

# CONTENTS

<i>List of Contents</i>	xiv
<i>About the Authors</i>	xxi
<b>Preface</b>	xxiii
Chapter Overview	xxiv
Working your way through this book	xxv
Examples of Review Challenges and How This Book Can Help	xxix
'I have a general review topic in mind, but I don't know where to focus'	xxix
'I have no idea how much literature exists on my review topic'	xxix
'I am confident I can find and select studies for my review; however, I am not sure how to assess the quality of the evidence base'	xxx
'I am not sure how to select an appropriate method of synthesis for my review'	xxx
'I realise that I will need to clearly report my methodology when I write up my review. Should I make notes as I go along to aid with this?'	xxx
Summary	xxx
Frequently Asked Questions (FAQs)	xxx
FAQ 0.1 Is this book for me?	xxx
FAQ 0.2 I may not want to undertake a full systematic review but I want to make my review more systematic. How can I do this?	xxxi
FAQ 0.3 How do I find out the meaning of unfamiliar terms used in the book?	xxxi
FAQ 0.4 How can I view images used in this book?	xxxi
FAQ 0.5 I've completed one of the exercises in the book. Where can I find the answers?	xxxi
Suggestions for Further Information	xxxi
Online Resources	xxxii
<b>1 Meeting the Review Family: An Overview</b>	<b>1</b>
In a Nutshell – Meeting the Review Family	1
Key Terms Explained	1
Introduction	2
What is a Literature Review?	2
Why be systematic?	3
What does it mean for a review to be systematic?	3
When Do I Do a Literature Review?	5



Meet the Review Family	6
Traditional review family	6
Systematic review family	7
Review of reviews family	8
Rapid review family	10
Qualitative review family	11
Mixed methods review family	12
Purpose-specific review family	13
Why Not a Literature Review?	15
What is not a Literature Review?	15
How Do I Prepare to Do a Literature Review?	16
Practical step 1 – choose your topic	16
Practical step 2 – think about your intended purpose	17
Practical step 3 – think about your intended audience	17
Practical step 4 – where will the literature be found?	17
Practical step 5 – what will the literature, and the data, look like?	17
Going Forward	18
Summary	18
Toolbox – Published Guidelines/Guidance for Different Review Types	19
Frequently Asked Questions (FAQs)	20
FAQ 1.1 What if I haven't identified a review topic yet?	20
FAQ 1.2 What if I don't know which type of review is most appropriate for my topic?	20
FAQ 1.3 Where can I find additional resources?	20
Suggestions for Further Information	20
<b>2 Getting Started on Your Literature Review</b>	<b>22</b>
In a Nutshell – Getting Started on Your Literature Review	22
Key Terms Explained	22
Introduction	23
Why is the Literature Review so Important?	24
Where Do I Start?	25
Where Does the Literature Review Fit Within the Context of Research?	25
What types of research question are suitable for the literature review?	26
Why Review the Literature?	27
Is my review really necessary?	28
A Brief History of Research Synthesis	29
What is the Place of Theory in the literature review?	30
The traditional narrative review, the systematic review and 'systematic approaches'	32
Clarification of Terminology	34
Introducing the SALSA Framework	36
Systematic Approaches	36
How Do I Plan and Conduct My Literature Review?	40
Time	41
Quality	43
Money	43
Managing Your Literature Review	43
Project management challenges	46



Updates to Existing Reviews	46
At a glance – review update	48
Converting Your Review to a Different Format	50
Skills and resources	50
Study skills and techniques	51
What generic skills will I require for my review?	51
How do I gain needed skills in systematic approaches?	52
Stages of the literature review	55
Tools to support the review process	62
Avoiding common pitfalls	63
Summary	64
Key Learning Points	64
Frequently Asked Questions (FAQs)	65
FAQ 2.1 Should I always aim to be ‘systematic’ when conducting my literature review?	65
FAQ 2.2 If all reviews are ‘systematic’ should I call my review a ‘systematic review’?	65
FAQ 2.3 Do I need a minimum amount of literature to conduct a literature review?	65
FAQ 2.4 Must I only include high-quality literature or particular study types within my literature review?	65
FAQ 2.5 Should I update an existing review?	66
FAQ 2.6 Will updating a review be cheaper than the original review?	66
FAQ 2.7 What are the main things that could go wrong when conducting a review?	66
Suggestions for Further Information	67
<b>3 Choosing Your Review Methods</b>	<b>68</b>
In a Nutshell – How to Choose Your Review Methods	68
Key Terms Explained	68
Introduction	69
Acknowledging Your Review Constraints	70
A Generic Process for Planning Your Review	74
Our ‘Survival Kit’ of Review Options	75
Mapping review	76
Scoping review	79
Systematic review	79
Scoping meta-review	80
Review of reviews (overview)	81
Review Choice Scenarios	82
Summary	88
Key Learning Points	88
Frequently Asked Questions (FAQs)	89
FAQ 3.1 How can I use other people’s reviews in my own research?	89
FAQ 3.2 Is a scoping review or mapping review automatically a rapid review?	89
FAQ 3.3 What if scoping reveals studies are poor in quality?	89
FAQ 3.4 What if eligible studies lack detail?	90
FAQ 3.5 What if I am short of time?	90



FAQ 3.6 Should I perform a rapid review?	91
Suggestions for Further Information	91
<b>4 Defining Your Scope</b>	<b>93</b>
In a Nutshell – How to Define Your Review Scope	93
Key Terms Explained	93
Introduction	94
Why is defining your scope important?	94
Defining your scope with your audience in mind	97
Frameworks for defining your scope	97
Complex interventions	100
Logic models	104
Further Defining Your Scope	104
Descriptive mapping	106
Data mining and automation	109
Concept mapping	109
Concept analysis	109
Toolbox – Defining Your Scope	112
Tools for data mining	112
Tools for concept mapping	113
Defining Your Scope: Challenges and Pitfalls	114
How wide do I go? (Sampling approaches)	114
How narrow can I stay? (Scope creep)	116
The Review Protocol	116
Examples of review protocols	117
Summary	120
Key Learning Points	121
Frequently asked questions (FAQs)	121
FAQ 4.1 None of the frameworks fit my question. How can I formulate my research idea?	121
FAQ 4.2 With so much literature in my review topic, how can I review it systematically?	121
FAQ 4.3 My research question is actually four or five questions, is this a problem?	121
FAQ 4.4 I had identified a defined question but my scoping search identified nothing on this topic, what shall I do?	122
FAQ 4.5 Is it really necessary to formally complete the review protocol?	122
FAQ 4.6 When is it appropriate to change my review scope?	122
Suggestions for Further Information	122
<b>5 Searching the Literature</b>	<b>124</b>
In a Nutshell – How to Conduct a Literature Search	124
Key Terms Explained	124
Introduction	125
Stages in the Literature Searching Process	126
1 Who should conduct the literature search?	127
2 Aims and purpose of literature searching	128
3 How to prepare for your review (the scoping search)	129



91	4 How to construct your search strategy	133
91	5 How to search bibliographic databases	135
93	6 How to use supplementary searching	139
93	7 How to manage your references	140
93	8 How to report the search process	141
94	Types of literature reviews	146
94	Translating your review question into a search strategy	146
97	Toolbox – Searching the Literature	152
97	Summary	153
100	Key Learning Points	154
104	Frequently Asked Questions (FAQs)	154
104	FAQ 5.1 How do I identify synonyms for my research topic concepts?	154
106	FAQ 5.2 How do I know when to stop searching?	154
109	FAQ 5.3 Is it sensible to use NOT in a search strategy?	154
109	FAQ 5.4 I have completed my searching, but have now discovered an additional search term that might be useful, what should I do?	155
109	FAQ 5.5 Should I use abbreviations in my search terms?	155
112	FAQ 5.6 I have noticed substantial duplication between the databases I have searched, how do I handle this?	155
112	FAQ 5.7 Do I need to use a search filter?	155
113	Suggestions for Further Information	156
114		
114		
116	<b>6 Assessing the Evidence Base</b>	<b>158</b>
116	In a Nutshell – Selecting Studies to Include in Your Review and	
117	Assessing Their Quality	158
120	Key Terms Explained	158
121	Introduction	159
121	How to Assess the Relevance of Studies to Your Review Question	160
	Steps in the study selection process	161
121	Using software for study selection	162
	Assessing Your Included Studies – First Steps	163
121	Assessing the Evidence Base in Detail	166
	Assessing the quality of included studies – what is it and why do we do it?	166
121	Study designs -- is there a hierarchy of evidence?	167
	Quality assessment: validity, reliability and applicability	173
122	Carrying out quality assessment	175
	Toolbox – Quality Assessment Checklists	181
122	Case study – drafting a checklist	181
122	Quality assessment of qualitative research	186
	Quality assessment for mixed methods reviews	188
124	Applying quality assessment	189
	Issues and challenges in quality assessment	189
124	Summary	191
124	Key Learning Points	191
125	Frequently Asked Questions (FAQs)	191
126	FAQ 6.1 I am unsure whether to include a study in my review, what can I do?	191
127	FAQ 6.2 Do I need to record a reason for all the studies I exclude?	192
128	FAQ 6.3 How do I keep track of what I have included and excluded and at what stage?	192
129		



FAQ 6.4 I am unsure how much effort I will need to spend on quality assessment and how I should approach it for my review?	192
FAQ 6.5 I am critically appraising a systematic review and I want to assess the issue of heterogeneity, whereabouts in the review should I look for this?	192
FAQ 6.6 Can I combine my data extraction with my quality assessment, so I don't need to read each study twice?	192
Suggestions for Further Information	193
<b>7 Synthesising and Analysing Quantitative Studies</b>	<b>194</b>
In a Nutshell – How to Synthesise and Analyse Quantitative Studies	194
Key Terms Explained	194
Introduction	195
Synthesis–Analysis, Analysis–Synthesis?	196
Overview of approaches to synthesis	196
Extracting quantitative data for your review	197
Planning your synthesis strategy	199
Approaches to synthesis	202
Tabular presentation	205
Numerical presentation	206
Graphical approaches	210
Analysis of quantitative research	218
Use of validity assessment	218
Subgroup analysis	219
Sensitivity analysis	219
Revisiting the Review Question(s)	221
Discussing the limitations of the evidence	222
Publication bias	226
Selective outcome reporting bias	229
Summary	231
Key Learning Points	232
Frequently Asked Questions (FAQs)	232
FAQ 7.1 Do I need to be skilled in statistics to conduct a systematic review?	232
FAQ 7.2 How do I decide which method of meta-analysis to use?	232
FAQ 7.3 Are there any software that will help with data extraction?	233
FAQ 7.4 What software is available for performing a meta-analysis?	233
FAQ 7.5 What if the studies in my meta-analysis are of variable quality?	234
Suggestions for Further Information	234
<b>8 Synthesising and Analysing Qualitative Studies</b>	<b>235</b>
In a Nutshell – How to synthesise and analyse qualitative studies	235
Key Terms Explained	235
Introduction	236
Synthesis–analysis: an iterative process	237
Overview of Approaches to Qualitative Synthesis	237
Aggregative, configurative or integrative?	238
A Step-by-Step Guide to Qualitative Synthesis	239
Step 1 – Formulating the question	239
Steps 2 and 3 – Searching and screening the literature	240
Step 4 – Extracting qualitative data for your review	241



Step 5 – Quality assessment (appraisal)	242
Step 6 – Synthesis	242
Step 7 – Analysis and interpretation	243
Getting Started in Qualitative Synthesis	244
Thematic synthesis	245
Framework synthesis	246
Best fit framework synthesis	247
Progressing to Advanced Forms of Synthesis	249
Meta-ethnography	249
Qualitative data analysis	253
Where to next? Advanced forms of analysis	258
Writing Up and Presenting Review Findings	263
Using tables to present your data	263
Using numbers to present your data	264
Using graphics to present your data	264
Rapid QES (rQES)	268
Mega-ethnography and mega-aggregation (review of reviews)	269
Summary	270
Key Learning Points	270
Frequently Asked Questions (FAQs)	271
FAQ 8.1 How do I choose an appropriate method for qualitative synthesis?	271
FAQ 8.2 Which methods of qualitative evidence synthesis are most suitable for a novice reviewer?	271
FAQ 8.3 Once I have identified all my included papers where should I start?	271
FAQ 8.4 How many studies do I need for my qualitative synthesis?	272
FAQ 8.5 What guidance is available for reporting qualitative synthesis?	272
Suggestions for Further Information	273
<b>9 Synthesising and Analysing Mixed Methods Data</b>	<b>274</b>
In a Nutshell – How to Synthesise and Analyse Mixed Methods Data	274
Key Terms Explained	274
Introduction	275
Undertaking a Mixed Methods Review	277
A Step-by-Step Guide to Mixed Methods Synthesis	278
Step 1: Constructing statement of overall goal/research problem	282
Step 2: Scoping the review	283
Step 3: Formulating the review question(s)	283
Step 4: Deciding on the review design	286
Step 5: Determining initial criteria for inclusion/exclusion	286
Step 6: Conducting an extensive literature search	287
Step 7: Selecting final articles for inclusion	287
Step 8: Assessing study quality	288
Step 9: Extracting the data	288
Step 10: Synthesising and integrating the studies	289
Step 11: Interpreting the evidence	290
Step 12: Presenting the results	290
Points of Integration for Quantitative and Qualitative evidence	295
Review team level	295
Integration within the review process	295



Integrating at the review level	296
Integration via the review process	296
Integrating using a common structure, framework or model	301
Integrating through 'translation' of the data	302
On the Role of the Narrative Review	303
The usefulness of mixed methods reviews	304
Summary	305
Key Learning Points	306
Frequently Asked Questions (FAQs)	306
FAQ 9.1 Should I perform a rapid mixed methods review?	306
FAQ 9.2 Which methods of integrating quantitative and qualitative evidence are most suitable for a novice reviewer?	306
FAQ 9.3 Should I publish my mixed methods review as one publication or two?	306
FAQ 9.4 Why should I consider conducting a mixed methods review?	307
FAQ 9.5 I can't decide between conducting two separate reviews of quantitative and qualitative evidence and undertaking a single mixed methods synthesis. What particular issues should I bear in mind?	307
Suggestions for Further Information	308
<b>10 Writing Up, Presenting and Disseminating Your Review</b>	<b>309</b>
In a Nutshell – How to Write Up, Present and Share Your Review Findings	309
Key Terms Explained	309
Introduction	310
Identifying recommendations for action	310
Highlighting recommendations for future research	311
Considering Your Audience	313
Consumers of your review	314
Writing for research funders	316
Writing for policy-makers	316
Writing for practitioners	317
Writing for the research community	317
Writing for the media	318
Writing for the public	319
Reflexivity and acknowledging potential bias	319
A Sample Review Structure	320
Reviews and reporting guidelines	326
Use of tables and figures	329
Use of appendices and other supporting features	330
Accurate referencing	330
Structuring other types of review (scoping/mapping reviews)	330
Publicising Your Review	333
Toolbox for Presenting Your Findings	334
Graded entry format	334
GRADE and GRADE-CERQual	336
The EPICOT+ format for reporting research recommendations	336
Summary	337
Key Learning Points	337
Frequently Asked Questions (FAQs)	338



1.3	FAQ 10.1 How do I identify reporting guidelines that relate to my systematic review?	338
1.4	FAQ 10.2 Is it mandatory to use reporting guidelines where available?	338
1.5	FAQ 10.3 What should I report if I produce an empty review?	338
1.6	FAQ 10.4 What outputs can I use to disseminate my review?	339
1.7	FAQ 10.5 How can I promote outputs from my review?	339
1.8	Suggestions for Further Information	340
1.9	References	341
1.10	Index	376

2.1	Milestones in the history of research synthesis	29
2.2	Examples of the interplay of literature review and theory	30
2.3	Words associated with being 'systematic'	32
2.4	Configurative/interpretive or aggregative	32
2.5	Types of review	37
2.6	Training requirements for systematic reviews	39
2.7	Sample project timetable for 6-, 9- and 12-month reviews	45
2.8	Example of a logic model	41
2.9	Example of a concept map	42
2.10	Example 'heat map' visualising themes in a collection of reviews	43
2.11	Well-being Produced using VOSviewer (vosviewer.com)	43
2.12	Typical question types matched to review type	47
2.13	Survival Kit for 'live' reviews	51
2.14	SALSA profile for a mapping review	52
2.15	SALSA profile for a full review	53
2.16	Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence	61
2.17	The elements of PICOS	69
2.18	Worked examples of PICOS	71
2.19	The Cochrane Collaboration logo	72
2.20	The forest plot	73
2.21	The harvest plot	73
2.22	Example of a logic model	74
2.23	Network meta-analysis	75
2.24	Example of a risk-of-bias graph	76
2.25	Example of a risk-of-bias summary	77
2.26	Funnel plot with no evidence of publication bias	78
2.27	Funnel plot with possible publication bias	79
2.28	The Systematic Review Toolbox	80
2.29	Key stages of the literature search process	81
2.30	Electronic databases; subject specific	82
2.31	Sample PRISMA flow diagram for mixed methods review	83
2.32	Grey literature sources	84
2.33	Comparison of features in reference management packages	85
2.34	PRISMA flow diagram	86
2.35	PRISMA flow diagram	87
2.36	PRISMA flow diagram	88
2.37	PRISMA flow diagram	89
2.38	PRISMA flow diagram	90
2.39	PRISMA flow diagram	91
2.40	PRISMA flow diagram	92
2.41	PRISMA flow diagram	93
2.42	PRISMA flow diagram	94
2.43	PRISMA flow diagram	95
2.44	PRISMA flow diagram	96
2.45	PRISMA flow diagram	97
2.46	PRISMA flow diagram	98
2.47	PRISMA flow diagram	99
2.48	PRISMA flow diagram	100
2.49	PRISMA flow diagram	101
2.50	PRISMA flow diagram	102
2.51	PRISMA flow diagram	103
2.52	PRISMA flow diagram	104
2.53	PRISMA flow diagram	105
2.54	PRISMA flow diagram	106
2.55	PRISMA flow diagram	107
2.56	PRISMA flow diagram	108
2.57	PRISMA flow diagram	109
2.58	PRISMA flow diagram	110
2.59	PRISMA flow diagram	111
2.60	PRISMA flow diagram	112
2.61	PRISMA flow diagram	113
2.62	PRISMA flow diagram	114
2.63	PRISMA flow diagram	115
2.64	PRISMA flow diagram	116
2.65	PRISMA flow diagram	117
2.66	PRISMA flow diagram	118
2.67	PRISMA flow diagram	119
2.68	PRISMA flow diagram	120
2.69	PRISMA flow diagram	121
2.70	PRISMA flow diagram	122
2.71	PRISMA flow diagram	123
2.72	PRISMA flow diagram	124
2.73	PRISMA flow diagram	125
2.74	PRISMA flow diagram	126
2.75	PRISMA flow diagram	127
2.76	PRISMA flow diagram	128
2.77	PRISMA flow diagram	129
2.78	PRISMA flow diagram	130
2.79	PRISMA flow diagram	131
2.80	PRISMA flow diagram	132
2.81	PRISMA flow diagram	133
2.82	PRISMA flow diagram	134
2.83	PRISMA flow diagram	135
2.84	PRISMA flow diagram	136
2.85	PRISMA flow diagram	137
2.86	PRISMA flow diagram	138
2.87	PRISMA flow diagram	139
2.88	PRISMA flow diagram	140
2.89	PRISMA flow diagram	141
2.90	PRISMA flow diagram	142
2.91	PRISMA flow diagram	143
2.92	PRISMA flow diagram	144
2.93	PRISMA flow diagram	145
2.94	PRISMA flow diagram	146
2.95	PRISMA flow diagram	147
2.96	PRISMA flow diagram	148
2.97	PRISMA flow diagram	149
2.98	PRISMA flow diagram	150
2.99	PRISMA flow diagram	151
2.100	PRISMA flow diagram	152

3.1	SALSA profile for the rapid review to early transfer of research findings	153
3.2	SALSA profile and 'At a glance' features	154
3.3	Familiar purposes and functions for conducting a literature review	155
3.4	Common traditional review types with definitions	156