Introduction

‘The first thing you must do is conduct a comprehensive literature review.’ This is one of the early tasks that many research students are asked to undertake by their supervisors. It can sometimes be frustrating, when you are keen to make a start on researching a particular problem that you have identified, to be advised to go and search for relevant work done by others, to identify pertinent theories, or just generally to read around the subject. However, it is important to explore the field in which you are going to do your research and gain a thorough awareness and understanding of current work and perspectives in the area so that you can position your own research clearly on the academic map of knowledge creation. An essential aspect of academic research is that it has connections with the work of others.

‘But where do I start?’ and ‘What exactly is a literature review, anyway?’ are common questions. The literature review is an activity which has many facets and it is not unusual to feel somewhat baffled when trying to work out exactly what is expected. To be tackled successfully, it requires thoughtful organisation and planning from the beginning. Before embarking on the challenge it is therefore helpful to give careful consideration to the following questions in the context of your own discipline:

- What is a literature review and what purposes does it serve in relation to your research?
- Why is it such a vital component of research?
- What are the various ways it can be realised in a dissertation or thesis?
- What does the process of completing a literature review involve?

I begin to address these questions here and elaborate further on the ideas throughout later chapters. The book as a whole contains:
The literature review

- extensive practical tips on how to prepare, organise and write your review successfully;
- extracts from a variety of different sample dissertations and theses to illustrate the points being suggested;
- tasks for you to do which involve observations and analysis of the dissertation and thesis text extracts and reflection on a range of aspects of your own research and literature review.

It can therefore be used as a self-study guide and either read from start to finish at the beginning of the research process to give you a comprehensive view of what is entailed or relevant chapters can be visited as you progress through your research. I would, however, recommend reading Chapters 1 to 5 as you begin the reading for your research because they focus on strategies for conducting efficient searches of the literature, and techniques for reading efficiently and organising the information you collect. Chapters 6 to 10 will become more pertinent when you prepare to write your review and will continue to be relevant as you draft and revise your work. Chapter 11 is a new chapter in this edition and discusses the purposes and processes involved in conducting a systematic literature review. This type of review differs from a thesis or dissertation literature review in that it is a stand-alone investigation usually conducted by a team of experienced researchers. The majority of the book, however, assumes that you are a student conducting research for an undergraduate, masters or doctoral programme or a supervisor of a student undertaking such research.

After working through the guide, I hope that you will have extended your awareness of the issues involved and be able to navigate your way through the maze of identifying and efficiently reading the pertinent literature, and then writing an effective literature review which blends in with your own research.

In this initial chapter, I define the term ‘literature review’; discuss the significance of the literature review in research; and suggest alternative ways that the literature review can be positioned in the final draft of a dissertation or thesis, giving the contents pages of dissertation and thesis case studies as examples.

What is a literature review?

When attempting a definition of this complex phenomenon, it is helpful to break it down into two parts: first, the finished *product* of the literature review which appears in the final draft of the dissertation or thesis, and second, the *process* that is involved in conducting a review of the literature.
The ‘literature review’ is the part of the thesis where there is extensive reference to related research and theory in your field; it is where connections are made between the source texts that you draw on and where you position yourself and your research among these sources. It is your opportunity to engage in a written dialogue with researchers in your area while at the same time showing that you have engaged with, understood and responded to the relevant body of knowledge underpinning your research. The literature review is where you identify the theories and previous research which have influenced your choice of research topic and the methodology you are choosing to adopt. You can use the literature to support your identification of a problem to research and to illustrate that there is a gap in previous research which needs to be filled. The literature review, therefore, serves as the driving force and jumping-off point for your own research investigation.

The term ‘literature review’ also refers to the process involved in creating the review that appears in your dissertation or thesis. It is an ongoing activity which begins when you pick up the first book or article related to your research and continues until the day you finish the final draft. Initially, your literature review helps you to formulate your research questions; at the same time, you begin to identify the relevant theories and related research studies to your own and the methodology that you might adopt for your research. Later, the literature assists you in the analysis and interpretation of your data. This book explores all aspects of the process including literature search strategies, systems for storing your key sources and notes, reading strategies, and techniques for writing the review.

Some additional definitions of the literature review from other authors are given below to show the varying emphases that different study guides put on its role and purpose.

Literature reviews should be succinct and … give a picture of the state of knowledge and of major questions in your topic area.

(Bell, 2010: 112)

[A literature review can be defined as] the selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed.

(Hart, 1998: 13)
The literature review

Typically, the literature review forms an important chapter in the thesis, where its purpose is to provide the background to and justification for the research undertaken.

(Bruce, 1994: 218)

[The purpose of the literature review] is to locate the research project, to form its context or background, and to provide insights into previous work.

(Blaxter et al., 2010: 124)

[A literature review should] demonstrate … a fully professional grasp of the background theory to your subject.

(Phillips and Pugh, 2010: 64)

[In a literature review a writer] extracts and synthesises the main points, issues, findings and research methods which emerge from a critical review of the readings.

(Nunan, 1992: 217)

[The literature review should be] a coherent argument that leads to the description of a proposed study.

(Rudestam and Newton, 2007: 63)

From these definitions and quotes, we can see that the literature review serves many different purposes and entails a wide variety of activities. It is therefore not surprising that it may seem a formidable task – particularly at the beginning. However, a thoroughly researched and well-written review can be both an exciting and a rewarding experience.

The literature review at different degree levels

Chris Hart (1998: 14–25) summarises the differences in the characteristics of a literature review at different levels of study and outlines the criteria for a successful review. Table 1.1 is taken from his book Doing a Literature Review: Releasing the Social Science Imagination.

Jerry Wellington et al. (2005) discuss the professional doctorate and the role of the literature review, in particular in relation to the EdD thesis. They suggest that a literature review for an EdD degree is likely to be more professionally oriented than for a PhD thesis. It is also likely to be shorter as the
usual length of an EdD thesis is about 50,000 words, in comparison to approximately 70–80,000 words in a PhD thesis.

It is also relevant to mention here that there are other types of literature review which are not undertaken as a stepping stone for a piece of primary research. I’ll refer to these two main alternatives as: 1) a stand-alone review and 2) a systematic literature review (see Chapter 11). A stand-alone review is a self-contained literature review on a particular topic which could be conducted for an undergraduate or postgraduate module assignment (e.g. a review on learner autonomy for an education assignment). An entire dissertation or thesis could also be a stand-alone review if it involves an in-depth critical exploration of the literature in a specific area as opposed to being a project including primary data collection and analysis. On the other hand, as mentioned earlier in this chapter, a systematic review is not usually part of a student’s assessed degree work. It is a professional and rigorous undertaking which synthesises findings from a sizeable number of individual studies on a topic often with a view to informing a policy or health treatment. Search strategies, article selection, and synthesis and analysis of data are all documented and transparent. I discuss this process in more detail in Chapter 11.

The main focus in this book is on a literature review which leads into a research project for a university degree programme and the final written version appears usually as a chapter or chapters in a dissertation or thesis. Bearing in mind the differences highlighted in Table 1.1, there are some general
principles which can be applied to the process of doing a literature review at all levels and for all degree types, and it is the intention of this book to provide such guidance and suggestions on practice.

**Why is it important to undertake a literature review as part of your research?**

When you first decide on the problem you think you want to investigate for your research, you may not be thinking extensively about the wider context. But your research is a small piece in a complicated jigsaw puzzle; it does not exist in isolation. It is dependent on what others have done before and you will contribute to an ongoing story or debate. Your reader therefore needs to know about the whole jigsaw puzzle and not simply the shade and shape of your particular piece. In a literature review, you are contextualising your work; you are describing the bigger picture that provides the background and creates the space or gap for your research.

**Where do we find the literature review in a dissertation or thesis?**

The literature review often appears as a distinctive chapter or a group of chapters in the final draft of the dissertation or thesis. The titles for these chapters vary and can often be topic related instead of being called ‘the literature review’. However, it is also possible that the literature review may be integrated throughout the whole thesis and a single chapter is not identifiable. In the latter case, it does not mean that a literature review has not been completed as it is an integral part of all research. The researcher has simply chosen to use the related literature in a more integrated way throughout the thesis. This approach is particularly likely to be the case in research which is based on an analysis of texts and documents as is the case in the fields of history, English literature or biblical studies. Although the extracts from dissertations and theses shown in this book are from identifiable ‘literature review’ chapters, the guidance offered is also relevant for the integrated literature review as the processes which can be adopted are similar.

How the literature review may be integrated in different theses where there are identifiable literature review chapters and/or sections is illustrated below. There are two main approaches: dedicated and recursive. In the first approach, the literature review is included in a chapter or series of chapters, frequently with topic-related titles, near the beginning of the thesis. It often begins in the introduction and continues in one or more subsequent chapters. In some fields
A doctoral student in a School of East Asian Studies at a UK university, Key-young Son, was conducting research into President Kim Dae-jung’s Sunshine Policy in South Korea. He was investigating strategies of engagement with North Korea and theories of state identity changes which have enabled relations between North and South Korea to improve. He wrote an extensive literature review (the contents page appears below). In a thesis consisting of eight chapters (363 pages), the literature review extended over three chapters and was 144 pages in length (40 per cent of the thesis).

In the first literature review chapter, he explored the political theories of ‘containment’ and ‘engagement’ in relation to the Cold War. In the second chapter, a theoretical framework for his thesis was established based on the concept of ‘comprehensive engagement’. And in his final literature review chapter, he described the historical context for his study by giving an overview of the changing relationship between North and South Korea. This theoretical and historical overview created a context in which to situate the detailed investigation of President Kim Dae-jung’s Sunshine Policy in South Korea between 1998 and 2003.

Key-young shows in detail where his research is positioned within the field of research on International Relations. He does not simply tell his reader about the particular events in the Korean Peninsula’s history which relate to the Sunshine Policy. He explains the theories he is using to interpret the events and gives a historical overview of the significant events which have created the context in which the Sunshine Policy was implemented.

Contents
Chapter 1: Introduction
1.1 Introduction
1.2 Research Questions and Objectives
1.3 Hypotheses
1.4 Approach, Methodology and Contribution
1.5 The Structure of the Thesis

Chapter 2: Containment and Engagement
2.1 Introduction

(Continued)
The literature review

(Continued)

2.2 Containment and Engagement in the Cold War Period
   2.2.1 Historical Overview of Containment
   2.2.2 Theories of the Cold War
2.3 Containment and Engagement in the Post-Cold War Period
   2.3.1 ‘Rogue States’
   2.3.2 Economic Sanctions
   2.3.3 Strategies of Containment and Engagement
2.4 Conclusion

Chapter 3: The Concept of Comprehensive Engagement: theoretical framework
3.1 Introduction
3.2 Three Levels of Comprehensive Engagement
   3.2.1 The Domestic Level: identity shifts
   3.2.2 The Inter-State Level: the status quo
   3.2.3 The Global Level: integration
3.3 The Goals of Three-Level Engagement
   3.3.1 National Goals: institutionalization and federalization
   3.3.2 International Goals: resocialization
3.4 The South Korean Decision-Making Process
   3.4.1 Actors
   3.4.2 Information Processing
   3.4.3 A South Korean Model of Crisis Prevention
3.5 Conclusion

Chapter 4: Historical Overview of the Korean Divide: structure and norms
4.1 Introduction
4.2 North Korea: structure and norms
4.3 South Korea: structure and norms
4.4 Conclusion

Chapter 5: Case Study I: The Sunshine Policy and North Korea’s External Relations
Chapter 6: Case Study II: Hyundai’s Mt Kumgang Tourism Project
Chapter 7: Case Study III: North Korea’s Nuclear Weapons Programmes
Chapter 8: Conclusion

Source: Son, 2004: ii–vi
Example 1.2 Contextualising your research

The following example is from an MPhil to PhD transfer paper. This is a report which is an integral part of the PhD process for the majority of doctoral students at UK universities. The transfer or upgrade paper (it is known by a variety of different names in different universities) is usually submitted approximately one year after starting on a full-time research degree programme. It typically takes the form of an extended research proposal and outlines the background, aims and research questions, significant and relevant literature, and the proposed methodology of the PhD research. It serves as a milestone when both tutors and the student can reflect on and assess progress and decide whether the student is ready to proceed with the research on a PhD programme.

In this example, Hannah is conducting research in the area of children, food and health. The study has been prompted by a concern with childhood obesity. After a brief introduction where she introduces the topic of obesity and children's eating practices (see contents page below), Hannah includes the literature review in the second section. It is 39 pages in length out of a total of 71 for the whole paper, i.e. it comprises 55 per cent of the report. The literature review is divided into six sub-sections including an introduction and conclusion. The four main content sections discuss and critically analyse literature from a range of disciplines all of which inform Hannah's research on children's perceptions and understandings of health and food.

In the first section, Hannah introduces her theoretical approach to research with children by exploring the literature which argues that the child's voice and perspective is essential. Then, she synthesises research on children as consumers, and identifies a need for further work investigating how children interpret the different messages around them in a range of media and social contexts. After this, she reviews empirical studies which have reported on children's perspectives on food and highlights their limitations; by doing this, Hannah begins to pave the way for her own focus. Finally, the significance of socio-economic position is explored.

Through a critical analysis of the literature under these four headings, Hannah has created a context for her own study and positioned herself as a particular type of researcher in relation to research with children. She has drawn attention to key issues, such as children as consumers and socio-economic position, which will underpin her investigation. She has also emphasised the limitations in previous empirical studies in the field to justify the need for her own.

Contents

1. Background
   1.1 The childhood obesity epidemic

(Continued)
The literature review

(Continued)

1.2 The aetiology of childhood obesity
1.3 Tackling childhood obesity
1.4 Children’s eating practices
1.5 The role of the school
1.6 The role of the family

2. Literature Review

2.1 Introduction

2.2 Changing perspectives on children and child health
  2.2.1 Children in the dominant framework
  2.2.2 Children in the new paradigm
  2.2.3 Key concepts of the new paradigm
  2.2.4 Conclusion

2.3 Children as consumers
  2.3.1 Introduction
  2.3.2 ‘Kid Empowerment’
  2.3.3 ‘Toxic Childhood’
  2.3.4 Towards a different focus
  2.3.5 Food
  2.3.6 Conclusion

2.4 Children and healthy eating
  2.4.1 Introduction
  2.4.2 Children’s knowledge of ‘healthy’ and ‘unhealthy’ food
  2.4.3 Categorising foods
  2.4.4 Sources of knowledge
  2.4.5 Children’s preferences
  2.4.6 Children’s perceived degree of control
  2.4.7 Limitations of studies
  2.4.8 Conclusion

2.5 Socio-economic position (SEP) and children’s food and eating practices
such as medicine, the complete literature review may appear as part of the introduction under suitable headings and subheadings. Many doctoral theses, in particular, are made up of a number of different research studies which although independent, are connected by the overarching umbrella of the research topic. In these cases, the second approach is more appropriate, with the literature review likely to reappear at various points in the thesis. It begins in the introduction and then continues at the start of each chapter which presents a different study or group of studies. The different areas covered in the literature review for each study are generally referred to in the thesis introduction where the overall background to the research is provided. Examples of both organisational approaches, taken from the contents pages of PhD theses and an MA dissertation, illustrate the various ways in which the literature review can be integrated into the whole thesis (see Examples 1.1–1.7).

**Approach 1: Dedicated chapter or chapters to the literature review**

In Examples 1.1 above and 1.3 below the literature review appears in a chapter or series of chapters with topic-related titles near the beginning of the
The literature review
dissertation or thesis. Example 1.2 above and Examples 1.4 and 1.5 below illustrate how there is a dedicated chapter immediately after the introduction which actually has the title ‘Literature Review’.

Example 1.3 A dedicated group of chapters to the literature review

Eileen Lee conducted research in the field of sociolinguistics looking at language shift and language revitalisation among speakers of a specific Creole which is used within a small community in Malaysia. (A creole is a language in its own right which has its origin in extended contact between two or more different language communities. The creole incorporates features of each of the original languages.) Eileen’s literature review begins in Chapter 1, the introduction, with the background historical context of the language, the community where the Creole is spoken, and the national policies which have affected its use. She examines the findings of previous research studies in the field and explains how her research is different from and extends previous research on this particular language. In Chapter 2, she discusses the relevant theories and concepts related to language shift and maintenance which underpin the research and examines three different approaches to the study of language shift in linguistic minority communities. In the third chapter, she explores theories for ‘reversing language shift’ and considers the role of language planning in the process of revitalisation of endangered languages. These three chapters provide the background which then lead into the description of the methodology, data collection, findings and conclusions.

Contents
Chapter 1: Introduction
  1.0 Introduction
  1.1 [The Creole]
    1.1.1 The origin and influence [of the Creole]
    1.1.2 A brief description [of the Creole]
    1.1.3 Past research [on the Creole]
  1.2 The present study
  1.3 The … speech Community
    1.3.1 Sociohistorical background
    1.3.2 The … settlement
  1.4 Multiculturalism and bilingualism in Malaysia
    1.4.1 Ethnic and language blending [in the community]
1.5 Structure of the thesis

Chapter 2: Language shift and endangerment
  2.0 Introduction
  2.1 Key terms and concepts: language endangerment, language shift, language maintenance
     2.1.1 Language endangerment
     2.1.2 Language shift
     2.1.3 Language maintenance
  2.2 Approaches to the study of language shift (LS) in linguistic minority communities
     2.2.1 Investigating LS through domains
     2.2.2 Investigating LS through behaviour
     2.2.3 Investigating LS through bilingualism
  2.3 Summary and conclusion

Chapter 3: Reversing language shift (RLS) and revitalization
  3.0 Introduction
  3.1 Reversing language shift theory
     3.1.1 Intergenerational transmission of the mother tongue
     3.1.2 Diglossia in the graded intergenerational disruption scale (GIDS)
     3.1.3 Application and critique of the GIDS
  3.2 Key terms in RLS: language revival, language reversal, reclamation, renewal, revitalization
     3.2.1 Language revival, language reversal, reclamation, and renewal
     3.2.2 Revitalization
  3.3 Language planning
     3.3.1 Status and corpus planning
     3.3.2 Prior ideologica clarication
  3.4 Summary and conclusion

Chapter 4: Research design and methodology

Chapter 5: Reported language choice and reported language use at the … settlement

Chapter 6: Language choice and language use in the home and neighbourhood domains of the … settlement

Chapter 7: Language maintenance and competing priorities at the … settlement

Chapter 8: Findings and conclusion

The literature review

Example 1.4 A dedicated single chapter to the literature review

In this example from a PhD thesis in the field of education, Ling Feng explores curricula for education for sustainable development in both China and the UK through three higher education case studies. As well as having a dedicated chapter with the title ‘Literature Review’, her integration of the literature begins in the Introduction where she clarifies how she is using key terminology for her research: education for sustainable development and the curriculum; she highlights the urgency of sustainable development issues in both the UK and China; and she justifies her research in relation to higher-education institutions, sustainable development and cross national research. For all of these purposes, she cites sources to support her arguments.

In the second chapter, the literature review, she explores the concept of Sustainable Development in much greater depth and gives an international historical overview; the theme of curricula is debated by examining four important curriculum perspectives in relation to Education for Sustainable Development; she discusses the current contexts in Chinese and British Higher Education Institutions with regard to Education for Sustainable Development; and the significance of knowledge sharing between countries. She draws on three of the curriculum perspectives discussed to provide the theoretical underpinnings for the case study research which follows in subsequent chapters.

eg

Contents

Chapter 1: Introduction

1.1 Background of the research
1.2 The research questions and design
1.3 The justification of the research
1.4 Outline of the thesis

Chapter 2: Literature review

2.1 Introduction
2.2 The notion of sustainable development (SD)
Introduction

2.2.1 Oxymoron?
2.2.2 Business as usual
2.2.3 Intragenerational equity
2.2.4 Anthropocentrism versus ecocentrism
2.2.5 Complexity and uncertainty
2.2.6 A way forward
2.2.7 Changes occurring

2.3 Historical review of education for sustainable development (ESD)

2.4 Different perspectives on ESD
  2.4.1 Technical perspective on ESD
  2.4.2 Socially-critical perspective on ESD
  2.4.3 Liberal-progressive perspective on ESD
  2.4.4 Postmodern perspectives on ESD

2.5 English and Chinese higher education and ESD
  2.5.1 English higher education and ESD
  2.5.2 Chinese higher education and ESD
  2.5.3 Similarities and differences

2.6 Issues of knowledge exchange

2.7. Conclusion

Chapter 3: Methodology
Chapter 4: Research findings
Chapter 5: Discussion
Chapter 6: Conclusion
References
Appendices

Source: Feng, 2010: i–iii
The literature review

Example 1.5 A dedicated single chapter to the literature review

This example is from a masters dissertation in the field of second language learning. Analeen Moore was researching the influence of formal pronunciation instruction on the English pronunciation of a group of adult German students. Her literature review appears as a single chapter after the introduction and before she begins to describe her experiments in the subsequent chapter. She starts off the review by giving a historical overview of the changes in emphases that pronunciation instruction has received in the field of English as a foreign language (EFL) teaching, and then moves on to define the term ‘comfortable intelligibility’, which is important when considering target pronunciation. She subsequently examines the effects of instruction, first on second language learning generally and then, more specifically, on the improvement of pronunciation in the target language. In the final part of the review, she defines the features of pronunciation that are analysed in the study when looking at the developments in the pronunciation of the learners in the sample.

eg

Contents
Introduction
Chapter 1: Literature Review
  1.1 Historical background
  1.2 Target pronunciation and intelligibility
  1.3 Research into the effects of instruction
    1.3.1 Second language research
    1.3.2 Pronunciation research
  1.4 Specific features of pronunciation
    1.4.1 Strong and weak forms of words
    1.4.2 Contractions and elision
    1.4.3 Assimilation
    1.4.4 Liaison
    1.4.5 Stress
    1.4.6 Intonation
  1.5 Summary
Chapter 2: The experiment

Source: Moore, 2001: iii–iv
Approach 2: A recursive literature review

When a thesis consists of a number of different research studies, the literature review is likely to begin in the introduction and then continue at the start of each of the different studies. The reviews before the individual research studies generally elaborate in more detail on the topics raised in the introduction.

Example 1.6 A recursive literature review

This example is from a PhD thesis in the field of psychology for which a series of different studies were conducted to investigate how people self-regulate their behaviour in order to achieve their goals. There were nine research studies in total, which were grouped in four chapters (Chapters 2 to 5). In the introduction, the author begins to discuss previous research and theories related to the regulation of behaviour, goals, motivation and implementation intentions. In subsequent chapters, these areas are revisited in more detail; for example, in Chapter 2 he elaborates on the theories of behavioural intentions and in Chapter 3 more detail is given on goal-achievement models. As before, in the example contents page shown below, a number of the more detailed subheadings have been omitted.

Contents
Chapter 1: Introduction
  1.1 The influence of goals on behaviour
     1.1.1 Behavioural intentions
     1.1.2 Unconscious goal pursuit
  1.2 The intention-behaviour ‘gap’ and the problem of volition
  1.3 Implementation intentions
     1.3.1 Accessibility of the specified cue
     1.3.2 Strength of the cue-behaviour association
  1.4 Plan of the thesis
Chapter 2: Meta-analysis of intention-behaviour relations
  2.1 Behavioural intentions as the cause of behaviour
  2.2 What other variables influence whether intentions cause behaviour?
  2.3 Study 1
     2.3.1 Method
     2.3.2 Results
(Continued)
The literature review

(Continued)

2.4 Discussion

Chapter 3: Integrating theories of goal-achievement

3.1 Overview

3.2 Models of goal-achievement

3.2.1 Theory of planned behaviour

3.2.2 Goal setting theory

3.2.3 Theory of self-regulation

3.2.4 Strength model of self-control

3.2.5 Emotion

3.2.6 Social support and performance feedback

3.3 Study 2

3.3.1 Method

3.3.2 Results

3.3.3 Discussion

3.4 Study 3

3.4.1 Method

3.4.2 Results

3.4.3 Discussion

3.5 General discussion

Chapter 4: The interplay between motivation and volition

4.1 Overview

4.2 The role of goals in determining the effectiveness of implementation intentions

4.3 Study 4

4.4 Study 5

4.5 General discussion

Chapter 5: The mechanism underlying implementation intentions

5.1 Overview

5.2 Study 6

5.3 Study 7

5.4 Study 8

5.5 Study 9

5.6 General discussion

Chapter 6: Conclusions

Example 1.7 A recursive literature review

In this example from the field of civil and structural engineering, the researcher completed three different studies in the area of groundwater contamination, each of which has each been published separately in a peer-reviewed journal. These appear in Chapters 2, 3 and 4 of the PhD thesis. The literature review was visited briefly in the Introduction (Chapter 1) and then elaborated on in further detail in the introductions of the three chapters (Chapters 2, 3 and 4) which describe the different research investigations. In this thesis, the different parts of the literature review are fairly concise and there are no headings and subheadings within the introductions to identify different topics within the literature review. However the adapted contents page below gives an idea of how the review is spread over the three different pieces of research. (Please note, detailed subheadings under ‘Method and modelling procedures’, and ‘Results and discussion’ have been omitted from the original in the example below.)

Contents

Chapter 1: Introduction
  1.1 Background
  1.2 Objectives
  1.3 Scope of work
  1.4 Structure of thesis

Chapter 2: Modelling kinetic processes controlling hydrogen and acetate concentrations in an aquifer-derived microcosm
  2.1 Introduction
  2.2 Method and modelling procedures
  2.3 Results and discussion

Chapter 3: Insights gained through multispecies field scale reactive transport modelling driven by biodegradation complexity
  3.1 Introduction
  3.2 Modelling methods
  3.3 Results and discussion
  3.4 Conclusions

(Continued)
The literature review

(Continued)

Chapter 4: Advantages of using adaptive remeshing in parallel for modelling biodegradation in groundwater
4.1 Introduction
4.2 Model formulation
4.3 Test cases
4.4 Multi-dimensional field scale simulations
4.5 Advantages of parallel processing
4.6 Advantages of sparse matrix storage approach
4.7 Advantages of adaptive remeshing
4.8 Conclusions
Chapter 5: Conclusions


Structuring your literature review

The above examples of contents pages show how different writers position their literature reviews within the doctoral thesis or masters dissertation and how they break down the related literature into themes or topic areas. As your reading and research progresses, you will find that you gradually begin to categorise your own work in this way, with the final organisational structure and fine-tuning of your literature review being decided by the focus of your research. This process is examined in more detail in Chapter 6.

Task 1.1 Choosing a literature review approach

Ask your supervisor to recommend two or three recently completed dissertations or theses in your discipline. After looking at these examples, answer the following question. Which of the alternatives for positioning the literature review within a dissertation or thesis, described in this chapter and listed below, seems to be most common in your field?

- The literature review is a distinct chapter or chapters near the beginning of the thesis or dissertation.
- The literature review is introduced in general terms in the introduction and revisited in more detail at the beginning of different research studies in the dissertation or thesis.
Reference to the related literature is interspersed throughout the whole thesis or dissertation and there is no specific literature review chapter.

Now think about your own research topic.

As a way of helping you choose which alternative may suit your own work, think about the advantages and disadvantages for each alternative in relation to your own topic.

As your work progresses consider which alternative you are most likely to adopt for your own literature review and dissertation or thesis. What are your reasons for making this choice?

To summarise, this initial chapter has considered:

- the overall definition of a ‘literature review’;
- a consideration of different types of literature review;
- the literature review’s importance in relation to postgraduate research;
- where the literature review may be positioned in the final draft of a doctoral thesis or masters dissertation.

Overview

This introductory chapter has set the scene for the more detailed aspects of the literature review which are examined in the chapters that follow. In Chapter 2, we look further at the multiple purposes of a literature review with extracts from theses and dissertations to demonstrate how the different purposes can be achieved. In Chapters 3, 4 and 5 we consider a range of up-to-date strategies for efficient information searching, evaluating source material, reading and note taking, keeping records, organising source material, and avoiding plagiarism and copyright infringement. Chapter 6 reflects on the writing process and how one can go about organising and structuring the information in a literature review. Referencing conventions are explored in Chapter 7, with coverage of the way references are integrated into the text and how they appear in the bibliography. There is a discussion about the meaning of plagiarism and some examples of the practices that constitute plagiarism. We also consider disciplinary differences in citation patterns and styles. In Chapters 8 and 9, we reflect on what it means to be critical in a
The literature review and think about techniques for foregrounding writer voice when integrating sources into one’s writing. Chapter 10 discusses the importance of constant revisions and updates of a literature review. We consider the links that are likely to arise between a literature review undertaken at the beginning of the research process and the analysis of the data and discussion of implications arising from your own work. Finally in Chapter 11, the process of conducting and critically appraising a systematic literature review is explored. As part of this discussion, we clarify the differences between a dissertation or thesis literature review and a systematic literature review.

This guide can be used as a reference tool throughout your research, with you visiting particular chapters at the time they are most relevant to you and your work. The chapter aims are clearly stated at the beginning of each chapter to enable you to identify the parts that you need at different stages of your research. Alternatively, you can read the book in its entirety to gain an overview of the whole process. Whichever approach you adopt, the suggestions and examples given should provide you with a basis on which to conduct your own literature review and decide how it can be most effectively integrated into your dissertation or thesis.