Searching and reviewing the literature

CHAPTER CONCEPTS

The search and review of the literature is a critical evaluation, analysis and synthesis of existing knowledge relevant to your own research problem. It is critical in that you are required to evaluate what you read. It is an analysis in that you are required to extract different kinds of information from what you read. It is a synthesis in that you are required to show the relationships that exist between different studies and show how these relate to your own research. You are aiming to assess critically what definitions of the topic/problem have been offered and how they have been used and to evaluate the methodological approaches employed and to identify gaps in empirical work and assumptions used. A literature review is not therefore a summary, synopsis or series of annotations or a description of other people’s work. A good literature review: exhibits technical competencies in searching for and selecting items; has clarity of expression in writing and arrangement of materials; undertakes argumentation analysis in the evaluation of existing work; and is used to structure the reasons for your proposed research and to show where your research, once completed, relates to existing knowledge. The key questions looked at in this chapter are:

1. What will a search and review of the literature contribute to a dissertation?
2. What is the literature and how do you find relevant publications?
3. How can you analyze the literature?
4. How can the literature be used to justify your topic?
5. What is a literature review and how do you write one?

Students often say that searching the literature is one of the most enjoyable parts of doing research, but that reviewing what they find is one of most difficult. This chapter will help you to do both of these necessary tasks in ways which give you the opportunity to develop the ability to become competent and efficient literature searchers and reviewers of different types of literature. This chapter is divided into two main parts—searching the literature and reviewing the literature. The focus throughout is on enabling you to plan and execute and indicative and comprehensive search for literature on your topic and on possible methodological approaches for your research.

What is the Literature?
The literature for most masters research projects is made up of various published and non-published items including books, statistics and reports. Table 6.1 lists the main items which make up the literature. Note from this range of publications the inclusion of such things as conference papers and patents. It you intend to do a state-of-the-art search, then the latest thinking on a topic or method is usually to be found in the conference literature.

If your project is work-based, possibly looking at something like research and development, then the patents and trademark literature may be relevant. Different types of dissertation, topic and methodology therefore demand different kinds of literature to be searched. For these reasons you
need to plan your search before you begin. Your main source of help in planning for an effective and efficient search is:

<table>
<thead>
<tr>
<th>TABLE 6.1 THE LITERATURE</th>
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<tbody>
<tr>
<td>monographs</td>
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<tr>
<td>anthologies</td>
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<tr>
<td>edited works</td>
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<tr>
<td>legal publication</td>
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<tr>
<td>trade literature</td>
</tr>
<tr>
<td>conference papers</td>
</tr>
<tr>
<td>statistics</td>
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<tr>
<td>patents and trademarks</td>
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<tr>
<td>official publications</td>
</tr>
<tr>
<td>textbooks</td>
</tr>
<tr>
<td>articles and editorials</td>
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<tr>
<td>theses</td>
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</tbody>
</table>

Below is a summary of the key points you will find in *Doing a Literature Search*. Also remember to consult your librarian for advice on new developments in electronic databases.

**WHY SEARCH AND REVIEW THE LITERATURE?**
There are many good reasons for searching the literature on your topic. In the early stages of your research, when you are thinking about what topic to research, an indicative search and review will be absolutely necessary to identify what has already been done and what may need doing to fill a gap in our knowledge. The main reasons for searching and reviewing can be expressed as a series of questions you will need to answer about your ‘topic’. These can be divided into three broad groups: the first contains questions about the basic features of your topic; the second is about the nature and extent of the knowledge on your potential topic; and the third is about mining the methodological details from the literature.

Basic questions to ask are:

1. What research and theory is there on my topic?
2. What are the key sources (books, articles, reports) on my topic?
3. Who are the main theorists and researchers on this area?
4. What is the language of my topic and how is it used?
5. What is the history, chronological development, of the topic or problem?

Intermediate questions to ask are:

6. How has the topic or problem been defined?
7. What are the different frames of reference for researching and discussing the topic?
8. How has the theory been relate to practice or to empirical research?
9. What methodological assumptions and approaches have been used?
10. What key concepts, variables or factors have been identified?
11. What are the agreements and disagreements between theorists on my topic?
What gaps in knowledge, theory or application of a methodology are there in my topic area?

Once you begin to formulate some answers to this group of questions, you have begun your review of the literature. As you gather a better understanding of your topic you will be able to interrogate your sources to find answers to the following questions:

What inconsistencies, shortcomings of contradictions are there in our knowledge of the topic?

What evidence is lacking, inconclusive or too limited?

What alternative approaches are there for understanding the topic which have not been used?

Your interrogation will enable you to state what research, theory and approaches have been unsatisfactory and, importantly, explain where there is a need for new research, theorizing or approach on the topic. A good search and review of the literature will provide you with:

- a state-of-the-art understanding of your topic;
- a means of mapping out the theoretical and methodological structure of the current knowledge on the topic;
- an analysis which enables you to compare and contrast approaches to the topic and to construct a new synthesis; and
- evidence for constructing a reasoned argument for your particular definition of and approach to the topic.
Given that a literature review will furnish you with the necessary topic and subject knowledge and means of justifying your approach to the topic, we can say a review is an absolute foundation for all research. Figure 6.1 provides an overview of how your search review can contribute to your research.

It is not only at the beginning of your research, however, that you will need your review. The literature is a resource to be used and referred to, as we show below, throughout the dissertation. Now we know the reasons for reviewing the literature we can look at how to find the literature.

Searching for relevant literature
A literature search can be systematic and precise or it can be random and chaotic. At masters level you are expected to be able to demonstrate the ability and capacity to undertake a systematic and precise search for relevant literature and to be able to manage the large amounts of information you will find. To help us in this science of librarianship has, over the past 150 years, developed some useful ways of organizing the knowledge of all subjects. Your academic and public libraries are manifestations of a highly organized system of schemes and tool which collect, categorize and make accessible human knowledge. By knowledge we refer to most of what has been written in various media (paper and electronic), statistical data, dictionaries and

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**FIGURE 6.1 THE LITERATURE AND YOUR RESEARCH TOPIC**

<table>
<thead>
<tr>
<th>Topic literature review will provide:</th>
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<tbody>
<tr>
<td>Definitions</td>
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<tr>
<td>History</td>
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<tr>
<td>Key studies</td>
</tr>
<tr>
<td>Theories</td>
</tr>
<tr>
<td>Concepts</td>
</tr>
<tr>
<td>Themes</td>
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<tr>
<td>Topic map</td>
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<tr>
<td>Key questions and problems</td>
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<tr>
<td>Debates and issues</td>
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<tr>
<td>Current situation</td>
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</table>

<table>
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<tr>
<th>Methodology literature review will provide:</th>
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<tr>
<td>Methodological assumptions</td>
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<tr>
<td>Debates and arguments</td>
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<tr>
<td>Issues</td>
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<tr>
<td>Problems</td>
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<tr>
<td>Data instruments</td>
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<tr>
<td>Research designs</td>
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<tr>
<td>Validity and reliability</td>
</tr>
<tr>
<td>Findings</td>
</tr>
<tr>
<td>Conclusions</td>
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<tr>
<td>Recommendations</td>
</tr>
</tbody>
</table>

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… and will help you to identify:

**Your topic**

**Your research**

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Knowledge gaps
Definitional problems
Theoretical problems

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Methodological problems
Empirical gaps
Political Issues
encyclopedias and all manner of ‘texts’ including ephemera. Your starting point for designing a search for literature relevant to your topic is with what are called guides to the literature.

GUIDES TO LITERATURE
Across the social and natural sciences and arts and humanities there are guides which list what tools can be used to search the literature. The main tools are indexes and abstracts. When an item is published, say an article in a journal, its details (called bibliographical details) are recorded in an index for the topic to which it belongs. So an article in the *British Journal of Sociology* will be indexed in *Sociological Abstracts*. Guides to the literature will tell you which indexes and abstracts are relevant to your topic and methodology. Useful guides include:

- *Your supervisor – she or he will know the literature and should be able to guide your efforts.*

These and other guides will help you to find indexes and abstracts for planning a literature search. Many of these tools are reference sources such as encyclopedias and dictionaries and these can be very useful in helping you to understand the vocabulary of your topic.

OPLANNING YOUR RESEARCH
It is certainly worth the time and effort getting to know how knowledge is organized. As a masters level researcher this is an expectation and what you learn will be skills and knowledge you can transfer into everyday life when you need to know something. A typical search has five main elements and these are described in Table 6.2. A good point to remember when planning your research is to make it cross-disciplinary.
### TABLE 6.2  INITIAL PREPARATION FOR A GENERIC LITERATURE SEARCH

<table>
<thead>
<tr>
<th>Task</th>
<th>What to consult and use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Define the topic</strong> Write down the main topic and what disciplines you think will have had something to say about it.</td>
<td>Consult the dictionaries and encyclopedias in the quick reference section to develop a list of key words that can be used to search the library catalogue, abstracts and indexes.</td>
</tr>
<tr>
<td><strong>2 Think about the limits of your topic</strong> Limit your search by placing parameters around the timeframe (dates), language(s), place and population.</td>
<td>Use materials from the encyclopedias and dictionaries to define the scope of your topic and to write a working title. Adapt the ‘Literature search profile’ to write down the criteria for your search – what to include and what to exclude.</td>
</tr>
<tr>
<td><strong>3 Identify the main reference tools for your discipline</strong> Identify the main indexes and abstracts and any other reference materials that cover the disciplines for your topic.</td>
<td>Use guides to the literature from the quick reference section of the library to identify relevant indexes and abstracts and reference sources, including Internet gateways. Check with reference tools the library holds that you can use.</td>
</tr>
<tr>
<td><strong>4 Think about the housekeeping</strong> Design a means of recording what you find and cross-referencing materials.</td>
<td>Use ring binders to store notes and index cards to record citations.</td>
</tr>
<tr>
<td><strong>5 Plan the sources to be searched and start your search</strong> List the sources you intend to search in the order in which you intend to search them.</td>
<td>Use your notes to construct a list of abstracts, indexes and other reference sources to be searched.</td>
</tr>
</tbody>
</table>

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Cross-disciplinary means that even if your topic is in, say, psychology, you should search indexes and abstracts in other subject areas, such as sociology. This will give you a broader base from which to select relevant items and offer different perspectives on your topic which you may wish to incorporate into your study. In many masters courses evidence of cross-disciplinary knowledge is an expectation.

**FINDING TOO MUCH OR TOO LITTLE AND IDENTIFYING CORE TEXTS**

With many searches of the literature you will merely ‘round up the usual suspects’ which are recognized as the core texts. This is not a problem in itself, but many research students often face a number of related problems when searching. These include:

- Finding too much: this problem is common and occurs when you use search terms which are too general and when you have not planned your search in sufficient detail. The way
to overcome this is to think very carefully about the terms and phrases you will use for your search and the relationships between them. Use dictionaries and encyclopedias to construct a list of terms, phrases and synonyms.

- Not finding enough: this problem is often the result of being too specific in what terms you use for your search. Every topic has a literature that can be searched. It is usually a matter of looking to find out where in the structure of the literature your topic has been classified. Your college librarian will be able to help you with this and show you how books have been classified and what vocabulary is used by the different journal indexing services.

Another method is to look at the references (or bibliography) of items you obtain on your topic. The items others have cited can lead you to other items which in turn have citations. As you analyze the references of more items on your topic, you will soon see what are the most commonly cited sources. These often form part of the core literature of a topic or discipline and will give you a resource to construct more detail using precise terms and phrases for systematic searching of the indexes including citation indexes.

Citation indexes record the citations an author has given in their article. Therefore when you know the bibliographic details of an article on your topic you can enter this into a citation index and locate it. Once found you can look at the citations and get the citation index to search for who else has used the article you are looking at as its citations. The main citation indexes are supplied on the *ISI Web of Science* by the Institute for Scientific Information (www.isinet.com/). Searching the citation indexes will help you to identify those items which are the main sources in the literature for the general and particular aspects of your topic.

**LOOKING FOR ALTERNATIVE LITERATURE ON YOUR TOPIC**

Your search skills and common sense should lead you to the main items on your topic. What it may not do is take you beyond the usual suspects. What we mean by this is that most topics within a particular subject field have a literature that has common citations. Being able to identify this literature involves exhibiting a set of technical skills which are standard expectations of the masters student. There is, however, an issue here concerning the expectations. Most topics have a literature that is cited by others. In finding what is already known about your topic you are finding what is sometimes accepted as the ‘knowledge’ by those recognized as the knowledgeable on your topic. To some degree the major refereed journals publish the articles of those recognized as the knowledgeable and therefore frame and give boundaries to the topic and this can often be seen in the structure of the literature. Hence there is, on occasion, literature which is outside the major journals and is rarely cited in the most commonly cited articles and books. A classic example in the social sciences is the literature from ethnomethodologist (Garfinkel, 2002: 121-35). When one looks at studies of work and organizations we often find a standard literature about organizations that does not include many references to studies of work. Figure 6.2 gives an indication of the phenomena by providing two lists of literatures: one you would normally find (taken from a very popular sociological textbook, Haralambos et al., 2000), and the other you may not.
While the conventional literature about organizations looks at concepts such as ‘power’ and ‘hierarchy’ and makes comparisons between ideal forms of bureaucracy, the alternative literature does not. It focuses on looking to see just how what people do in organizations can be described so as to show how they do what they do. The detail of what people do in everyday work to achieve a sense of ‘just what something is, means, should be done’ concerns those pursuing the alternative social science.
<table>
<thead>
<tr>
<th>Conventional literature about</th>
<th>Alternative literature of</th>
</tr>
</thead>
</table>
In many areas of social studies you will be able to find this kind of dual literature. This does not mean one is the right literature and the other wrong; it is simply that there are alternative ways of approaching a topic for research, understanding and interpreting events. As approaches, these literatures have a particular way of ‘doing’ understanding based on different starting points for the topic. Seeking out this kind of literature can be a little more difficult than searching and finding the conventional literature. A good starting point is the following source:

- The International Institute for Ethnomethodology and Conversation Analysis (IIEMCA http://www.iiemca.org/).

**Ethics of using the literature**

If you use another person’s work – text, diagrams, tables, data, pictures – without their permission or fail to give proper acknowledgment (attribution) to key ideas, phrases and words or change the arrangement of words in an extract you use, then you will certainly be breaking ethical standards of authorship and may be liable under the laws governing copyright. Here is some basic advice on avoiding becoming a plagiarist, how to cite your sources and what copyright means.

**AVOIDING BECOMING A PLAGIARIST**

In order to avoid the stigma and shame of being labeled ‘plagiarist’, here are some simple and easy-to-follow guidelines:

- Make notes on where you found the main ideas, words, phrases and other materials you intend to use so that you can include in your dissertation citations which attribute the origins of those ideas, words, phrases. This shows you have a clear understanding of ethical standards, that you have done you literature search and have been able to incorporate materials. It will also protect you from claims that your ideas cannot be traced and therefore from doubts about the quality of your work.

- Use a consistent style to cite the sources of your ideas, words, phrases. The two main styles or methods are the Harvard System and the Vancouver Method. Check to see if your institution has a preferred style. The basic principle of both methods is that you can attribute a source in-line and at the end of a line. Below are examples of the use of each as methods of citing sources in your writing (note that some recommend different ways of constructing the citation based on these two methods).

An example of the Harvard System:

Research on fathering has expanded in scope and breadth over the last several decades (e.g. Berman and Pedersen, 1987a; Pedersen, 1987). Nonetheless, investigations of and conceptualizations about men’s behaviors in and attitudes toward families are still sparse compared to studies of mothering and family processes, more generally. Indeed, relatively little is known about what residential fathers actually do, how their activities vary, and what the variability means (Harris and Morgan, 1991: 541; Lam and Oppenheim, 1989; Radin, 1994, 1988). Arguably, even less is known about the parental involvement of formerly married fathers who do not reside with their children: ‘the
parenting alliance has received modest empirical attention in both intact and divorces families’ (Gable et al., 1992: 285).

(Arendell, 2003)

Each of the references cited in the text would normally be listed as full citations at the end of the chapter or end of the dissertation in alpha order (A-Z).

For more information on using the Harvard System see:


An example of the Vancouver Method:

"Jhally’s conclusions are short and confident. He believes that his ‘empirical’ procedure has shown advertisements to be ‘structured along some definite lines, particularly audience codes’ (102). He claims to have uncovered not only two gender codes (103) but their sub-codes (104). Primetime television, according to Jhally, employs the codes of emotion, love, sensuality, pleasure … [it] is dominated by ‘magic’ codes, affecting products more directly than rational codes (105)."

(Hart, 1993)

Each number refers to a reference that can be found at the end of the chapter or end of the dissertation. Here is the list based on the extract above:

103 ibid: 131-139
104 ibid: 170
105 ibid: 171

For more information on using the Vancouver Method, see:

- Rudger Bolsover Institute Library, Zagreb at http://nippu.irb.hr/eng/vrl/citations.html
- http://www.le.ac.uk/library/teach/irms/irms71.html

give full bibliographical details of the items you use in your dissertation. This is normally done at the end of each chapter or at the end of the dissertation. These are your references. Include a reference to everything you have used to produce your dissertation and do not include any source
that has not made a contribution. Bolstering or padding the reference list with items you have not read or used is a violation of academic integrity and amounts to falsification of sources. In Table 6.3 you will see some basic advice on the style that may be used to cite your sources.

**Citation Style**
Correcting inaccurate citations is one of the most common copy-editing jobs for many dissertation students. This is normally a time-consuming and laborious task that can be largely avoided by paying close attention to getting the details of your citations consistent from the start. There are numerous guides to citation practice and you will find that most of them give different recommendations on how citations should be done. Before you start your project check out what style is acceptable, or even recommended, by your university. In this section we will look at some of the unusual items in the literature that you may have to cite. For more comprehensive guidance, see:


**Table 6.3 Citation Styles**

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples and notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>Hart, C., Shoolbred, M., Butcher, D. and Kane, D. (1999) ‘The bibliographic structure of fan information’, <em>Collectinguilding</em>, 18 (2): 81-90. Do not use ‘et al.’ but include all the authors. Some do not have quotation marks at the beginning and end of the article title.</td>
</tr>
<tr>
<td>Thesis</td>
<td>Hart, C. (1993) ‘The social production of an advertisement’. PhD thesis, Manchester Metropolitan University/J. Walter Thompson Ltd. DoRs: Dr D.W. Francis (Manchester Metropolitan University) and Dr. W.W Sharrock (Victoria University of Manchester). Give as many details as possible as theses are difficult to locate and obtain.</td>
</tr>
</tbody>
</table>

Use the full ‘and’ rather than the ‘&’. The article title is not capitalized, but the title of the journal is no need to use ‘pp.’ for pages.


The ‘&’ is in the title of the journal. Give the full internet address and the date you accessed it.


Some of these sites do not have an obvious author or data of publication so give all detail possible.

Source: Adapted from Sage Publications, Guidelines for Authors and Editors and APA Online www.apastyle.org/.

Table 6.3 includes the most common and some of the most difficult items to cite.

COPYRIGHT AND INTELLECTUAL PROPERTY
Copyrights along with trademarks and patents are ways of protecting what people create. Patents and trademarks ensure that the originator of a machine or process owns the rights of that machine or process. Patents require formal registration; copyrights do not, but are nevertheless governed by laws. Copyrights simply mean you have rights to what you write and this includes diagrams, tables, software and pictures; it also includes material you find on the Internet. To use another person’s work without their permission is an infringement of copyright law and you could be liable for payment of damages. It is therefore important to understand copyright. The problem with this is that the laws, regulations and practices of copyright are subject to continual change. For this reason check out the latest position by consulting one or more of the major information science gateways, such as BUBL (http://bubl.ac.uk). What follows is a brief guide to the present position.

Duration of copyright: Within the EU, author’s life + 70 years: none-EU, author’s life + 50 years.

Moral rights: Under UK law authors have moral rights to their work, which includes the right to be identified and not have their work degraded in any way, for example, distorted.
Fair dealing/use: Very little case law on this. In refers to the use of small parts of a publication in ways that do not affect its market potential or value, its meaning or quality in the case of picture reproduction. In the UK the Society of Authors and the Publishers Association have published guidelines in an attempt to quantify what may be considered fair use so that publications can be used without formal permission but must be fully acknowledged:

- single extract (prose): up to 400 words;
- series of extracts from the same work (prose): up to 800 words, of which no one extract shall exceed 300 words.

There are far more complicated guidelines for the use of poetry, music and lyrics and for use of these you are recommended to consult direct with the owner before you use them. The good news is that for most academic work, specially for dissertations, most authors and organizations are quite willing to give permission for you to use their materials.

Reviewing the literature you find

Now that you know a little about designing and implementing a search for relevant literature, we will look at what you do with what you have found. This section outlines some of the methods and techniques you can use depending on what kind of dissertation and research you are doing. It also tries to take into account the situation in which you are studying – full-time, part-time or distance learning. For more information on reviewing the literature, see:

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

**USING THE LITERATURE TO FORMULATE YOUR TOPIC AND WRITE AND INDICATIVE REVIEW**

One of the requirements before you begin your research is to research and write a proposal. In a later chapter we will look in more detail at the research proposal. Our concern here is with using the literature to formulate your topic in order to produce an Indicative Literature Review for inclusion in your proposal. An indicative review is normally three to six pages and covers only the basic items, usually about six. There are various in which you can produce an indicative review and the four we will look at, adopted from Cox (2002) and summarized in table 6.4, were developed for students with different kinds of research dissertation.

**Domain Mapping**

Mapping a domain with which you are familiar, even a specialist in, involves using a series of subject domain maps (mind maps) to identify potential areas for research.
Table 6.4  Methods of Analysis for producing an indicative review

<table>
<thead>
<tr>
<th>Method of Analysis</th>
<th>Useful for students who are:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain Mapping</td>
<td>Subject specialist</td>
</tr>
<tr>
<td>Problem analysis</td>
<td>Industry specialist</td>
</tr>
<tr>
<td>Structured Themed review</td>
<td>Distance learners</td>
</tr>
<tr>
<td>Context shaping</td>
<td>Specialist in new field</td>
</tr>
</tbody>
</table>

There are five stages in producing a domain map:

- **Stage 1** Prepare mind maps of the subject area using the course documentation (the lecture list, readings and so on).

- **Stage 2** Identify in the mind map those areas in which you have strengths and knowledge. These are your areas of interest.

- **Stage 3** Prepare a mind map for each area of interest using key text from the literature.

- **Stage 4** Review and evaluate each mind map and eliminate those which have the highest risk, that is, ones requiring more knowledge and skills than you currently possess or which have ‘data’ problems. Identify the domain that has the lowest risk factor and conduct a search and review of literature in this field.

- **Stage 5** Using the literature produce a detailed mind map of the selected domain, identifying issues, problems and opportunities for research.

You may include some author citations in your domain map, but not all the details of the studies from which the main and sub-categories have been taken. It is more economical to focus on the main concepts and positions and add the detail to the main review of the literature.

**Problem analysis**

Identifying a problem in a workplace situation can be done using the problem analysis technique. It is useful when one is a specialist and is looking to undertake a work-based dissertation. There are three basic stages in using problem analysis to define your research problem:

- **Stage 1** Identify from the current periodicals and trade literature concerns in your industry or organizational type. If required, assess these in terms of your own organization.
Stage 2  Undertake a search and review of available literature to find out the origins of the concern, what is being done, what has been done, what critiques have been made of what has been done, what evidence there is to support the concern and what opportunities there are for research into the concern.

Stage 3  Identify from your review an area for research or analysis and state what this is. Using the literature justify your aim in relation to a set of achievable objectives for a research project. Identify which elements of your course materials you will draw upon and how your research may contribute to the literature in general and understanding of the concern.

Note that the way in which problem analysis is presented here a distinction is being made between research undertaken in the workplace and research undertaken for the industry. The latter is being emphasized as a way of avoiding problems in the workplace, such as change of management, role or employment.

Structured themed review
When studying at a distance you are largely responsible for your own learning and this includes formulating a workable proposal for your research. Using a structured approach to identifying a theme for a topic can be one way in which you can systematically work through a relatively small body of literature to identify a potential topic. Typically, the literature you look at would be part of the reading for your course. You are therefore looking to find a topic form within the syllabus of the taught elements of your masters. Table 6.5 provides an example of the stages of doing a structured themed review over a five-week period (Cox (2002) does this over a 14-week period).

The weekly schedule can be an effective means of setting yourself deadlines for achieving a modest amount of work. You also know that you can ‘bounce’ ideas off your tutor, who can be expected to be a specialist in the field of the curriculum you are analyzing.

Context shaping
Students converting from one subject area to another using a masters as the means often to find context shaping a useful tool to identify research topics based on their prior experience and knowledge. The basic principle to the approach is to take an area with which you are familiar and analyze it to see how it can be used in a new area. The process usually involves a five-stage process of gradually refining, through exploration, what it is you already know to guide you into a new field:

Stage 1  Prepare a mind map of the skills, knowledge, qualities and interests you already have along with your career goals.

Stage 2  Identify potential areas for research based on your self-analysis. Using the literature from your course, identify themes which fit with your existing profile. Map out some of the themes to identify potential opportunities for research.
Stage 3 Using the same literature, define the scope of the different themes. Assess each theme for suitability in terms of how much you can use what you already have to take advantage of a research opportunity and what you would need to acquire in terms of new skills and knowledge. Select a theme that meets your needs based on your existing skills.

Stage 4 Map out the theme selected and identify potential primary and secondary research opportunities. Draft out general aims of intent for the research you have identified and assess what will need to be done (tasks) and what skills/knowledge you will need to acquire.

Stage 5 Using the literature, construct a justification for your research that includes reference to your existing knowledge and skills and what I required to supplement these to complete the research. State what the main aim is and write out the objectives for achieving the aim.

The main outcome of these and other techniques of using the literature is to enable you to produce an indicative review of the literature which demonstrates that you understand the topic and can justify your research.

EXTRACTING INFORMATION FROM YOUR SOURCES
Once you have begun to obtain some relevant items, you need to start reading them with a purpose. This means analyzing them to extract the kinds of information, argument, concepts, definitions, approaches, findings and conclusions relevant to your own topic or problem. In Doing a Literature review (Hart, 1998) I gave advice on reading to review and suggested that you use a range of tools and methods to record systematically your findings from the literature. In this section these have been adapted to show you a method of assessing different aspects of your literature and how to use it to construct a review. The scheme, shown in Table 6.6, illustrates the different kinds of information that you will be expected to extract from your literature. Some of the categories may not be relevant to your needs, but it is nevertheless good for you to be aware of them in order to say why they are not relevant to your research. The scheme in Table 6.6 is based on making a critical evaluation of six aspects of study.

Table 6.6 A SCHEME FOR THE SYSTEMATIC ASSESSMENT OF A LITERATURE

<table>
<thead>
<tr>
<th>Areas for assessment</th>
<th>Amplification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing the questions or hypotheses</td>
<td>What are the hypotheses or questions of the research? How we have these been expressed? Do they show any biases in the way they are expressed and have been tested? What variables or factors has the research identified for comparison or framing the problem? Are these adequate? What others could have been used and why?</td>
</tr>
<tr>
<td>Assessing the context of justification</td>
<td>How has the context been defined or implied? What influence has this had on framing the hypothesis or problem? Have alternative ways of framing the context been given or rejected? If not, what alternatives could you envision? Is the nature of the literature fully understood? Is this selective? How has it been used to formulate the context? Is the context based on a closed- or open-research design? What difference would an alternative make to the aims of the research and findings?</td>
</tr>
</tbody>
</table>
Assessing the methodology
Have the main methodological assumptions of the research tradition and approach been critically discussed? If not, what kinds of assumptions have been made about knowledge? In the design of the research, what is seen as valid data an why and how has this been obtained? Is the design coherent and systematic application of the methodology?

Assessing awareness of alternatives
Are alternative methodological traditions and approaches acknowledged? What limitations are recognized to the methodology used? Has alternative data been identified? If not, what kinds of data can you find and what does this mean for the research? Is the data, whether statistical or textual, coherent and adequately presented? Are there alternative ways it could have been presented? If so, how might these have influenced what significance could be made of it?

Assessing the findings or results
Are the reported findings or results consistent in terms of collection methods and any statistical methods used? What inconsistencies are identified and how are these explained? If a hypothesis was used, how has any significance been achieved? How are findings related to other studies? Are there any indications of selective presentation?

Assessing the conclusions and recommendations
What weight is given to the findings/results? What level of generalization is being used? Is this justified by the data and research design? Is the conclusion based only on the results, as it should be? Or are other factors, including values, introduced that are not in the data? Is there a sense of critical evaluation of the findings or is the conclusion presented as self-evident? Are recommendations (where given) clear, consistent and properly formulated? Do they cite what findings they are based on? What other conclusions can you draw from the data?

The principle on which table 6.6 is based is ‘interrogation’: as the knowledge base, the literature is subject to different levels of interrogation based on a series of questions. The questions to ask are a matter for you to decide, but they should be relevant to your topic and the purpose of your research. An important aspect of this is to ask questions which combine information extraction with justification. This means once you have the who, what, when and how, look to ask ‘Why?’, ‘Based on what, with what consequences?’ and ‘What if?’ Chapter 8 looks in more detail at the consequences of different research strategies.

<table>
<thead>
<tr>
<th>Theme 1: Managerial learning and work</th>
<th>Theme 4: Work-based action learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author/study date</strong></td>
<td><strong>Focus and sub-theme</strong></td>
</tr>
<tr>
<td>Shenhar and Renier (1996)</td>
<td>Modular approach to defining managerial work and roles so managers can self-assess complexities of own jobs and identify</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Title/Other Details</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Margerison and McCann (1996b)</td>
<td>Advocates self-profiling in eight areas of work so managers can work more effectively with others.</td>
</tr>
<tr>
<td>Oshagbemi (1995)</td>
<td>Discusses the nature of the reality of management work and how managers spend their time.</td>
</tr>
<tr>
<td>Margerison and McCann (1996a)</td>
<td>Profiles key communication skills and relates them to different approaches to problem solving and describes a self-assessment resource for personal and team development.</td>
</tr>
</tbody>
</table>

*Source: Adapted from Teare, 1999.*

**USING GRIDS TO ORGANIZE YOUR ANALYSIS**

It is necessary to have some means of organizing the information you extract from your literature. There are a number of ways of doing this, including ‘spider diagrams’ and tables which show the main themes in the literature. Table 6.7 shows a tabular approach in which the literature on supporting management learning in the workplace has been themed. Table 6.7 shows parts from two themes in the literature on action learning presented in tables by Teare (1999).

**WRITING AN INTEGRATED REVIEW OF LITERATURE ON YOUR TOPIC**

The result of your hard work, your reading, analysis and note taking, is the production of a literature review that is relevant to your topic or problem and the methodology you intend to use in your research. The kind of review you write will, of course, depend on the type of dissertation you are doing and the purpose of your research.
Both quantitative and qualitative aspects, including findings, are capable of integration into a review. With each kind of study and data there are, however, some points worth noting about integration, with quantitative data you will usually be attempting to integrate descriptive and analytical statistics such as means and modes along with correlations and significance. You will therefore need to have competence in using and applying statistical techniques. This may involve doing one or more of the following with the literature:

- **Showing the chronology of the topic or problem:** Tables and matrixes should portray the results of previous studies in chronological order. This will help you to show and describe the development of the problem and different ways in which concepts, variables, methods and techniques were applied.

- **Summarizing result of studies:** With studies conducted using the same method and techniques on sample populations exhibiting similar characteristics, you can aggregate the results using secondary statistical techniques. The technique involves producing a meta-analysis of data from existing studies. The techniques of meta-analysis have been developed since the 1970s and are now relatively sophisticated. Care should be taken with this and good advice and guidance can be found in:
  - *Synthesizing Research* (Cooper, 1998)
  - *Evidence-based Health Care* (Gray, 2001)
  - *Conducting Research Literature Reviews* (Fink, 1998)

- **Portraying results of studies:** Results from individual studies on the ‘same’ topic or problem can be presented in tables and matrices to summarize the key findings and characteristics of each study. The point is not to describe each study in turn, but to systematically identify similarities and differences among the studies. A methodological approach to using tables and matrices can be found in:
  - *Evaluating Social Science Research* (Black, 1993)

- **Critiquing studies:** The purpose of summarizing the literature is to provide an organized set of materials for critical evaluation. Look to evaluate the appropriateness of the research design, sampling techniques, measuring instruments, presentation of the data, statistical tests done and inferences made. Both Black (1993) and Gray (2001) provide detailed discussions on evaluating the quality of quantitative research.

- **Synthesizing critiques of studies:** The aim of most quantitative studies is to generalize on the basis of the use of representative samples. Using formal statistical techniques of analysis, especially multiple regressions, meta-analysis can produce meta-generalization (on 30 or more studies) and at the same time identify weaknesses in existing research and areas where there are issues about the quality of data. A good source of advice on synthesizing quantitative research is:
  - *The Handbook of Research Synthesis* (Cooper and Hedges, 1994)
In Example A below you can see a textual summary of research about the correlation of violence on television and violent behavior. We have selected this one because it is typical of many to be found on the Internet in that it exhibits typical failings of non-refereed publications. Read this for yourself before looking at what we have to say about it.

While Example A shows a selective summative integration of correlational studies on the topic, when using the data from such studies there are some basic points of good practice it fails to follow. The studies selected are presented in a chronology, which is good practice, but the review is too selective given the substantial literature on this topic. Little attention is given to contextual factors, making for differences between the studies, or to technical matters such as sample size, research design or statistical techniques used to analyze the data. No data, as such, is presented. The use of words like ‘true’ tend to be employed by those who have preconceived beliefs about something. In this case the selective use of studies and the rhetorical writing style indicate a preconceived position is being substantiated by the studies mentioned. Studies included are described in vague terms with no results being portrayed systematically. There is no attempt to make any evaluation of the studies; they are accepted at face value.

The synthesis of qualitative studies is a little more difficult than the synthesis of quantitative studies. The main reason for this difficulty is the different purposes of qualitative research. Qualitative studies are not normally aiming to make statistically based generalizations through the application of formal comparable techniques. This is not to say that qualitative research cannot produce generalizations, for clearly many do. The kinds of studies reflected here are those based on participant and non-participant observation, unstructured interviewing and use of non-statistical data sources for analysis. With care, it is possible to analyze qualitative studies on the same topic and draw out similarities and differences based on the use of concepts and approaches. Due to the difficulties of synthesizing qualitative studies, there are not many sources on how to do it; the following are some most useful:

- **Meta-ethnography** (Noblit and Hare, 1998)
- **The Qualitative Dissertation** (Piantanida and Garman, 1999)

Using the following set of headings we can organize our analysis and notes to provide the necessary materials for an evaluative integration of qualitative studies:

- **Show the chronology of the topic or problem**: Trace the chronology of studies and draw out of them the different ways in which the topic or problem was defined, how concepts were used and what methodological assumptions were employed.

- **Categorize the aspects of studies**: From the individual studies similarities in use of concepts, assumptions, data, perspective and standpoints can be extracted and grouped into categories. Diagrams can be very useful for portraying the categories and you will find throughout this book and in *Doing a Literature Review* (Hart, 1998).
- **Summarize results from studies**: A combination of tables and text can be used to summarize the key features and characteristics of the studies to highlight commonly used assumptions, arguments, conclusions and recommendations.

- **Critique the studies**: Critically evaluate and appraise what you find by examining the level of generalization offered, claims for validity and rigour, the influence of ethical and political standpoints, the implications and logical consequences of conclusions and/or recommendations of studies.

- **Synthesize the evaluation of studies**: From the critical evaluation you can identify a set of conclusions and recommendations which identify the issues that need to be addressed in future studies and which concepts, approaches and assumptions may be useful.

While Example A shows the use of some findings from a literature, there are many other uses of the literature at the beginning and throughout a dissertation. Example B shows the use of the literature in health care research to examine the definitions of the problem.

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**Rationale**
Reasons for investigating the topic, e.g. gap in existing knowledge and understanding; need to enhance definitions; need for theoretical development; lack of empirical studies – developed out of the literature. Discuss how your problem definition relates to the literature in order to justify your topic.

**Research design**
Methodological assumptions, purpose, aims, objectives, scope, data collection instruments, method(s) for analysis – developed out of the literature. Discuss how your research design relates to previous research and methodological assumptions for the study of the topic to rationalize your design.

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**Topic and methodological literature**

**Discussion, Conclusions, Recommendations**
Evaluate your research in terms of a brief discussion of the advantages and disadvantages of employing certain methodological assumptions, definitions, concepts, highlighting the degree of validity and reliability of your research design and how your findings contribute to an understanding of the problem. Based on the conclusions, if appropriate, make recommendations for resolving a problem, improving a situation or indicate what further research might be necessary in the area.

**Findings**
Your findings – discuss how they relate to other findings in the literature in terms of what they add to our understanding and how they attend to the issues of validity and reliability of the research design. Discuss how your research relates to or integrates with existing theories, definitions, and concept use, including your own research design with that used by others.

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**FIGURE 6.3 RELATIONSHIPS BETWEEN THE LITERATURE AND THE PROJECT ELEMENTS**
The literature review and your research

By now you will have realized that a search and review of the literature is an essential part of all research. Figure 6.3 shows how the literature can be used throughout a dissertation, in the rationale for your research, methodology, discussion of what you find and making inferences and conclusions. The latter you can relate back to previous research to show how your research makes a contribution to knowledge on the topic or problem.

THE ASSESSMENT ELEMENTS OF THE LITERATURE REVIEW

One way of approaching the ‘contribution question’ is to look at the ways in which your search and review is assessed. Table 6.8 and Table 6.9 outline some of the generic criteria often employed to assess the quality and contribution a review makes to a dissertation. Table 6.8 provides an overview if the technical and intellectual aspects expected of the literature review. Note the emphasis on citations, identifying key texts and argumentation. You might want to take these criteria and apply them to some of the extracts we have included in this chapter to gain some experience of applying, rather than meeting, formative criteria.

TABLE 6.8 GENERIC ASSESSMENT CRITERIA FOR THE LITERATURE REVIEW

<table>
<thead>
<tr>
<th>Literature review and citations</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent review of the literature, clear arrangement and selection of key texts, thorough,</td>
<td></td>
</tr>
<tr>
<td>consistent critical evaluation of main ideas, theories, arguments, approaches and findings</td>
<td></td>
</tr>
<tr>
<td>synthesized and focused on the topic puzzle. Excellent citations demonstrating consistency,</td>
<td></td>
</tr>
<tr>
<td>detail and accuracy.</td>
<td></td>
</tr>
<tr>
<td>Good review of the key texts with clear arrangement, may lack consistency of critical</td>
<td></td>
</tr>
<tr>
<td>evaluation or elements not fully synthesized or lacks of thoroughness, but is focused on the</td>
<td></td>
</tr>
<tr>
<td>topic. Good citations but may need more detail in some instances.</td>
<td></td>
</tr>
<tr>
<td>Adequate literature review identifying most of the key texts, but lacks thoroughness or</td>
<td></td>
</tr>
<tr>
<td>critical evaluative stance or clear arrangement and does not fully demonstrate ability to</td>
<td></td>
</tr>
<tr>
<td>synthesize ideas. Acceptable citations but lacking detail, consistency or accuracy in some.</td>
<td></td>
</tr>
</tbody>
</table>

In table 6.9 the criteria of argumentation are outlined. The purpose of this is to show that a literature review involves analysis and construction of an argument. The literature on a topic is analyzed and evaluated and from this a case id made for further research into the topic. It is therefore important to understand and be competent in analyzing the soundness of argument and to be able to construct a sound argument.
TABLE 6.9 ARGUMENTATION ASSESSMENT CRITERIA FOR THE LITERATURE REVIEW

<table>
<thead>
<tr>
<th>Argumentation and critical awareness</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent use of analysis and structures of argumentation to analyze and synthesize the literature, topic, methodology and data collected. Arguments are developed with evident clarity and logic in an unbiased and objective way. Extremely high standard of critical analysis and evaluation. Conclusions and/or recommendations directly linked to and from the findings.</td>
<td>Excellent</td>
</tr>
<tr>
<td>Good use of argumentation structures and techniques of analysis. May lack consistency across chapters and within chapters or clarity and logic or contain some unsubstantiated statements or make conclusions and recommendations not fully embedded in the results.</td>
<td>Good</td>
</tr>
<tr>
<td>Some attempt to employ argumentation, but at a basic level not demonstrating a sound understanding of argumentation analysis or its need throughout the dissertation or containing too many unsubstantiated statements and assumptions. Weak conclusions and/or recommendations poorly expressed.</td>
<td>Adequate</td>
</tr>
</tbody>
</table>

THE RESEARCH IMAGINATION AND REVIEWING

In part the search for relevant literature is a series of technical tasks. Being able to demonstrate, through application, the skills of doing an efficient and effective literature search is important because it is an essential prerequisite of research. But there is often a marked difference between those reviews based only on the application of technical criteria and those based on an imaginative use of technical ability. This difference was noted by C. Wright-Mills, who said:

The [research] imagination … consists of the capacity to shift from one perspective to another, and in the process to build up an adequate view of a total society and its components. It is the imagination … that sets off the social scientist from the mere technician. (1978: 232, orig. 1959)

By having a research imagination we mean using and developing practices and attitudes which take you beyond the ‘usual suspects’ in the literature. Going beyond the usual means actively seeking citations that are not usually found in reference lists or have not been fully discussed in an article or book. Once you have identified some minority citations, seek out the details others have overlooked or different. You often find that some of these citations lead to whole new literatures not represented in mainstream textbooks and articles in the key journals. They may also provide an added list of terms and phrases for your search vocabulary that can help you search the indexes for more of the ‘marginalized’ literature. Another effective technique is to take a walk around the library, serendipitously browsing, to see what is in books and journals you would not normally look at. You will find ideas and theories with which you may not be familiar that will often give you different views in what you have already read. Taking a broader
view is an essential attribute for all researchers. To do this you will need to take or develop an ‘open attitude’ to ideas and theories you are not familiar with and this includes exercising such attitudes and qualities as being proactive, positive, discrete, reflective, anthropological, inter-disciplinary, adaptable, sociological and willing to play, through experimentation, with ideas. Dismissing work because it seems too difficult to understand or having prejudicial prejudgments about an approach are signs that you need to develop a more open attitude or are intellectually too lazy to question the parochial restrictions of a perspective you find comfortable.

**SUMMARY OF THIS CHAPTER**

The purpose of this chapter has been to provide an overview of an important part of the research process – the search and review of the literature. The main points which have been made include:

- A search and review of the literature is essential for all research projects because it provides the basis for defining, framing and designing your research topic or problem.
- A literature review is an analysis and synthesis of ideas, arguments, concepts, definitions and theories from the literature.
- A literature search requires a creative attitude in order to maximize searching skills.
- There are many literatures, not just one, and so a search should encompass as much as possible in the time available.