

اللَّهُمَّ ارْحَمْنَا

**Part 1:
Systematic Review**

Conducting a Literature Search & Writing Review Paper

**Part 1:
Systematic Review**

Conducting a Literature Search & Writing Review Paper

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www.researcherid.com/rid/C-2414-2009

<http://scholar.google.com/citations>

Outline

No.	Topic
Day 1:	
1	What is a literature review
2	Some questions that the review of literature can answer
3	<u>Systematic Review</u>
4	Checklist for reading a review paper
5	Narrow the area of research
6	Review biases
7	Identifying a Research Problem
8	Developing a search strategy, Finding keyword
9	Introduce “Research Tools” Box
10	Selecting keywords
11	Finding proper articles

Nader Ale Ebrahim



- [Semināra](#)
- [Budapest Open Access Initiative](#)

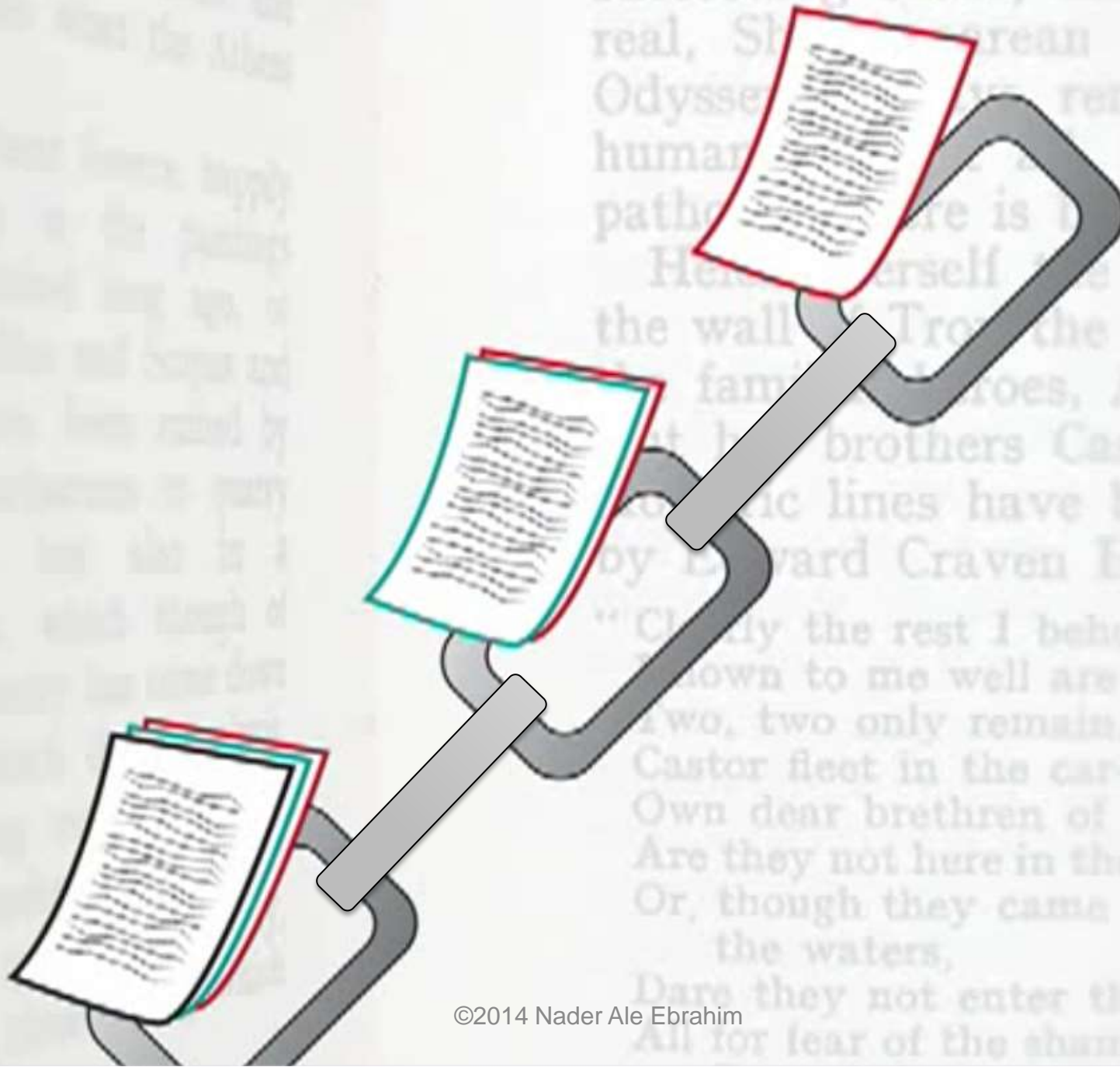


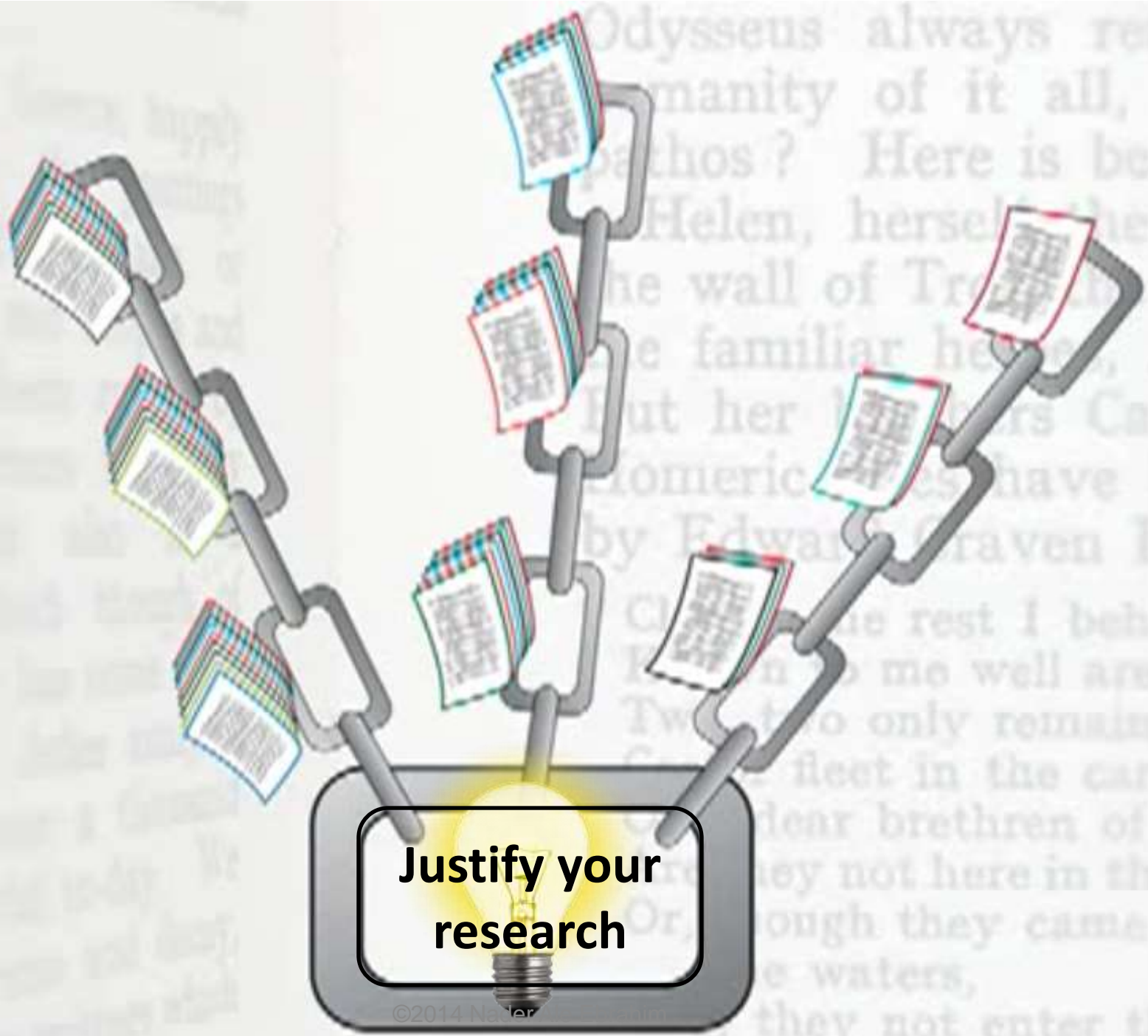
What is a literature review

A literature review discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain time period.

A literature review can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information. It might give a **new interpretation of old material** or **combine new with old interpretations**. Or it might **trace the intellectual progression of the field**, including major debates. And depending on the situation, the literature review may **evaluate the sources and advise the reader** on the most pertinent or relevant

Source: <http://writingcenter.unc.edu/handouts/literature-reviews/>





**Justify your
research**

The literature review

In your literature review, you should:

- **clarify your understanding of the field**
- explain the rationale for your research
- place your research within a broader context
- **evaluate the results of previous research**
- **define key concepts and ideas**
- **identify research in related areas that are generalisable or transferable to your topic**
- **identify relevant methodological issues.**



The literature review

A literature review ensures that you are at least familiar with the body of research in your field before starting your own investigations. Writing a literature review also provides practice in critical thinking. Once you have applied critical thinking skills to the findings of past researchers, you are in a better position to apply these same skills to your own work.

UNE. 2009. The literature review [Online]. University of New England. Available: <http://www.une.edu.au/library/eskillsplus/literature/litreview.php> [Accessed 25 January 2010].

Critical reading

Critical reading is the process of reading that goes beyond just understanding a text. Critical reading involves:

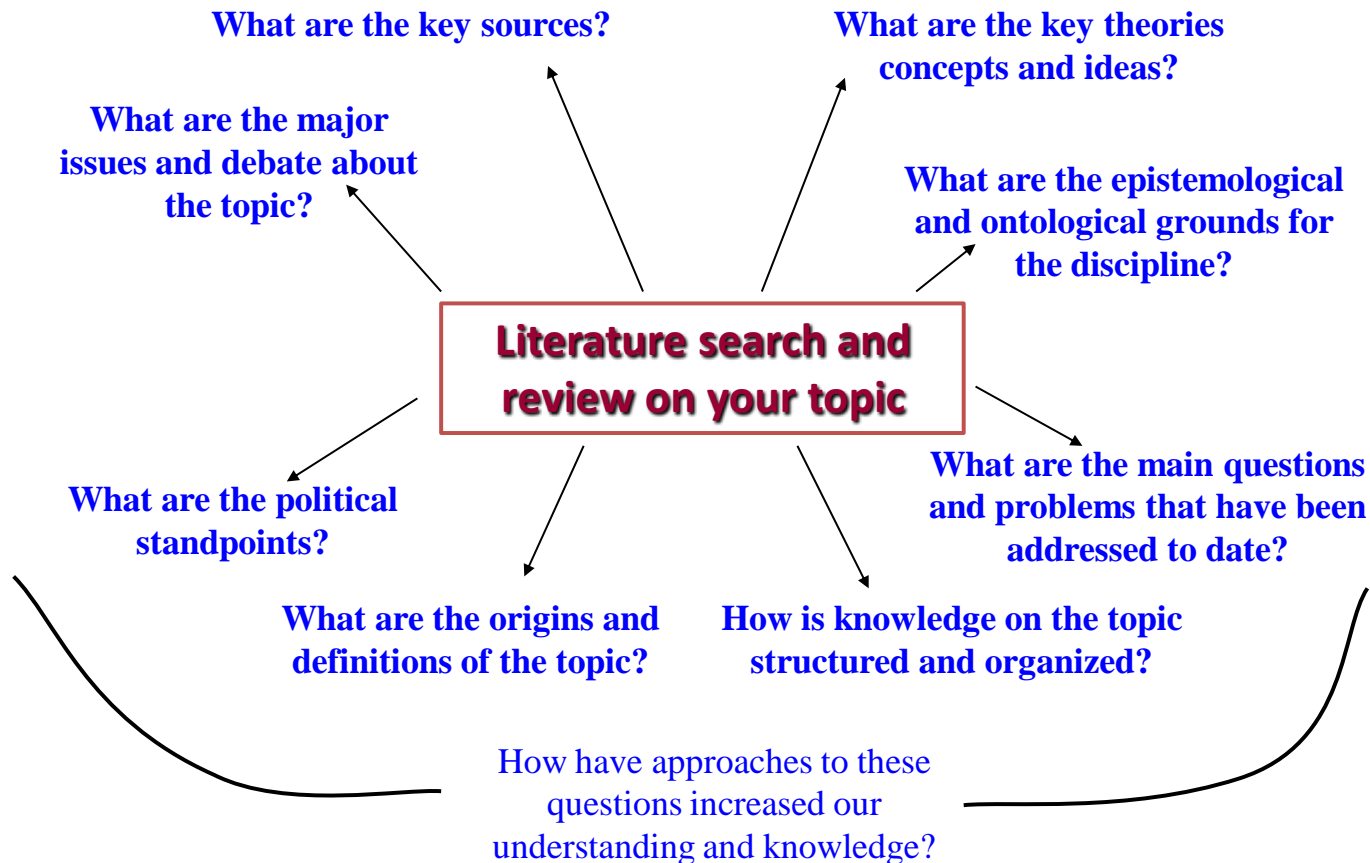
- Carefully considering and evaluating the reading
- Identifying the reading's strengths and implications
- Identifying the reading's weaknesses and flaws
- Looking at the 'big picture' and deciding how the reading fits into the greater academic context (the understandings presented in other books and articles on this topic)

Critical reading

Critical reading often involves asking questions about the reading. In particular, you are examining the strengths and weaknesses of the reading's argument. To do this, you need to consider:

- the reading's background
- its purpose and overall conclusion (claim)
- the evidence used in the reading
- the logical connections between the claim and the evidence
- the reading's balance
- its limitations
- how it relates to other sources and research
- if the reading is based on research, how this research was conducted

Some questions that the review of literature can answer



Systematic Review 1/2

- A systematic literature review is a means of identifying, evaluating and interpreting all available research relevant to a particular research question, or topic area, or phenomenon of interest. Individual studies contributing to a systematic review are called *primary studies*; a systematic review is a form a secondary study.

Systematic Review 2/2

- A **systematic review** is a literature review focused on a research question that tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question.

Source: http://en.wikipedia.org/wiki/Systematic_review

- [A Guide to Writing the Dissertation Literature Review](#)

Reasons for Performing Systematic Reviews

- **To summarise** the existing evidence concerning a treatment or technology e.g. to summarise the empirical evidence of the benefits and limitations of a specific agile method.
- **To identify any gaps** in current research in order to suggest areas for further investigation.
- **To provide a framework/background** in order to appropriately position new research activities.

However, systematic reviews can also be undertaken to examine the extent to which empirical evidence supports/contradicts theoretical hypotheses, or even to assist the generation of new hypotheses

The Systematic Review Process



Source: Adapted from [Systematic Review](#)

Planning the review

1. Identification of the need for a review
2. Development of a review protocol. (The most important activity during protocol is to formulate the research question.)

Conducting the review

1. Identification of research
2. Selection of primary studies
3. Study quality assessment
4. Data extraction & monitoring
5. Data synthesis.



Reporting the review

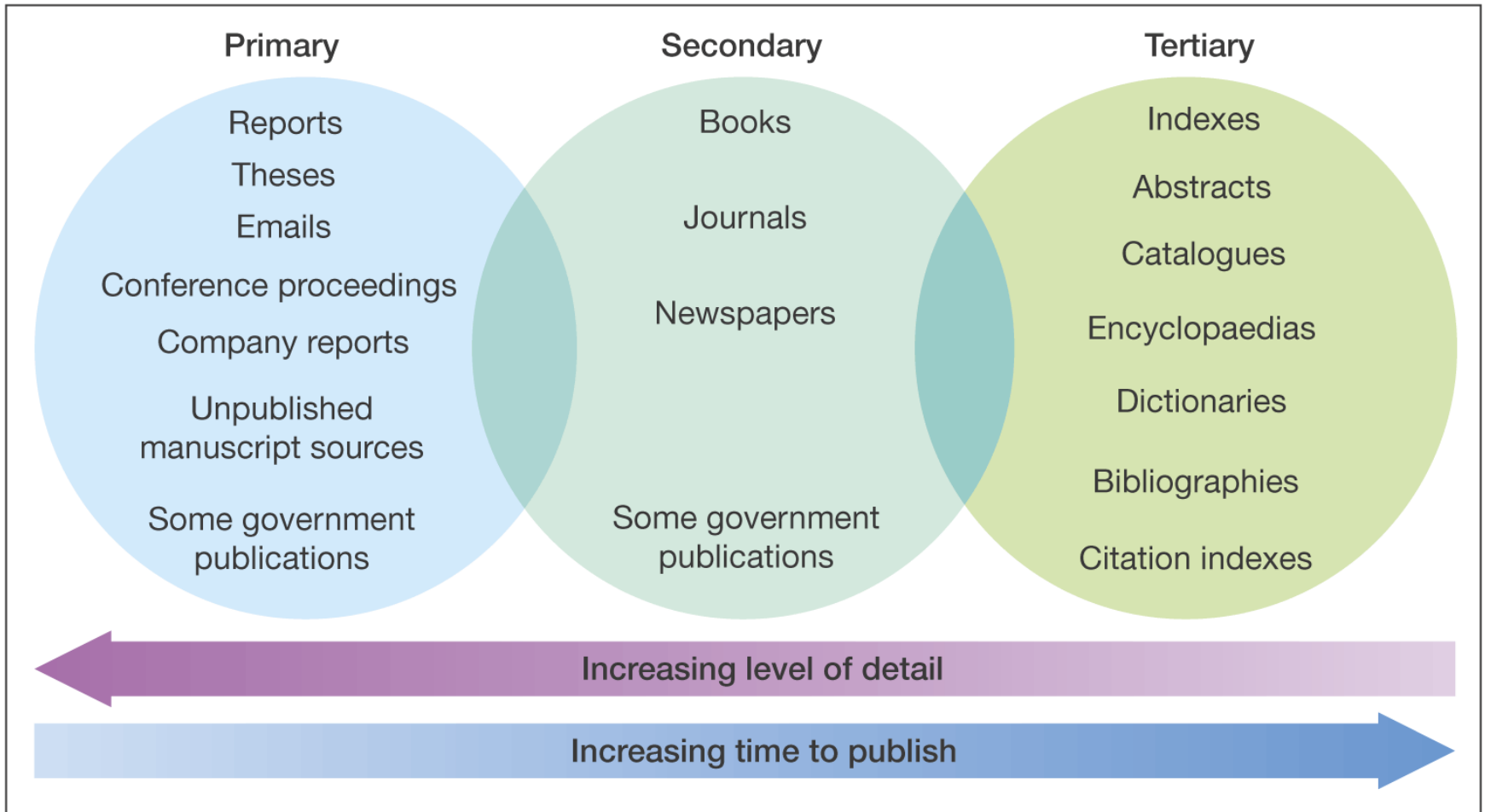
*Reporting the review
is a single stage
phase.*

Checklist for reading a review paper

- What are the review's objectives?
- What sources were searched to identify primary studies? Were there any restrictions?
- What were the inclusion/exclusion criteria and how were they applied?
- What criteria were used to assess the quality of primary studies and how were they applied?
- How were the data extracted from the primary studies?
- How were the data synthesised? How were differences between studies investigated? How were the data combined? Was it reasonable to combine the studies? Do the conclusions flow from the evidence?

Checklist for reading a review paper-From a more general viewpoint

- Can you find an important question, which the review addressed?
- Was a thorough search done of the appropriate databases and were other potentially important sources explored?
- Was methodological quality assessed and the trials weighted accordingly?
- How sensitive are the results to the way that the review has been done?
- Have numerical results been interpreted with common sense and due regard to the broader aspects of the problem?

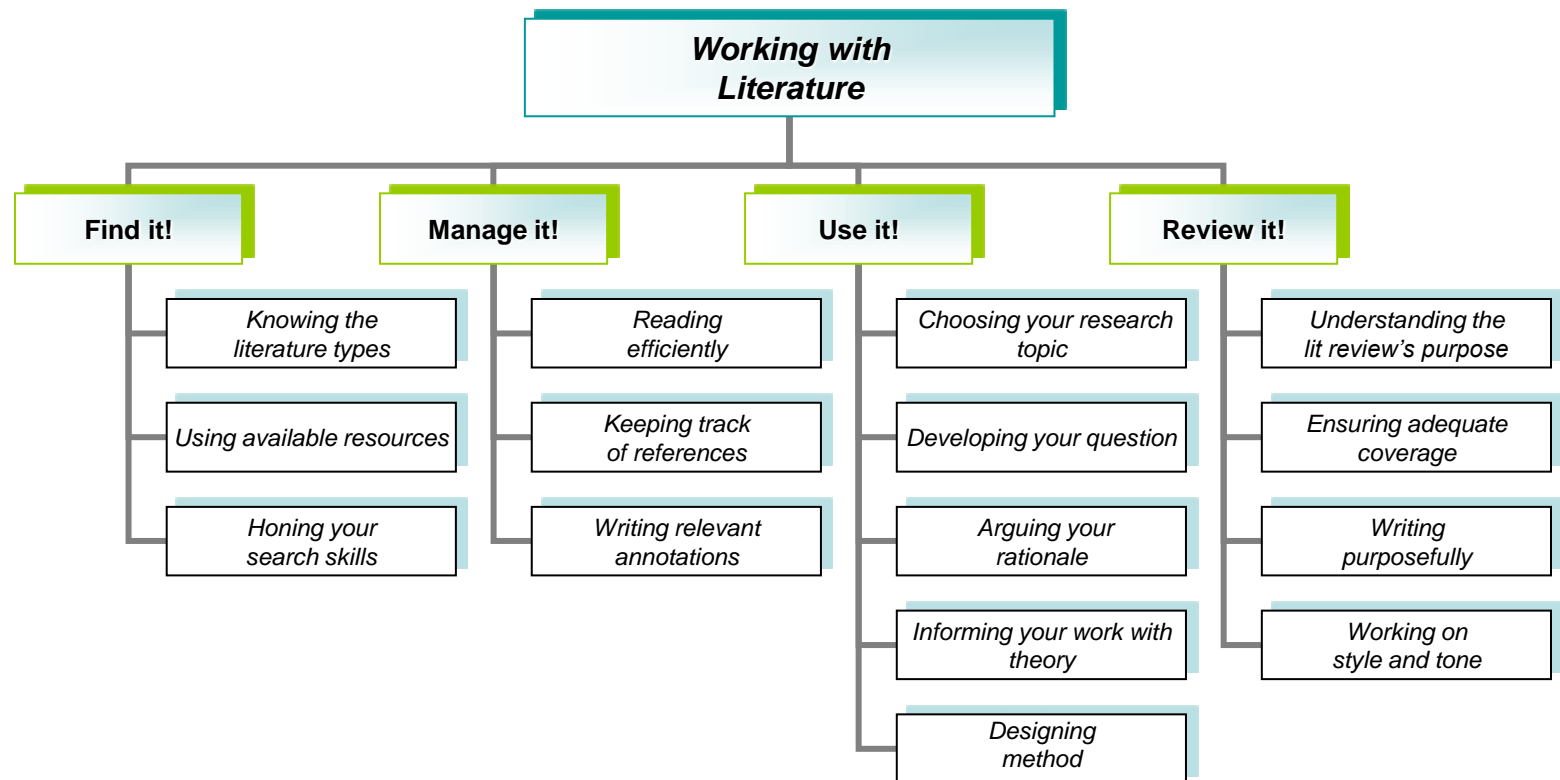


Literature sources available

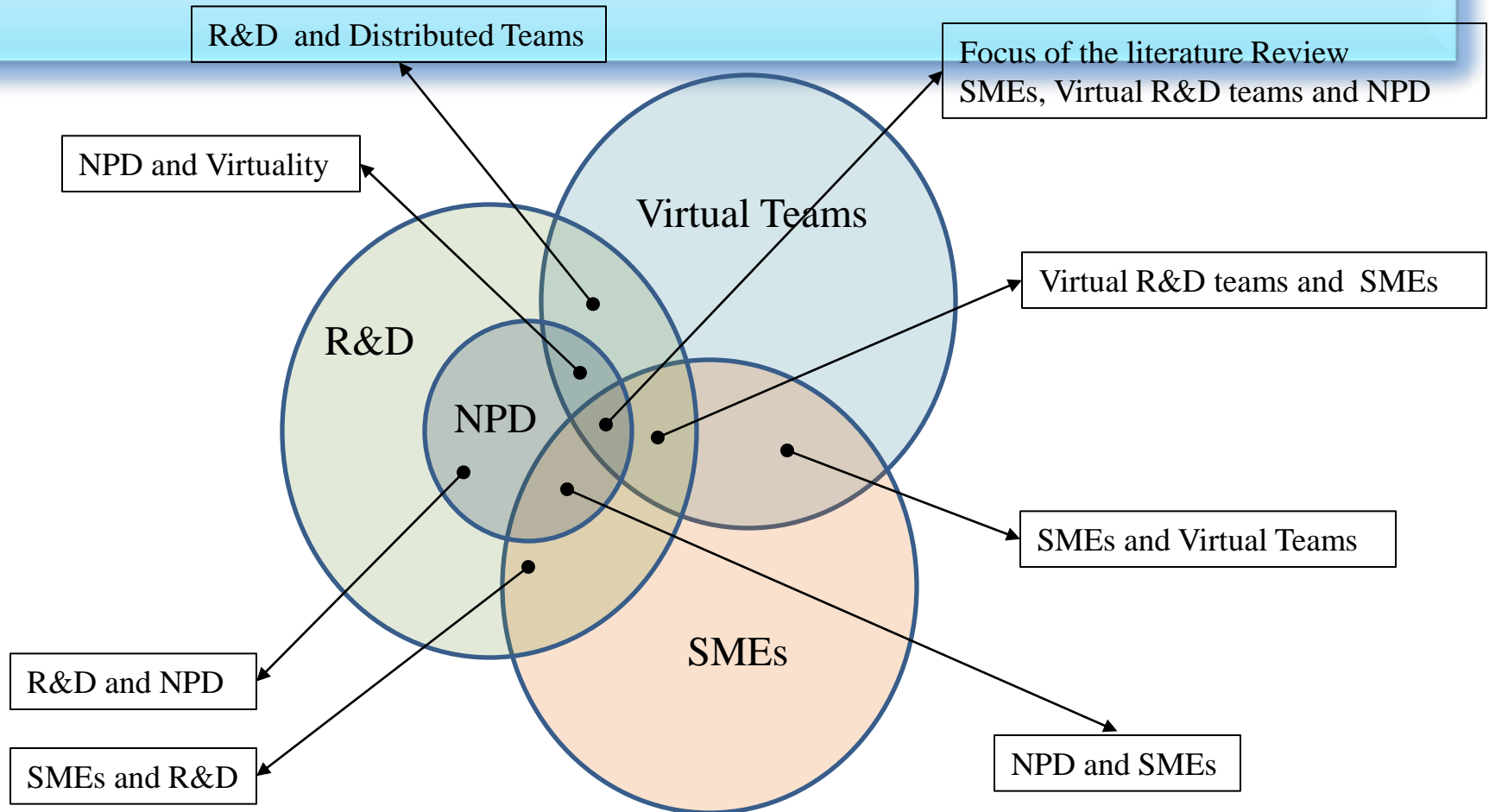
Source: [Research methods for business students](#) / Mark Saunders, Philip Lewis, Adrian Thornhill. —5th ed.

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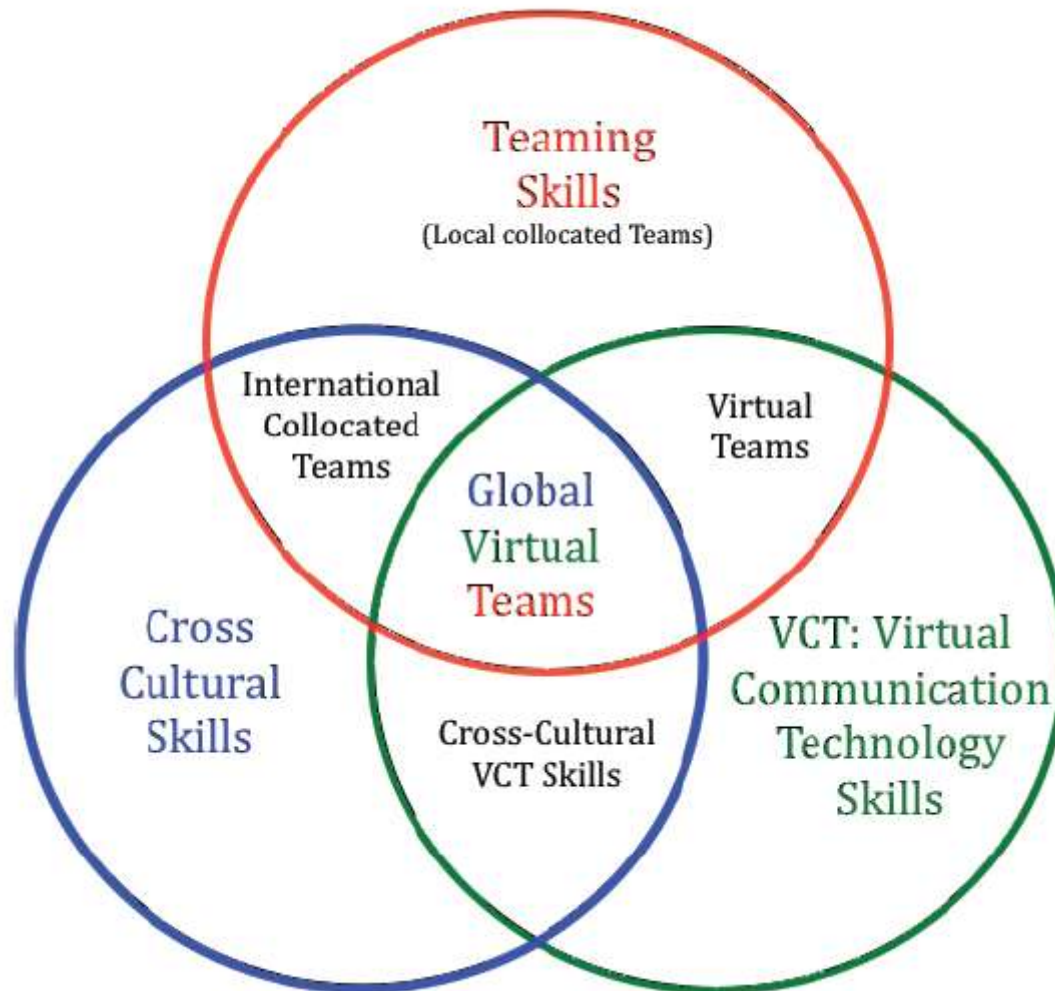
Working with literature



Narrow the area of research



Ale Ebrahim, N., Ahmed, S., & Taha, Z. (2009). Virtual R & D teams in small and medium enterprises: A literature review. [Review]. Scientific Research and Essay, 4(13), 1575–1590.



[The interactions between teaming, cross-cultural and virtual communication skills to create new engineering interactions.](#)

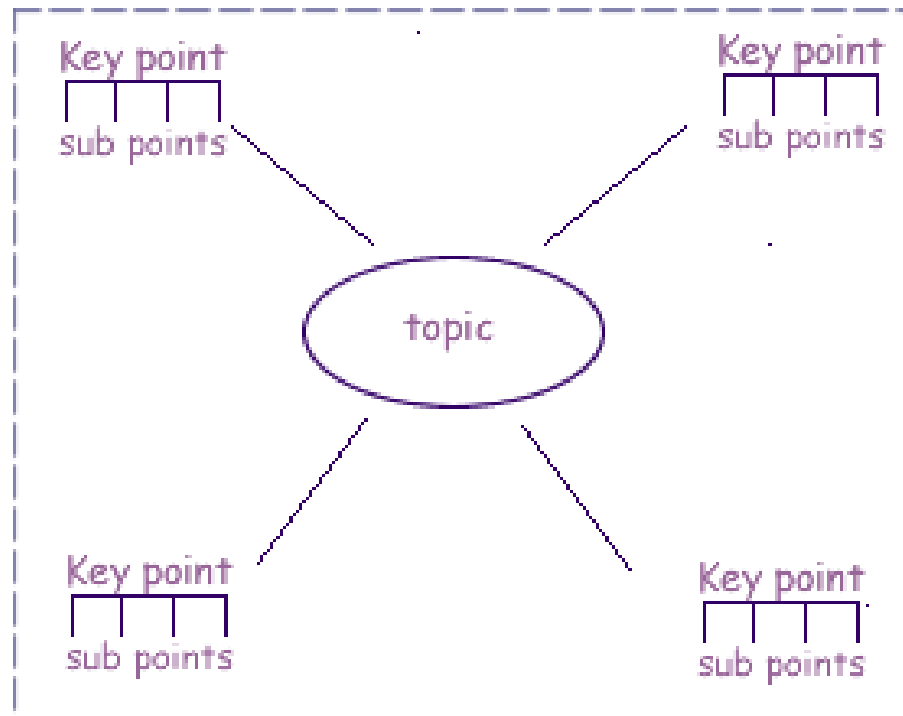


Figure from: <http://memeburn.com/2012/06/do-links-from-social-media-sites-really-hold-any-seo-value/>

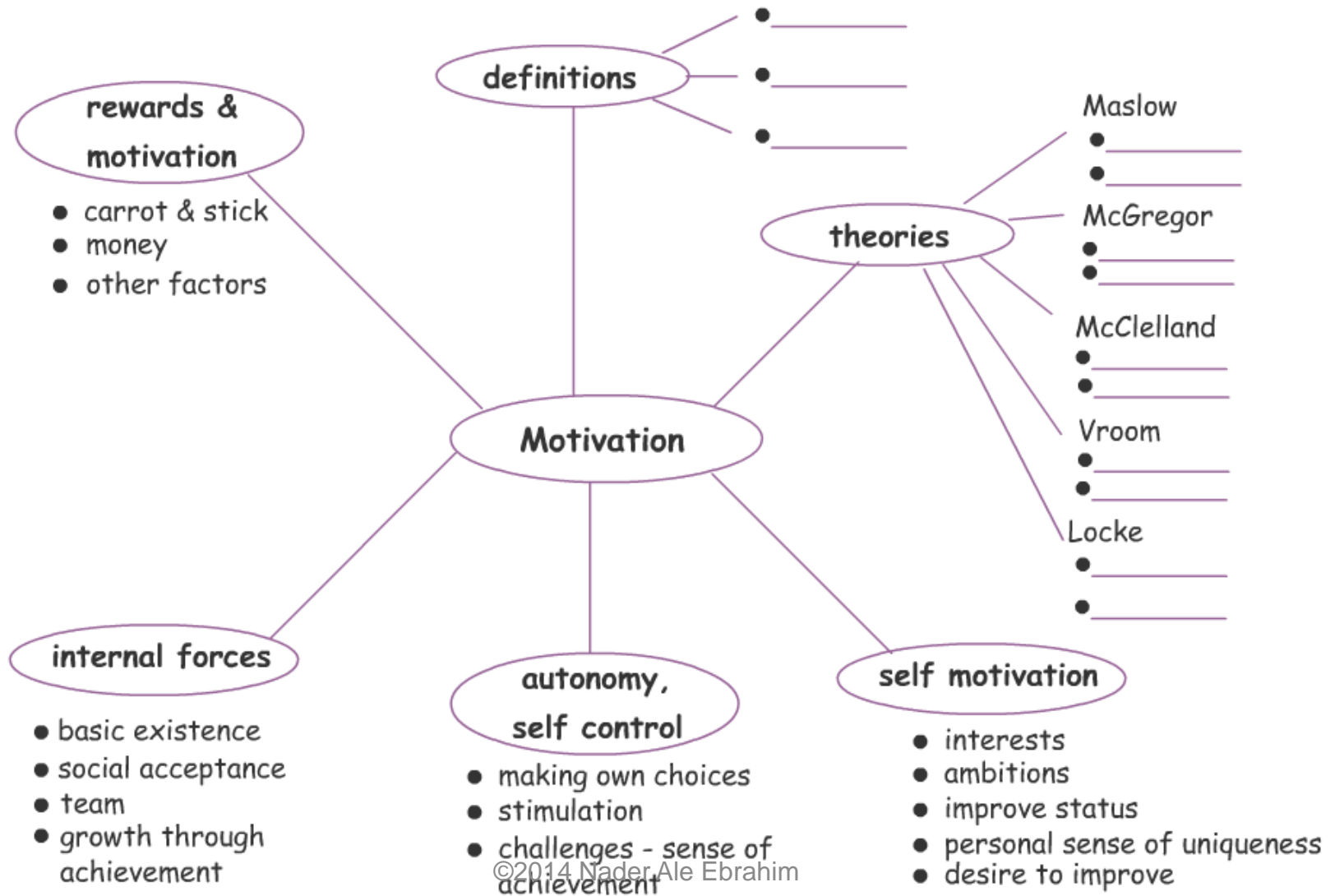
Structure & planning your writing - MindMaps

MindMaps are a visual map to link and organise key concepts of your research. They also show links and relationships between ideas. Sometimes it is a good idea to number key ideas in the order that you are going to place them in your literature review.

Example

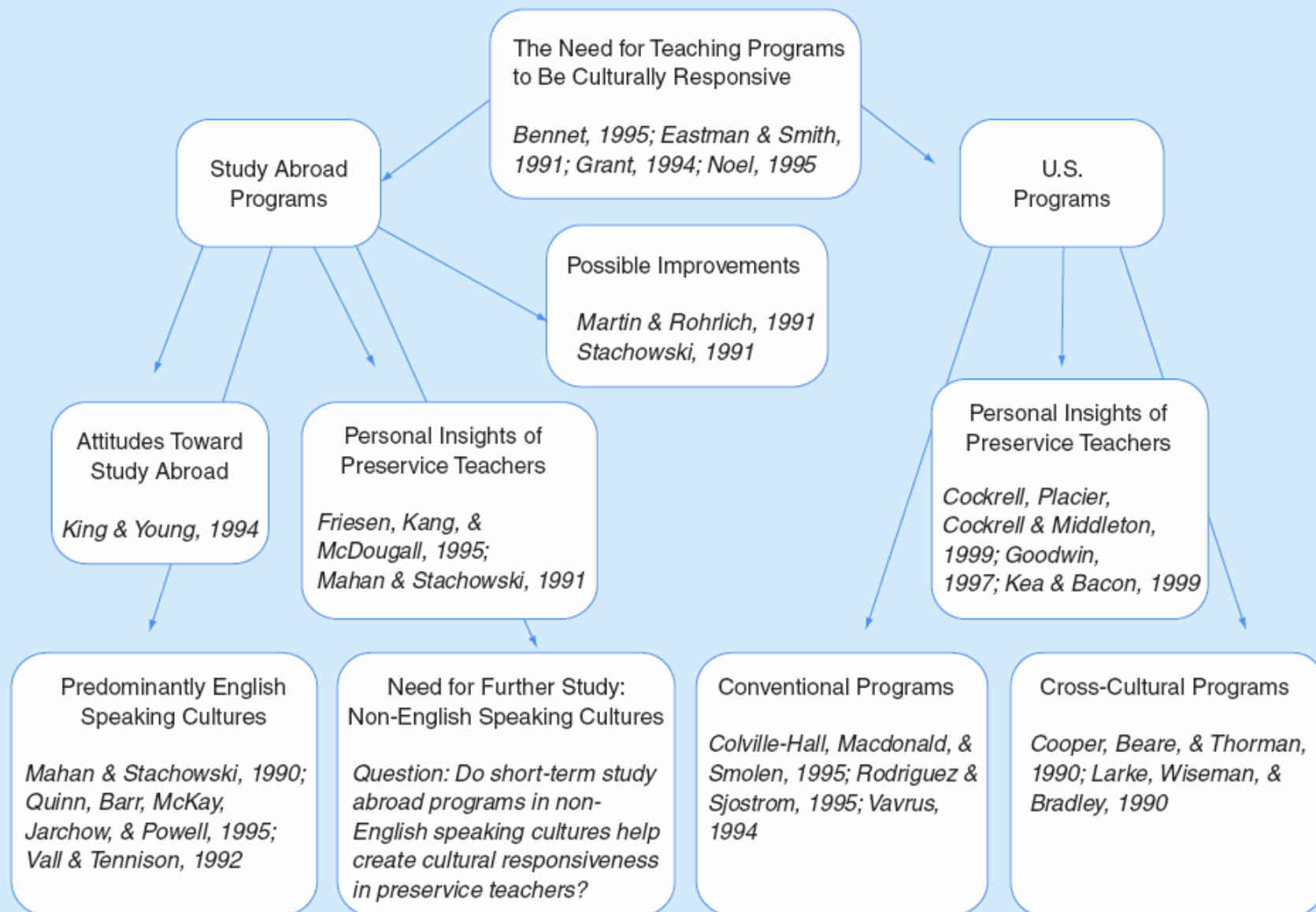


Example of a MindMap



A Literature Map, Hierarchical Design

Literature Map



A Literature Map, Circular Design

Need for Further Study:

Non-English Speaking Cultures

Question: "Do short-term study abroad programs in non-English speaking cultures help create cultural responsiveness in preservice teachers?"

Study Abroad Programs

Personal Insights of Preservice Teachers (Friesen, Kang, & McDougall, 1995)

Attitudes Toward Study Abroad (King & Young, 1994)

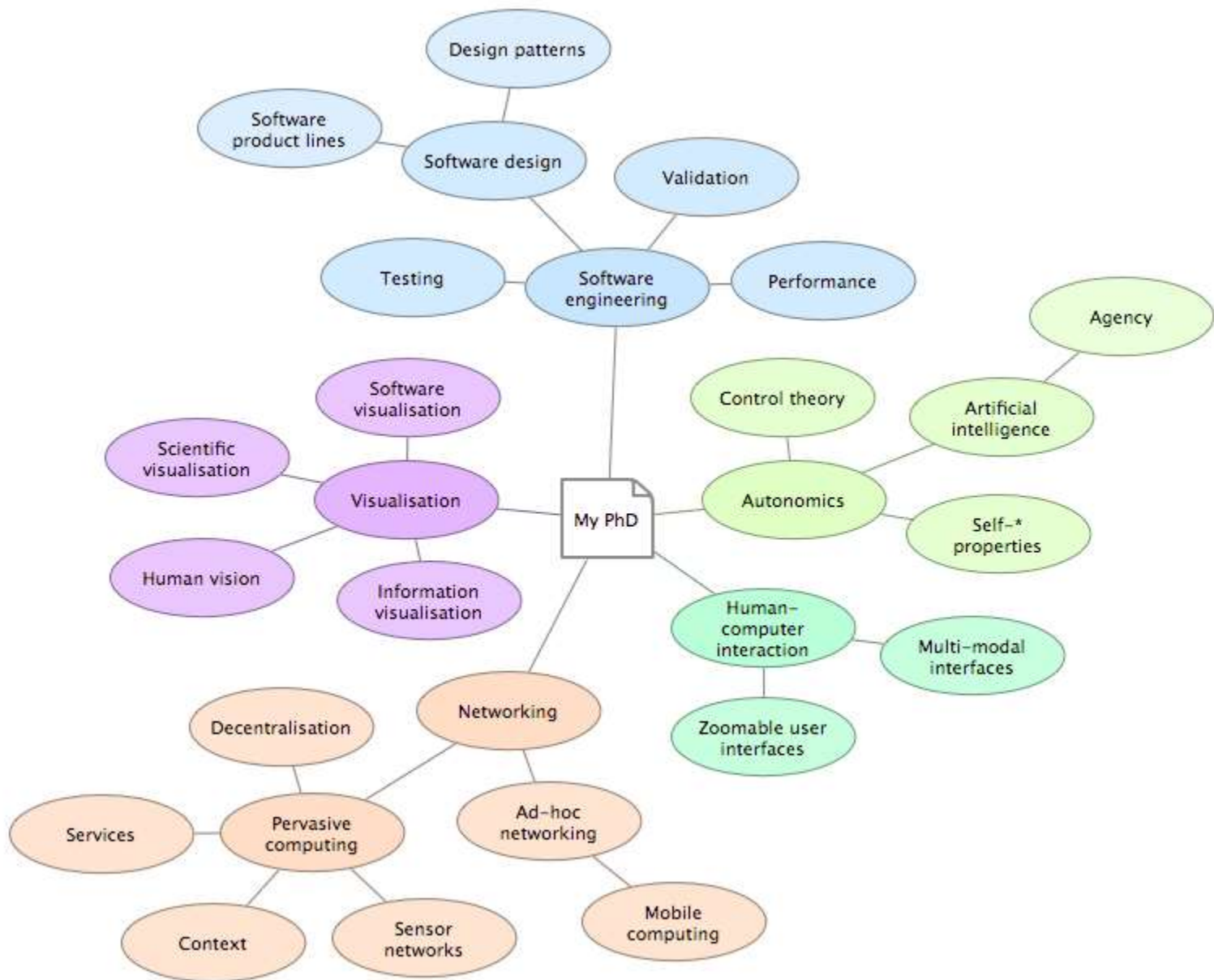
Predominantly English Speaking Cultures (Mahan & Stachowski, 1990)

U.S. Programs

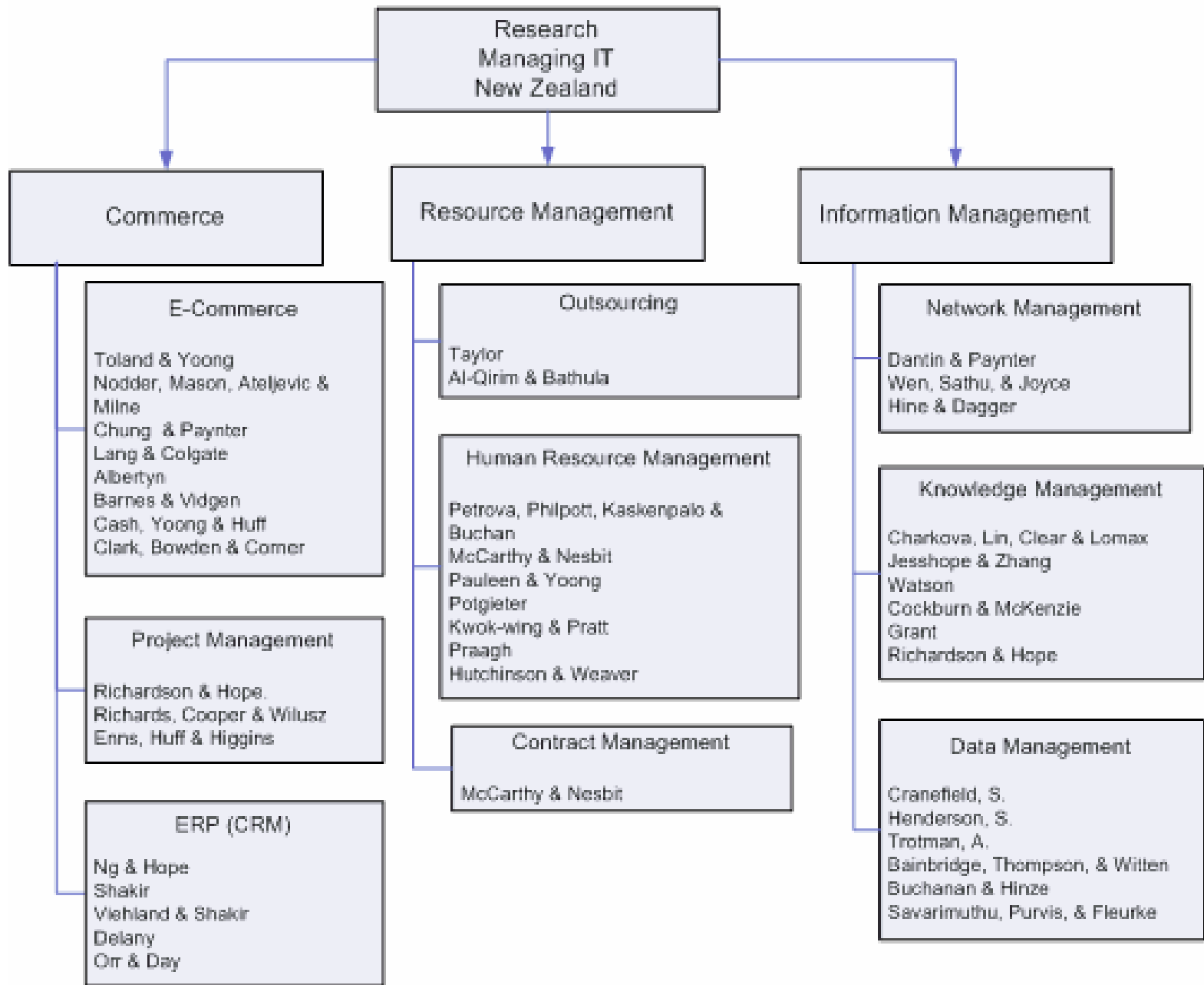
Personal Insights of Preservice Teachers (Cockrell, Placier, Cockrell, & Milleton, 1999)

Conventional Programs (Colville-Hall, Macdonald, & Smolen, 1995)

Cross-Cultural Programs (Cooper, Beare, & Thorman, 1990)



Source: Ross' PhD Literature Review Mind Map



Review biases

- Read outdated version of a paper/book
- Reading but not writing
- Read unlinked papers (detect as much of the relevant literature as possible)
- Read before planning (defining a review protocol that specifies the research question being addressed)
- Start reading with few resources
- Language bias
- Publication bias
- Read everything
- Not keeping bibliographical information

Identifying a Research Problem

Researchers begin a study by identifying a research problem that they need to address. They write about this “problem” in the opening passages of their study and, in effect, give you as a reader the rationale for why the study is important and why you need to read their study.

[Reference: Creswell, J. W. \(2012\). *Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* \(4th ed. ed.\). Boston: Pearson Education, Inc.](#)

Reviewing the Literature

With so much information available, searching and locating good literature on your topic can be challenging. Five steps will provide a sense of how researchers proceed in reviewing the literature are:

- 1. Identify key terms to use in your search for literature.***
- 2. Locate literature about a topic by consulting several types of materials and databases, including those available at an academic library and on the Internet.***
- 3. Critically evaluate and select the literature for your review.***
- 4. Organize the literature you have selected by abstracting or taking notes on the literature and developing a visual diagram of it.***
- 5. Write a literature review that reports summaries of the literature for inclusion in your research report.***

[Reference: Creswell, J. W. \(2012\). *Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* \(4th ed. ed.\). Boston: Pearson Education, Inc.](#)




**Developing a search strategy,
Finding keyword**

Effective searching

- » Developing a search strategy
- » Searching the library catalogue
- » Finding journal articles and papers
- » Searching the Internet
- » Other sources

Source: <http://learnline.cdu.edu.au/myresearch/plan/searchstrategy.html>

Developing a search strategy

- » Defining the topic
- » Considering the scope of your topic
- » Identifying the main or important aspects
-  » Compiling a list of keywords
- » Developing your search strategy
- It is important to develop a search strategy to, not only, find the information you need but to also clarify your topic.

How to Find and Develop a Viable Research Topic?

Step One: Identify a Topic.

Step Two: Test Your Topic.

Test the main concepts or keywords in your topic by looking them up in the appropriate background sources or by using them as search terms.

If you are finding too much information and too many sources, narrow your topic by using the **and** operator

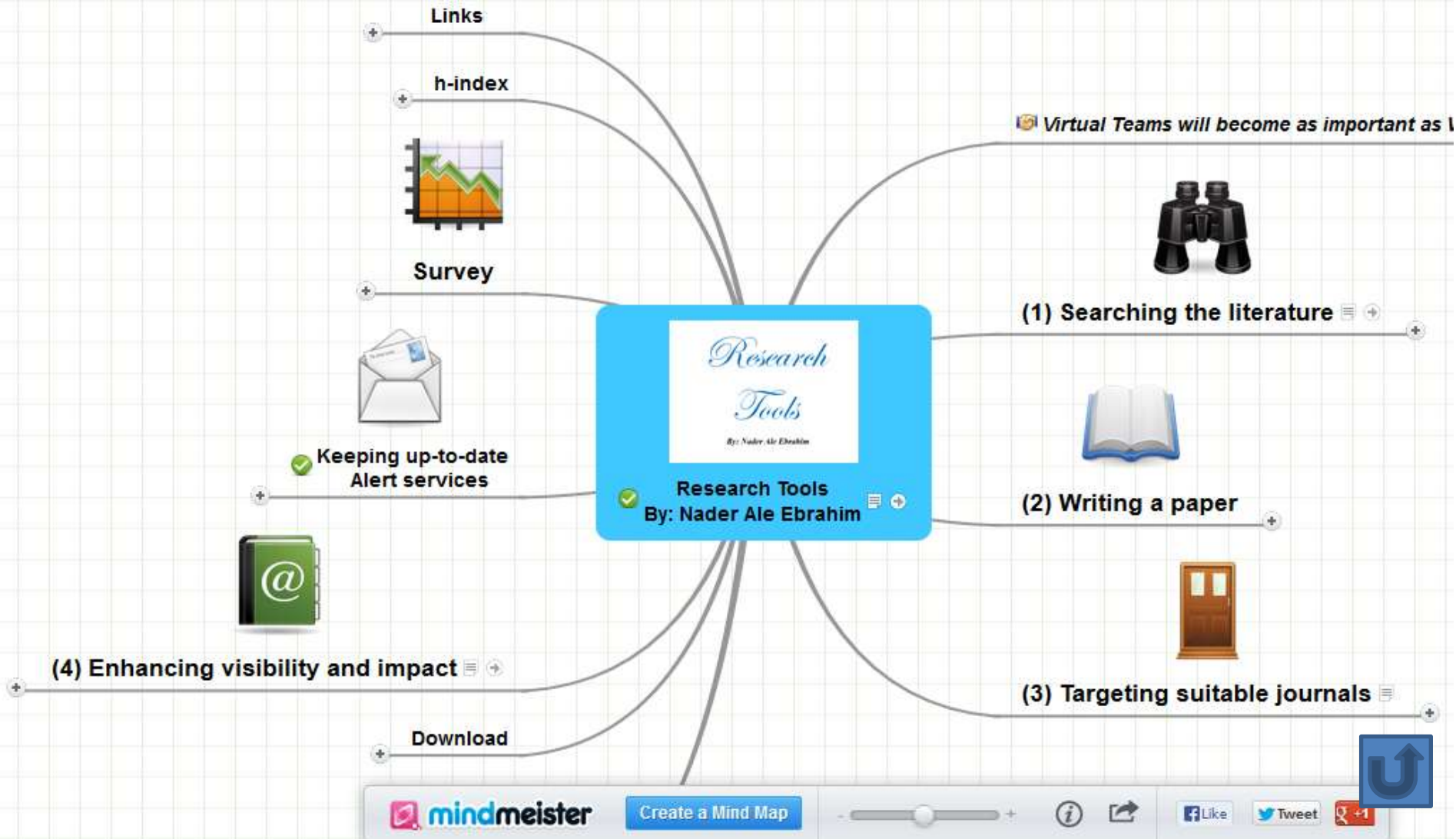
Finding too little information may indicate that you need to broaden your topic.

Improving Readership of Your Articles

Appearing at the top of the list of search results, and having a useful description of your work, greatly improve the likelihood that a reader will find and download your document.

- Abstracts should include **keywords** that potential readers are likely to use in searches. It is especially valuable to modify and reuse words that appear in the document's title and full text to improve the article's rank when readers search for those words.
- The **first sentence of the abstract** is all that is likely to be displayed in the search page results, so make your first sentence one that will encourage readers to click the link.

Research Tools Mind Map



Keywords

Selecting keywords lead to get more citation.

Google AdWords



ISI Web of
KNOWLEDGE
Transforming Research

MASTER KEYWORDS
LIST
Journal of International Business
Studies

Google Trends



MeSH (Medical Subject Headings)

Master Keywords List

The screenshot shows the website for the Journal of International Business Studies. At the top, the Palgrave Macmillan logo is on the left, and the journal title is in the center. On the right, there are links for Institutional Registration, Personal Registration, and Subscribe, along with Admin Login, My account, and E-alert sign up. Below this is a navigation bar with Site Map, Subject Areas, and a search box. A banner for the Mastercard Finance, Payments & E-commerce Chair Vacancy is displayed. The main content area is titled 'Journal home > Master list of keywords'. The 'MASTER KEYWORDS LIST' section is divided into three categories: Research methods, Theories, and Topics. The 'RESEARCH METHODS' category is expanded, showing 'Data Source' (Primary, Secondary) and 'Research Design' (Comparative Thinking, Construct Development and Evaluation, Cross-Cultural Experiments, Cross-Cultural Research/Measurement Issues, Econometrics, Equivalency). On the right, there are links for e-alerts, library recommendations, RSS feeds, and Twitter. The bottom right features the Academy of International Business logo and links for JIBS/AIB Services and AIB resources.

Journal home > Master list of keywords

MASTER KEYWORDS LIST

- [Research methods](#)
- [Theories](#)
- [Topics](#)

The master keyword list is split into 3 main categories: research methods, theories, and topics. When choosing your keywords, please try to choose at least one keyword from each category.

RESEARCH METHODS [Top](#)

Data Source

- Primary
- Secondary

Research Design

- Comparative Thinking
- Construct Development and Evaluation
- Cross-Cultural Experiments
- Cross-Cultural Research/Measurement Issues
- Econometrics
- Equivalency

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Google AdWords - Keyword Planner

Google AdWords

Home Campaigns Opportunities Tools and Analysis Billing My account

Keyword Planner A new
 Add ideas to your plan

Your product or service
 Virtual Teams Get ideas Modify search

Targeting ?

- Malaysia
- English
- Google
- Negative keywords

Customize your search ?

Keyword filters

- Avg. monthly searches ≥ 0
- Suggested bid \geq RM0.00
- Ad impr. share $\geq 0\%$

Keyword options

- Show broadly related ideas
- Hide keywords in my account
- Hide keywords in my plan

Include/Exclude

Ad group ideas **Keyword ideas** Download Add all (368)

Search terms	Avg. monthly searches ?	Competition ?	Suggested bid ?	Ad impr. share ?	Add to plan
virtual teams	30	Low	RM7.98	0%	»

1 - 1 of 1 keywords < >

Keyword (by relevance)	Avg. monthly searches ?	Competition ?	Suggested bid ?	Ad impr. share ?	Add to plan
virtual team	70	Low	-	0%	»
team building	1,600	High	RM2.11	0%	»
training and development	1,300	Medium	RM1.66	0%	»
teamwork	1,600	Low	RM0.13	0%	»
team building activities	1,300	High	RM1.43	0%	»
management skills	390	Medium	RM0.82	0%	»

Google AdWords – Keyword Like

Google AdWords

Home Campaigns Opportunities Tools and Analysis Billing My account

Keyword Planner
Add ideas to your plan

Your product or service
Virtual Teams

Get ideas Modify search

Targeting

- Malaysia
- English
- Google
- Negative keywords

Customize your search

Keyword filters
Avg. monthly searches ≥ 0
Suggested bid \geq RM0.00
Ad impr. share $\geq 0\%$

Keyword options
Show broadly related ideas
Hide keywords in my account
Hide keywords in my plan

Include/Exclude

Ad group: **Keywords like: Virtual Team Example** 1 of 22 ad group ideas

Add all (21)

Keyword (by relevance)	Avg. monthly searches	Competition	Suggested bid	Ad impr. share	Add to plan
virtual team	70	Low	-	0%	
training and development	1,300	Medium	RM1.66	0%	
teamwork	1,600	Low	RM0.13	0%	
management skills	390	Medium	RM0.82	0%	
virtual teams definition	10	Low	-	0%	
cross functional team	110	Low	-	0%	
teambuilding	210	Medium	RM1.58	0%	
cross culture	70	Low	RM2.52	0%	
teamwork games	90	Low	RM2.45	0%	

Google AdWords - Keyword Output

	A	B	C	D	E	F	G	H	I
1	Ad group	Keyword	Currency	Avg. monthly searches	Competition	Suggested Impr. shar	In account	In plan?	
2	Seed Keywords	virtual teams	MYR	30	0.05	4.69	0	N	N
3	Keyword Ideas	virtual team	MYR	70	0.04	1.39	0	N	N
4	Keyword Ideas	team building	MYR	1600	0.71	1.86	0	N	N
5	Keyword Ideas	teamwork	MYR	1600	0.12	0.46	0	N	N
6	Keyword Ideas	team building activities	MYR	1000	0.76	1.51	0	N	N
7	Keyword Ideas	virtual teams definition	MYR	10	0.03		0	N	N
8	Keyword Ideas	cross functional team	MYR	110	0		0	N	N
9	Keyword Ideas	virtual team building	MYR	10	0.19		0	N	N
10	Keyword Ideas	cross culture	MYR	70	0.06		0	N	N
11	Keyword Ideas	team management	MYR	90	0.05		0	N	N
12	Keyword Ideas	virtual meeting	MYR	20	0.15	4.37	0	N	N
13	Keyword Ideas	types of teams	MYR	40	0.02		0	N	N
14	Keyword Ideas	virtual team definition	MYR	10	0.09		0	N	N
15	Keyword Ideas	self managed teams	MYR	30	0.01		0	N	N
16	Keyword Ideas	cultural sensitivity	MYR	40	0.02		0	N	N
17	Keyword Ideas	team bonding	MYR	30	0.22		0	N	N
18	Keyword Ideas	virtual work	MYR	20	0.11		0	N	N
19	Keyword Ideas	managing people in organization	MYR	10	0		0	N	N
20	Keyword Ideas	virtual team example	MYR	10	0.07		0	N	N
21	Keyword Ideas	virtual assistant jobs	MYR	20	0.44	0.09	0	N	N
22	Keyword Ideas	project team management	MYR	10	0.35		0	N	N
23	Keyword Ideas	global team	MYR	10	0		0	N	N
24	Keyword Ideas	project team development	MYR	10	0.11		0	N	N
25	Keyword Ideas	virtual jobs	MYR	10	0.23	0.65	0	N	N
26	Keyword Ideas	define business management	MYR	10	0.27		0	N	N
27	Keyword Ideas	managing virtual teams	MYR	10	0.08		0	N	N

Keywords Plus

- KeyWords Plus[®] are index terms created by Thomson Reuters from significant, frequently occurring words in the titles of an article's cited references.

Source: http://images.webofknowledge.com/WOK46/help/WOS/h_fullrec.html

Keywords and Keywords Plus®

Authors sometimes provide a list of keywords or terms that they feel best represent the content of their paper. These keywords are contained in the ISI record (1991 data forward, depending on the [database](#)) for each article and are searchable. In addition, ISI generates KeyWords Plus for many articles. **KeyWords Plus** are words or phrases that frequently appear in the titles of an article's references, but do not necessarily appear in the title of the article itself. KeyWords Plus may be present for articles that have no author keywords, or may include important terms not listed among the title, abstract, or author keywords.

Source: <http://wos.isitrial.com/help/helpdefs.html>

KeyWords Plus- Example

- New Product Development in Virtual Environment (ISI Indexed)
- Author Keywords: New product Development; Virtual teams; Concurrent Collaboration; Review paper
- KeyWords Plus: DEVELOPMENT TEAMS; PERFORMANCE; TECHNOLOGY; KNOWLEDGE; COMMUNICATION; PERSPECTIVE; INTEGRATION; INNOVATION; NETWORK; WORKING

Web of ScienceSM

Results Topic=("virtual Teams")
Timespan=All Years. Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.
Lemmatization=On

Scientific WebPlus^{WEB} View Web Results >>

Note: Alternative forms of your search term (for example, tooth and teeth) may have been applied, in particular for Topic or Title searches that do not contain quotation marks around the terms. To find only exact matches for your terms, turn off the "Lemmatization" option on the search page.

Results: **741** Page 1 of 75 Go Sort by: Publication Date -- newest to oldest

Save to: EndNote Web EndNote ResearcherID

Analyze Results Create Citation Report

Refine Results
Search within results for
 Search
Web of Science Categories Refine
 MANAGEMENT (288)
 COMPUTER SCIENCE INFORMATION SYSTEMS (183)
 INFORMATION SCIENCE LIBRARY SCIENCE (122)
 BUSINESS (96)

- 1. Title: **Factors of collaborative working: A framework for a collaboration model**
Author(s): Patel Harshada; Pettitt Michael; Wilson John R.
Source: APPLIED ERGONOMICS Volume: 43 Issue: 1 Pages: 1-26 DOI: 10.1016/j.apergo.2011.04.009 Published: JAN 2012
Times Cited: 0 (from Web of Science)
Full Text [View abstract]
- 2. Title: **Technology Adoption in Online Social Networks**
Author(s): Peng Gang; Mu Jifeng
Source: JOURNAL OF PRODUCT INNOVATION MANAGEMENT Volume: 28 Supplement: 1 Pages: 133-145 DOI:

Web of ScienceSM

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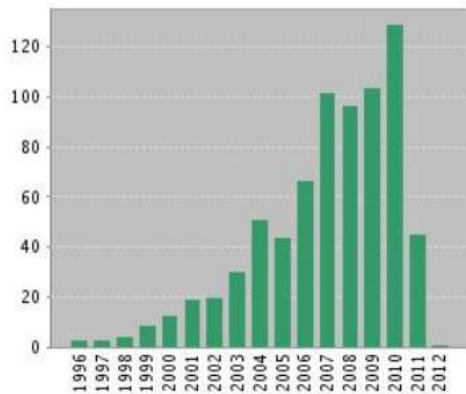
Citation Report

Topic=("virtual Teams")

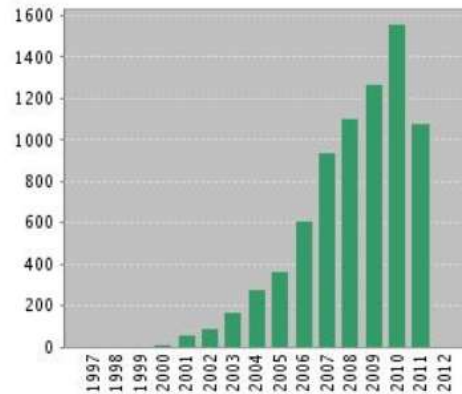
Timespan=All Years. Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.

This report reflects citations to source items indexed within Web of Science. Perform a Cited Reference Search to include citations to items not indexed within Web of Science.

Published Items in Each Year



Citations in Each Year



Results found: 741

Sum of the Times Cited [?]: 7561

Sum of Times Cited without self-citations [?]: 4771

Citing Articles [?]: 3928
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[View without self-citations](#)

Average Citations per Item [?]: 10.20

h-index [?]: 42

Results: **741**

Page 1 of 75 [Go](#)

Sort by: Times Cited -- highest to lowest

2008 2009 2010 2011 2012 Total Average



Task for first session

1. Draw the literature map

2. Read:

- https://www.dlsweb.rmit.edu.au/lisu/content/2_AssessmentTasks/assess_tuts/lit_review_LL/reading.html
- Cottrell, S. (2005). *Critical thinking skills - Developing Effective Analysis and Argument*. Basingstoke: Palgrave Macmillan.
- Chapter 3 of “Creswell, J. W. (2012). *Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Boston: Pearson Education, Inc”
- Chapter 3 of “Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Edinburgh Gate, Harlow, Essex CM20 2JE, England: Pearson Education Limited.”

3. Search for:

- The research keyword/s within Keywords Plus®
- The relevant article

4. Make a Bibliometrics database based on The research keywords

5. Find a good literature review paper In your field of study





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www.researcherid.com/rid/C-2414-2009

<http://scholar.google.com/citations>

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<http://dx.doi.org/10.5281/zenodo.7712>
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<http://dx.doi.org/10.5539/ies.v6n11p93>
3. Leary, Z. (2004) *The Essential Guide to Doing Research*. London: Sage Chapter Six
4. [Ale Ebrahim, N., Ahmed, S., & Taha, Z. \(2009\). Virtual R & D teams in small and medium enterprises: A literature review. \[Review\]. *Scientific Research and Essay*, 4\(13\), 1575–1590.](#)
5. UNE. 2009. The literature review [Online]. University of New England. Available:
<http://www.une.edu.au/library/eskillsplus/literature/litreview.php> [Accessed 25 January 2010].
6. http://en.wikipedia.org/wiki/Systematic_review
7. [ISI Web of Knowledge](#)
8. https://www.dlsweb.rmit.edu.au/lisu/content/2_AssessmentTasks/assess_tuts/lit_review_LL/reading.html
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