency, through the introduction of the World Wide Web, to the current Internet information structure, the Internet has had a high input on the ways in which information flows and where information resides. Its impact is also felt in the way research is conducted.

Raymond Lee (2000) has outlined the potential uses of the Internet as an 'unobtrusive' way of gathering data for social research. He argues that the wide availability of personal computers now affect the researcher in a new way to acquire, store and manage data. The advantages are fourfold; first, access to 'unusual' groups has become easier, due to their increased visibility and the lessening of time and space constraints. Second, if is possible to trace patterns of social interaction and social trends through a record of Internet usage and perhaps through the tracing of Internet trends. Third, researching through the Internet may well provide a very reliable means of guaranteeing anonymity both to respondents and the researcher during research projects, which could be useful in researching sensitive topics. Fourth, the Internet may enable social researchers to trace social processes more easily than through face-to-face interaction.

One of the themes that we have touched on in this book is the importance of play. The Internet could encourage both respondents and researchers to be more playful in research projects. There are also the issues of ease and relative low cost (both in terms of time and resources) which research via the Internet provides. Surveys could be distributed more easily than through the post; email may provide a way both of making initial contact and conducting adhoc interviews; and the Internet itself provides an enormous documentary resource for the researcher to exploit.

However, these advantages should perhaps be balanced with a number of obvious problems. First, the relativity of the data (as with any data) must always be considered; bluntly, is the source to be trusted? Data made available through governmental web sites, for example, may be much more reliable than data posted by someone from a lobby group. (This of course, does not imply that state-sponsored web sites are somehow value-free or neutral and should not be considered critically!) Second, the use of the Internet to conduct empirical data collection must also be considered in the light of the huge increase in electronic traffic over the last few years. Just as a survey may end up in the bin of a manager who receives it in the post, so might the email and attachment! Perhaps this is becoming even more likely with the increase in viruses and the care with which people are reminded to open attachments. Response rates therefore, may be at least as low as for postal surveys. Third, the lack of physical contact needs to be considered (what Lee [2000] calls the 'disembodied' nature of Internet interaction) may lesson the richness of the data collected. Fourth, and relatedly, the impact of the 'asynchronous' nature of the majority of Internet interaction.

This relates to the relatively small opportunity to communicate with respondents in 'real time' and is an interesting aspect to consider when assessing data collection electronically.

The enormous information resource that is potentially available is both, as Lee (2000) suggests, a blessing and a curse. The sheer volume of information makes finding what you are looking for both more likely and more difficult. This is where search engines play their part. Lee (2000) has some suggestions when deciding which search engines to use, particularly the choice between the active and the passive. Active engines search (or 'crawl') through the Internet pages themselves, cataloguing by vocabulary used or by sites visited. Passive engines on the other hand, depend on the page 'owner' forwarding a description to the search engine administrator. Each has inherent advantages and disadvantages: active searching may generate more contemporary links, and a larger number; passive engines may however, be more relevant in the 'hits' presented to you.

Of course as with any data collection, the best way of moving forward is to try out different approaches. In this way experience will help the user decide between alternatives. The now ubiquitous Google does have a very useful offshoot called Google Scholar which if used in the advanced search mode provides the most relevant links, is easy to use, often the quickest, and has no advertising! Others search engines with similar offerings include:

- Webcrawler: http://www.webcrawler.com
- InfoSeek: http://www.infoseek.com
- Yahoo: http://www.yahoo.com
- Lycos: http://www.lycos.com
- Altavista http://altavista.com

Wikis can also be useful sources of information. They are online databases that allow users to add and edit content – the most well know of these is Wikipedia. As a range of users can change the content of the database, researchers should use their common sense and verify anything they are taking from a Wiki source. Therefore if approached with caution, a Wiki can be a useful way of gathering preliminary information.

Finally, a *caveat*. Lee notes, that there will be a change for an increasing amount of the information and data that is available through the Internet. The initial ethos of the Net, based on sharing information and ideas in a safe academic forum, has become commercialized through both online trading and the sale of data. As a rule of thumb, it may be best to work with the idea that the Internet will not provide 'something for nothing' in terms of data. Often your library will subscribe to journals allowing you direct access to articles, but equally often you will be asked to pay a fee to get access. It is often worth checking alternative sites to check whether what costs through one is free through another. The Internet is undoubtedly of great use in identifying and honing research questions and issues, and in facilitating communication and it will continue to grow in importance.

In connection with getting hold of specific material of relevance, it is important to know something about a bibliographical aid known as 'citation indexing'. Briefly, a citation index brings together all the other papers that have subsequently made reference to a given paper, and is the only indexing method that enables a researcher to search forward in the literature. This type of indexing is based on the concept that an author's references to previous articles identify much of the earlier work that is relevant to his present paper, and are themselves the best indicators of its subject. The Science Citation Index has been available to researchers in the sciences and technologies since 1963. In 1973, the Social Sciences Citation Index was launched, with a coverage of 1000 journals. This was a major development in literature searching for social scientists, as its value increases as the database grows in size with the passage of time. To begin searching for articles on a particular subject in the Social Sciences Citation Index, a researcher only needs to know the name of one author who has written something on or related to the chosen topic; he can then find all the articles up to the present that have cited the earlier article.

ORGANIZING YOUR MATERIAL AND BEING SYSTEMATIC

Organizing

To avoid being flooded with references whose contents and quotations are difficult to control, mechanisms for organizing become essential. We therefore recommend devising a system of storing your results, either an electronic database or something much simpler. There are both low-tech and high-tech options here. The low-tech option is to use standard hand-written record cards in subject and alphabetical order: do not dismiss these just because we live in an electronic age! Having things permanently visible can be an advantage as we will see in Chapter 8 when we examine the various merits of different methods of data analysis. The high-tech option involves using a computer database. There are many database packages available which can easily deal with this type of information handling. They range from the rudimentary to the exotic. In attempting to discover which system to purchase, it is worth giving some real data to a system seeing how 'easy' or complex it is to use. Never purchase any software without trying it out first. Universities and colleges often subscribe to a specific package such as the Endnote or ProCite, which are packages specifically designed to help students keep track of their references. They can be set up in such a way that the reference can be linked through to your institutions electronic library and so in effect an electronic copy of all you references can be held at the touch of a button. Remember though that this usually only works from the university's main site and off site use of this link can be difficult. These do not have to be used in conjunction with bibliographic databases, and can be used as an electronic catalogue of those studies you have deliberately and personally chosen. The advantage of these packages is that in addition to being widely available and often accessible simply through registering as a student, they are also compatible with the growing number of bibliographic databases.

It might appear an obvious point to make, but one tip is to make sure all references are recorded. No one will believe it but once books have been read and returned to the library shelves or radio programmes have finished and the day they were broadcast forgotten, it is extremely difficult and very time-consuming to find references unless the researcher has developed some kind of systematic cataloguing system.

If the researcher has a personal style that precludes systematically writing on cards or typing them into a database as the literature is being read, then at the very least go for a low-tech option of using a cardboard box or a shopkeeper's spike for their references. This way they are in one place and can be retrieved later! Using a software package goes a long way to alleviating this problem. Once stored and backed up they can be used again and again. As time goes on, you can build up your own library of references, with associated abstracts and keywords. This software also enables you quickly and accurately to create your own bibliographies when writing and to do so according to the dictates of all manner of citation styles (typically these will be Harvard or Chicago styles).

Whatever system you use there is a need to build bibliographies from the start of a research project. The bibliography must not be written at the end of research work. One can simply use a text organizer such as Word allowing material to be sorted alphabetically. What follows is how you might approach a review of a particular area or field. First you need to consider the type of review that is to be undertaken. Remember, the aim you are trying to achieve is how the findings and concepts of what has gone before help the argument that you are trying to develop. The review is seeking to identify themes patterns and contradictions that help you to take a position and locate your own work.

Systematic reviews

In essence, a systematic review involves two processes. First, defining review protocols and mapping the field by accessing, retrieving and judging the quality and relevance of studies in your research area. Second, reporting the findings to identify where gaps in the current research exist and so indicate where your research might make a useful contribution very much in the way we have already discussed, and many doctorate programme directors are now requiring students to both know of (but in some cases be able to complete) the systematic review process and know the protocols that are required to be followed.

Typically, systematic reviews are restricted to published peer-reviewed, academic articles that exist within management and organization studies fields, because it is through such peer reviews that quality of the research and its relevance can be judged and maintained. It is recognized that there is a lack of searchable databases for book chapters and reports, though currently there are a number of national and university libraries working to increase the number of books available online. The choice of bibliographic databases will depend upon what access is available although as we have discussed universities often subscribe to a number of them.

The objective of a systematic review is to achieve a become between identifying a manageable number of studies, without excluding important key studies. To further assist in limiting the search, exclusion criteria can be used which have been discussed earlier in this chapter. The point behind systematic reviews (i.e. why they are systematic rather than simply personal choice) is that each filtering decision is noted down and is transparent for others to see what you have done and so judge the relevance and substantive nature of your review. Articles that are returned are not seen to have been selected on the basis of personal preference.

Each database will yield a list of potentially useful studies using search strings alone. These can then be exported to referencing software such as Endnote or Procite. The advantage of doing this is twofold. First, if the lists are still too large they allow for further filtering using features like keyword and journal searches. They also allow the researcher to collate the different lists from the different databases, and so remove duplicate studies. Second, once the relevant studies have been reduced to a manageable size, they allow the researcher the opportunity to read through each abstracts. It is at this stage that the studies can be divided into: relevant, partially relevant and less relevant. The review being systematic means the criteria for judging which study goes into which list have also to be identified and justified. So again a degree of self reflection might also be useful here. For example, concerns such as: data quality; access; theory development and ambition; links to research question and so forth. Remember that at this stage it is only abstracts that are being examined so a great deal depends upon the coverage and clarity of the abstracts concerned and journal style does vary enormously. With some studies there maybe wholly inadequate abstracts and this may mean that the introduction and/or conclusions of the article need to be examined – what is sometimes referred to as examining in detail.

Once the final relevant list has been drawn up, they then need to be read and summarized so that they can be classified. The categories chosen will be yours and the sense that you make of what has gone on already in your research, which areas have been covered and in what depth so you can more confidently see the relevance and contribution your work makes to the whole. So to revisit the example of studies looking at knowledge used in professional firms. The analysis of the studies may look to group those studies by types of methodology used, by titles of journals, in which they are published, by types of firm studied, and by the conclusions reached; each of these being further classified where common themes can be discovered. To assist in this process (especially if the number of studies to be read covers 100 or more), coding software such as NVivo might need to be considered, which will be further discussed in Chapter 8. The resultant categorization then forms the basis of the structure for writing up your literature review; the conclusion of which will be a discussion of where your own work will relate, compliment and/or challenge existing studies. To help with this reference should be made to 'organising a draft' in the section below.

A good way to familiarize yourself with the systematic review method is to read a few recent editions of the *International Journal of Management Reviews* or consult the Advanced Institute of Management's website (www.ainresearch.org) and to then begin to design and follow your own search protocols and criteria. Tranfield et al. (2004) have drawn up several phases that suggest what a systematic review might consist of. These range from preparation for the review to the final documentation and use of the results, as shown in the Table 3.1.

One of the problems with systematic reviews is that they often encourage the widespread use citations based simply upon a reading of abstracts. Some academics have made cutting remarks about researchers who are happy to quote material that they have not actually read (but instead have assimilated concepts and ideas from other articles). We must be clear here and point out that if the material is a quotation from a secondary source, for example an author cited by another author and this is the only way in which the reference can be cited then that is one issue, but quite another is when reference is made that stretches beyond just what we do not

TABLE 3.1 The systematic review process

Phase 1: Planning the review
Forming a review panel
Mapping the field of study
Producing a review protocol
Phase 2: Identifying and evaluating studies
Conducting a systematic search
Evaluating studies
Phase 3: Extracting and synthesizing data
Conducting data extraction
Conducting data synthesis
Phase 4: Reporting
Reporting the findings
Phase 5: Utilizing the findings
Informing research
Informing practice

SOURCE: ADAPTED FROM TRANSFIELD ET AL. (2004)

physically possess or know and what we have not read. It is probably advisable to avoid quoting this kind of material as it can lead to difficulties concerning comprehension and interpretation, dangerous even if the citing or quotation is not entirely improper. The risk lies in revealing an author's thought without having recourse to one's own reasoning.

There is value in presenting a concrete example where systematic review was used in a study. One such review is illustrated here in Example 3.4, which is the work of Thorpe et al. (2005) who conducted a systematic review of how small and medium enterprises (SMEs) create and use knowledge.

Writing reviews

Having read critically and produced analytical summaries of the literature, it is important that a researcher then goes on to synthesize an interpretation that both reflects and demonstrates their comprehension and familiarity with the literature reviewed. There are several ways in which this can be achieved. One approach

EXAMPLE 3.4

Systematic review by Thorpe et al. (2005)

Thorpe et al.s (2005) study had a number of key stages.
Background preparation: a review panel was first formed consisting of the study's authors. The panel considered prospective sources of information, deciding on using peer-reviewed journals – both practitioner and academic. Books, reports and book chapters were excluded on the grounds that they did provide the opportunity for searchable bibliographical databases. The team then used terms relevant to the study as keywords to determine the most appropriate databases given the peculiarities of the research. Thus, words such as know* and learn* were employed. The asterisk (*) helps retrieve variations and related words to the one's entered in the search. For example, searching for the word know* encapsulates knowledge and its derivatives, including 'knowing'. The returns were analysed and used as guides in narrowing down the type of databases. In this case the databases with the highest of returns were chosen, which were ABI Proquest, Business Resource Premier, and Ingenta (incorporating Science Direct). Up to this point the process involved identifying relevant databases. The next step was to do detailed keyword searches.
Keyword search: since the topic was knowledge and learning within SMEs, the team's principal keywords and search strings included know*, learn*, SME or small firms and Entrepreneur*. When keywords were deemed to complement one another the word AND was used to enable the retrieval of a comprehensive result (for example know* AND learn*). Where they were seen to be substitutes OR was used instead (an example here is SMEs OR small firms). Of course know* and learn* may also be viewed as substitutes, and this was reflected in searches, with keyword searches alternating between the formats know* AND learn*, and, learn* OR know*.
Exporting results: the results were downloading into the Procite software programme. This gave each paper's keywords and abstracts. In the first instance, the team sifted through the abstracts determining the each article's relevance to the subject of study. Those articles considered irrelevant were excluded as were those from other fields such as education and engineering. The key guiding idea at this stage was relevance and not the depth of the articles.
Further exclusions: with the articles put together, the next step was to interrogate them based on a number of criteria: theory robustness, implications for practice, coherence between data and arguments put forward, theory, relevance to SME knowledge (on account of findings, methods, and theories), and contributions made. The result of this exercise was the identification of papers that dealt with SME knowledge while meeting the set criteria.
Themes and conceptualisations: the study portrayed a landscape of studies into SME knowledge and produced broad themes as well as sub-themes about the subject. These findings were eventually published as an academic paper.

advocated by Buzan (2004) involves creating an idea map. A mind map of a research project is shown in Chapter 2. But wherever the researcher begins she will need to be able to construct a literature review intelligently, clearly and interestingly. Reviewing the literature is a difficult art as it often contains a variety of diverse materials that needs synthesis. In our view, it is the following that needs emphasizing:

1 The basic questions at the heart of the particular piece of research. These can sometimes best be illustrated by the questions posed by those currently working in the field. They often have a legislative authority to suggest the research questions that ought to be answered.
2 The genesis of the thinking at different periods of time in the study of a topic or phenomenon.
3 Relating the hypothesis and theoretical perspectives to the early stages of the research methodology explaining how the methodologies adopted might lead to new or more valid insights from the research.
4 Conceptualizing different dimensions from the literature review, for example, fundamental theories that relate to specific contexts.
5 Preparing the reader for the argument that they might be making as a result of having conducted the literature review. That is to say, compiling a literature review that makes clear just where a researcher's own contribution will be made later in the research.

In the example shown above (Thorpe et al 2005) two aspects were highlighted from the review as being significant. One related to the importance of social capital, the other to absorptive capacity. Both these concepts formed a major focus of investigation and contribution to their understanding in the context of small firms featured large in the findings and evaluation of the study. Examples of how to structure and write a literature review are dealt with in Chapter 12.

PLAGIARISM

Over the years there has been a steady growth in cases of plagiarism and discussions about plagiarism among students often reveal uncertainty and doubt regardless of the attention it receives. Generally, plagiarism involves presenting the work and ideas of other people and passing them off as your own, without acknowledging the original source of the ideas used. Although plagiarism is not a new issue, its existence has been less easy to detect and it is only through the advent of information technology and packages such as Turnitin (www.turnitin.com) that plagiarism can be detected. While Internet search engines may make information easier to acquire, they also serve to provide students with endless sources of material from which to 'cut and paste'. What were once cases of minor infringements have become a problem of epidemic proportions (Duggan, 2006). Similarly, while there maybe naïve use and sloppy referencing, Leask (2006) observes that there is a growth in deliberate plagiarism, especially as it relates to the Internet. He draws attention however to ambiguities that can exist between interpretations, arguing that plagiarism has different meanings, depending on the context. For example whether plagiarism relates to a research in the context of a report or exam, issues are raised about the variation in cultural norms and traditions in respect of citing material. All this is not helped by researchers who appeared to find no problem in 'borrowing', without referencing, large chunks of material from a US PLO student in order to compile material to support a particular position on Iraq, without reference to the original source, which the then prime minister than who went on to present more widely. But for the progress of this book, discussions on plagiarism centre around conscious attempts by individuals to steal the work of others. Also under this heading are those researchers who, without due recognition or reference, memorize ideas that originate from other sources, and, after a degree of assimilation then go on to make the same very ideas as their own and as a consequence fail to add an appropriate acknowledgement (Park, 2003).

Examples of plagiarism

The recurring themes as to what constitutes plagiarism includes as we have already identified copying another person's material without proper acknowledgement or reference, paraphrasing others with out acknowledgement, thereby giving others impression the work represents your own original formulation, and of course buying ready-made material from professional writers. There is an increasing number of web-sites that offer such services and some of those being offered are extremely sophisticated. Payment relates to the level of degree but individual topics can be specific. Of course for those who have to undergo oral defense of their work the fact they are not attached to the literature soon means they are caught out, while references that are not in the university libraries also raises suspicion. In preparing the book use has been made of the work of others but references or acknowledgement will be seen in the text. Where researchers have provided data or material for incorporation or critical feedback obtained from colleagues they have been acknowledged by name at the front of the book. Park synthesized four different forms of plagiarism found to be common among students:

1. Stealing material from another source and passing it off as your own, for example:
   a. buying a paper from a research service, essay bank or term paper mill (either pre-written or specially written);
   b. copying a whole paper from a source text without proper acknowledgement;
   c. submitting another student's work, with or without that student's knowledge (e.g. by copying a computer disk).
2. Submitting a paper written by someone else (e.g. a peer or relative) and passing it off as their own.
3. Copying sections of material from one or more source texts, supplying proper documentation (including the full reference) but leaving out quotation marks, thus giving the impression that the material has been paraphrased rather than directly quoted.

4 Paraphrasing material from one or more source texts without supplying appropriate documentation. (2003: 475)

In order to avoid plagiarism students should ensure that they have clearly referenced where others' words and concepts have been used but also where others' ideas have influenced their thought process. This involves keeping up-to-date and precise references about where you have accessed material from as even accidental plagiarism is considered a serious issue. Given the increase in plagiarism, universities are employing a zero-tolerance policy and students are increasingly being penalized over this issue. In an attempt to combat this problem, institutions are beginning to run courses which aim to educate students to ensure that they are aware of what constitutes plagiarism. Given that plagiarism is a difficult and confusing area, it may be worthwhile checking if any such courses are available at your institution, where you will be most likely be given clear examples of both deliberate and accidental plagiarism to ensure you are aware of the potential perils of careless referencing.

CONCLUSION

In this chapter, we have aimed to provide insights into where to find relevant literature and other sources for a research project and what aspects are important when actually writing a literature review. The key points of this chapter, therefore, are:

- **The literature review is a continuous process, requiring writing and re-focusing throughout the research project.**
- **The literature review should be used as a tool to strengthen your personal argument, rather than blindly repeat what has been said before.**
- **As with research in general, the review is about crafting and arguing for your contribution through demonstrating a thorough knowledge of what has gone before.**

Which literature a researcher uses for his literature review is, of course, influenced by the questions he wants to answer in his research project. The questions that researchers ask in their research projects are in turn affected by the philosophical assumptions that underlie the way they see the world. Which different philosophical assumptions there are, and in what way these may direct a research project will be discussed in the next chapter.

EXERCISE 3.2

Being organized and deciding on a bibliographical format

If you don't know what bibliographical format you are going to use, Endnote or ProCite are flexible and will enable changes to be made later. Examine a number of bibliographical formats and decide which you are going to use. If you are going to use a computer package such as one of the above, book yourself on a course from your training support unit.

EXERCISE 3.3

Pros and cons of searching systematically

In pairs, discuss the advantages and disadvantages of using systematic searches compared to a more personally directed approach to the identification of appropriate sources.

EXERCISE 3.4

Experience of doing a literature review

Select two journal articles relevant to your topic. The first should have been published with the last two years the second should have been published before 1990. You should identify the following themes in each paper:

- What was the research question?
- What theoretical approach underpins each paper?
- What methodology was adopted for the collection of data?
- How were the data analysed?
- What was the nature and the size of the sample?
- What were the key findings?
- How many times has the article been cited?

FURTHER READING

Tranfield, D., Denyer, D. and Smart, P. (2003) 'Towards a methodology for developing evidence-informed management knowledge by means of systematic review,' *British Journal of management*, 14 (3): 207–22.

This article examines the case for making reviews of the literature more systematic. The authors criticize traditional 'narrative' approaches to reviews for their lack of Thoroughness and their failure to take account of evidence that might provide insights and guidance for practitioners and policymakers. They compare management to medicine, another applied discipline and evaluates the extent to which the process of systematic reviews in management also produce reliable knowledge that enhances practice. The challenges in such a methodological approach are also discussed.

Hart, C. (1998) *Doing a Literature Review: Releasing the Social Science Research Imagination*. London: Sage.

This book has been written for students from across the social sciences and humanities. It offers a practical and comprehensive guide to writing a literature review. It takes the reader through the initial states of an undergraduate dissertation or postgraduate thesis.