



Locating Literature

UNDERTAKING A LITERATURE REVIEW

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Who are we?

- Students?
 - Undergraduate?
 - Post-graduate?
 - Doctoral?
- Academics?
- Independent researchers?
- Paid researchers?



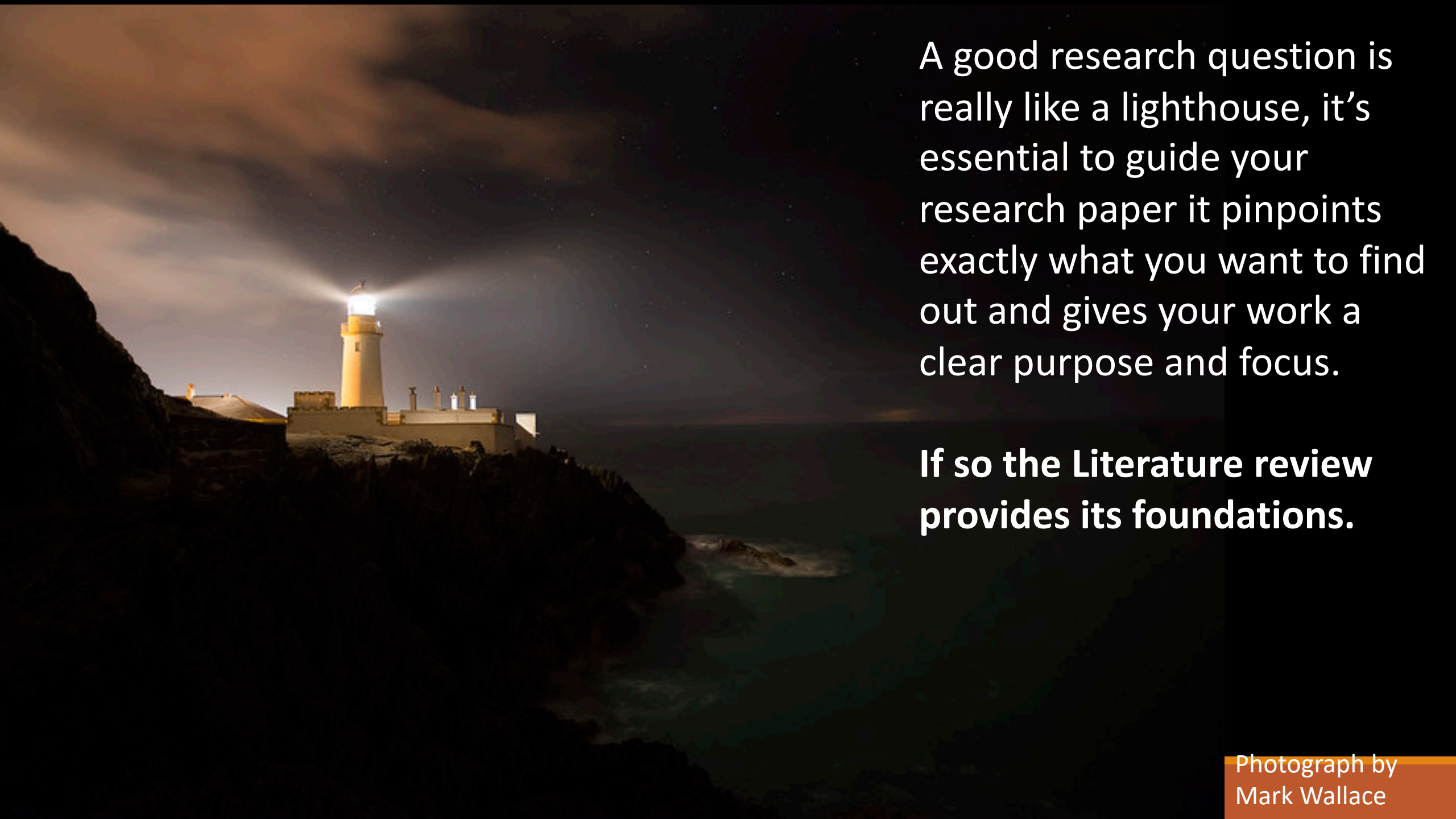
What is a literature review?

Sets the scene

- An overview
- Surveys the current state of knowledge on a topic
- Describe, compare and synthesise the existing research

Critical, not just descriptive

- Identify strengths and weaknesses
- Note areas of consensus and disagreement
- Highlight gaps in the existing research
- Suggest and justify future research

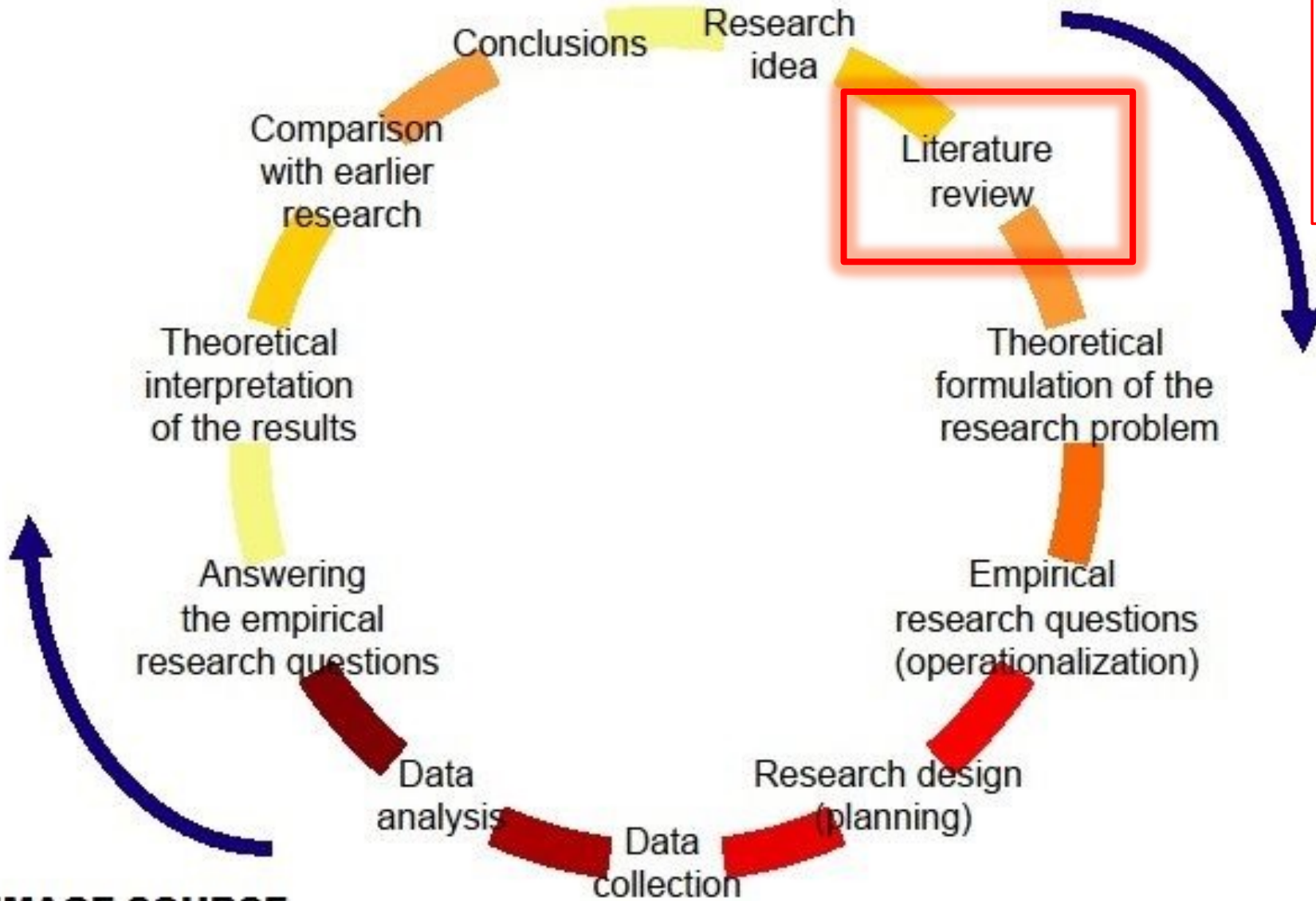


A good research question is really like a lighthouse, it's essential to guide your research paper it pinpoints exactly what you want to find out and gives your work a clear purpose and focus.

If so the Literature review provides its foundations.

Photograph by
Mark Wallace

The research process



The Literature review helps bring a research idea to fruition and helps form and frame the research question.

IMAGE SOURCE

http://www.bcps.org/offices/lis/researchcourse/images/research_process.gif

Types of Review

Narrative

Systematic

Broader research topic

Clearly defined research question

May or may not include comprehensive searching and quality assessment

Aims for comprehensive, exhaustive searching with transparent methods and pre-specified eligibility criteria

Usually summarises research findings in a narrative fashion e.g. chronological, thematic etc

May include a meta-analysis – statistical analysis of the combined results of quantitative studies

May be more subjective in how studies were chosen (selection bias)

Seeks to *systematically* search for, appraise and synthesise research evidence, often adhering to guidelines on how to conduct a review (e.g. PRISMA)

Grant & Booth (2009), 'A Typology of Reviews'

PRISMA checklist:

Preferred Reporting Items for Systematic Reviews

<http://www.prisma-statement.org/>

Section/Topic	#	Checklist Item	Reported on Page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome-level assessment (see Item 12).	
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group and (b) effect estimates and confidence intervals, ideally with a forest plot.	
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., health care providers, users, and policy makers).	
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review level (e.g., incomplete retrieval of identified research, reporting bias).	
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	

PRISMA steps 6-9

6. Eligibility Criteria

7. Information sources

8. Search

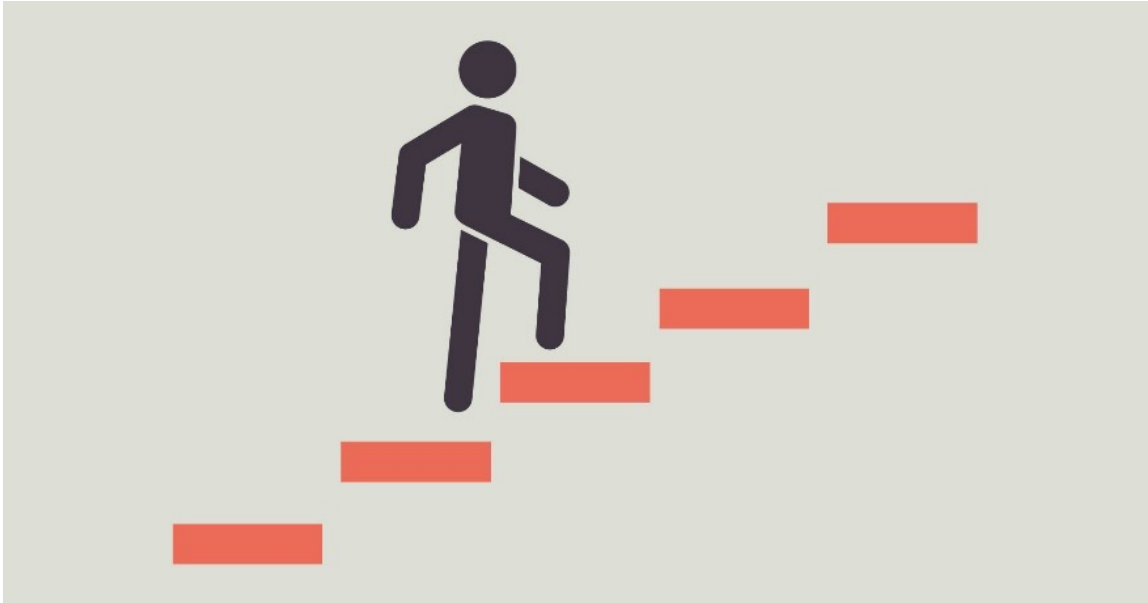
9. Study selection

Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).

Main steps in a systematic review

1. Framing the question
2. Identifying and selecting relevant literature
3. Assessing the quality of studies
4. Summarising the evidence
5. Interpreting the findings

(Khan et al. 2003)





Searching for Sources

<u>Source</u>	<u>Useful for</u>	<u>Bad at</u>
Books	the Broad overview	up to date info
Journal articles	detail, up to date research	Broad overview & generalisations
News info	very up to date affairs & opinion	peer reviewed, balanced or detailed
Company reports/Financial reports	understanding a company internally legally required financial data	external, balanced view or analysis
Blogs & conference papers than	ideas and current topics	might not be peer reviewed, less detail journals
Theses	citation searching & ideas	peer reviewed authority (what mark did it get?)

Grey literature has been defined by the Luxembourg Convention on Grey Literature as:

Information produced by government, academics, business and industry in electronic and print formats where publishing is not the primary activity of the producing body.

Purpose is to share key highly relevant information with relevant parties.

Production and research quality may be extremely high as reputations are vested in the end-product.

There may be an obligation to share the information.

On release the information is extremely up-to-date and does not suffer from the delays and restrictions of publishing.

May support small niche areas of research.

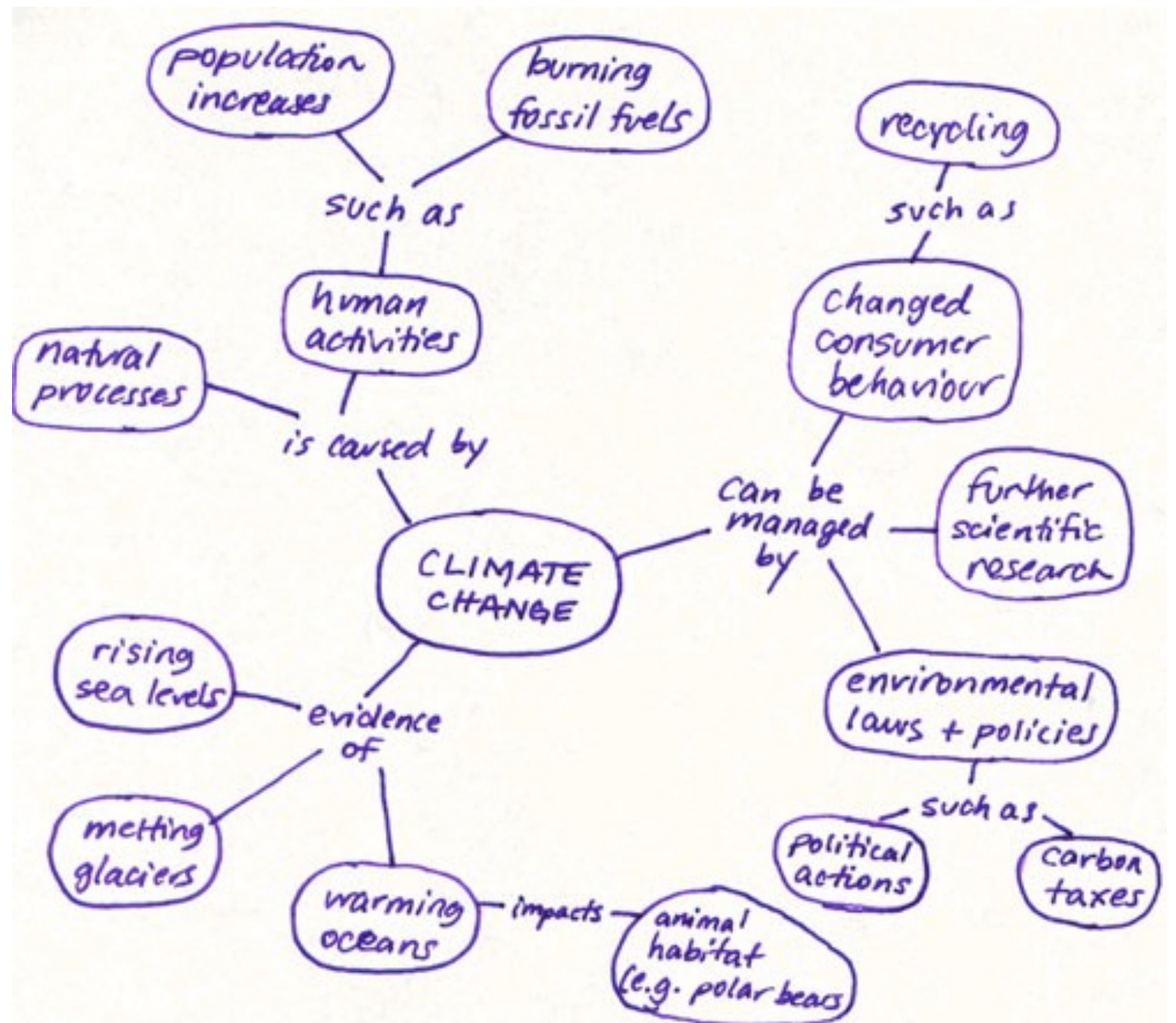
It's not in the Library!

- <http://scholar.google.co.uk/>
- Google it.:
 - Open access research papers:
 - BASE <https://www.base-search.net/>
 - CORE <https://core.ac.uk/>
 - Researchers networks e.g. Research Gate, Academia.edu
 - Authors' and institutions' websites
 - Unpaywall/Open Access Button <https://kopernio.com/> (now Endnote)

Search Thesaurus

A search thesaurus is created to locate the keywords we will use.

In a systematic review these keywords, how they are combined and where these combinations are used will be recorded and potentially justified.



Database searching

Combining your keywords

Databases and search-engines allow you to combine several different keywords at once using **AND** or **OR**.

The purpose of this is that you can be very specific as to whether the words **MUST** appear in your results or whether they are a range of alternatives.

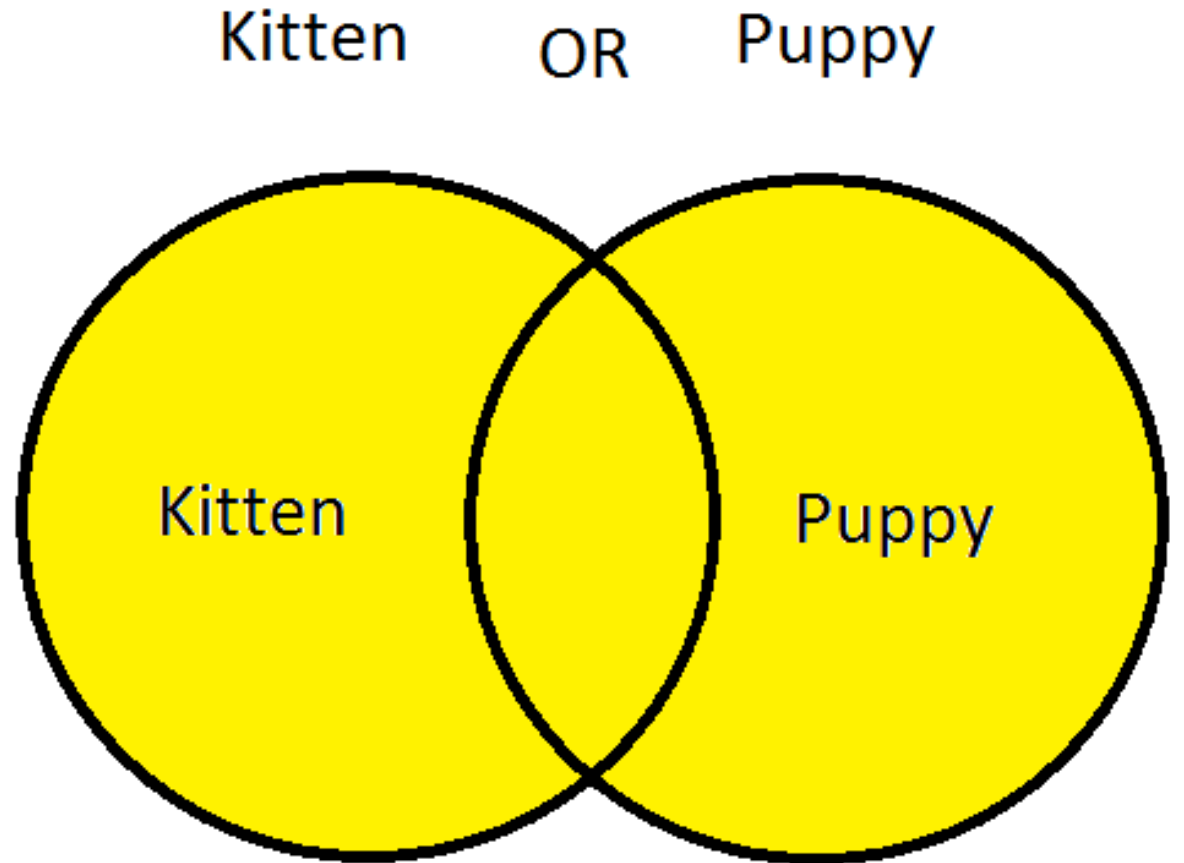
This is known as Boolean searching



OR

OR = MORE

You can use OR to expand a search in order to get MORE results

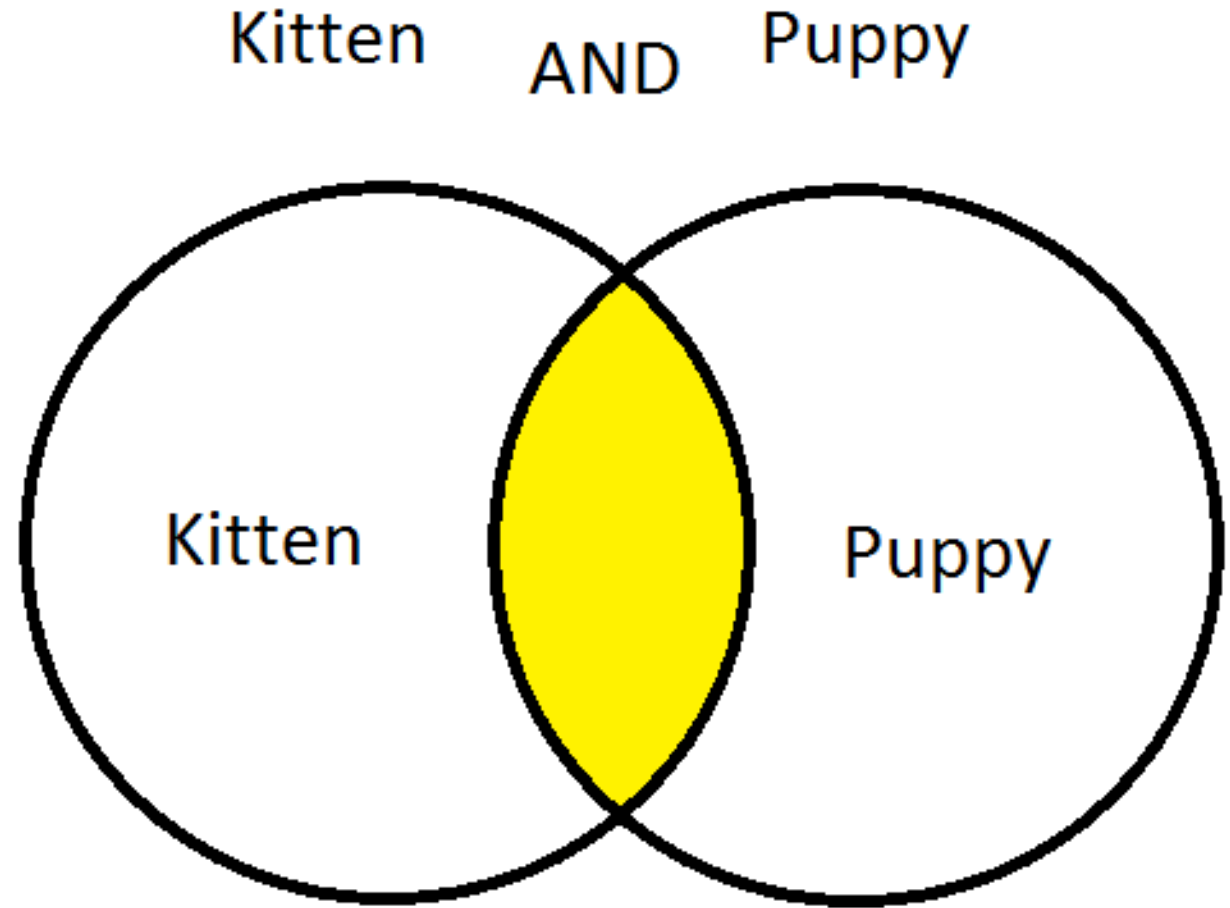


AND

AND = Less

AND requires **all** of the terms to be present

AND makes your search results **smaller**



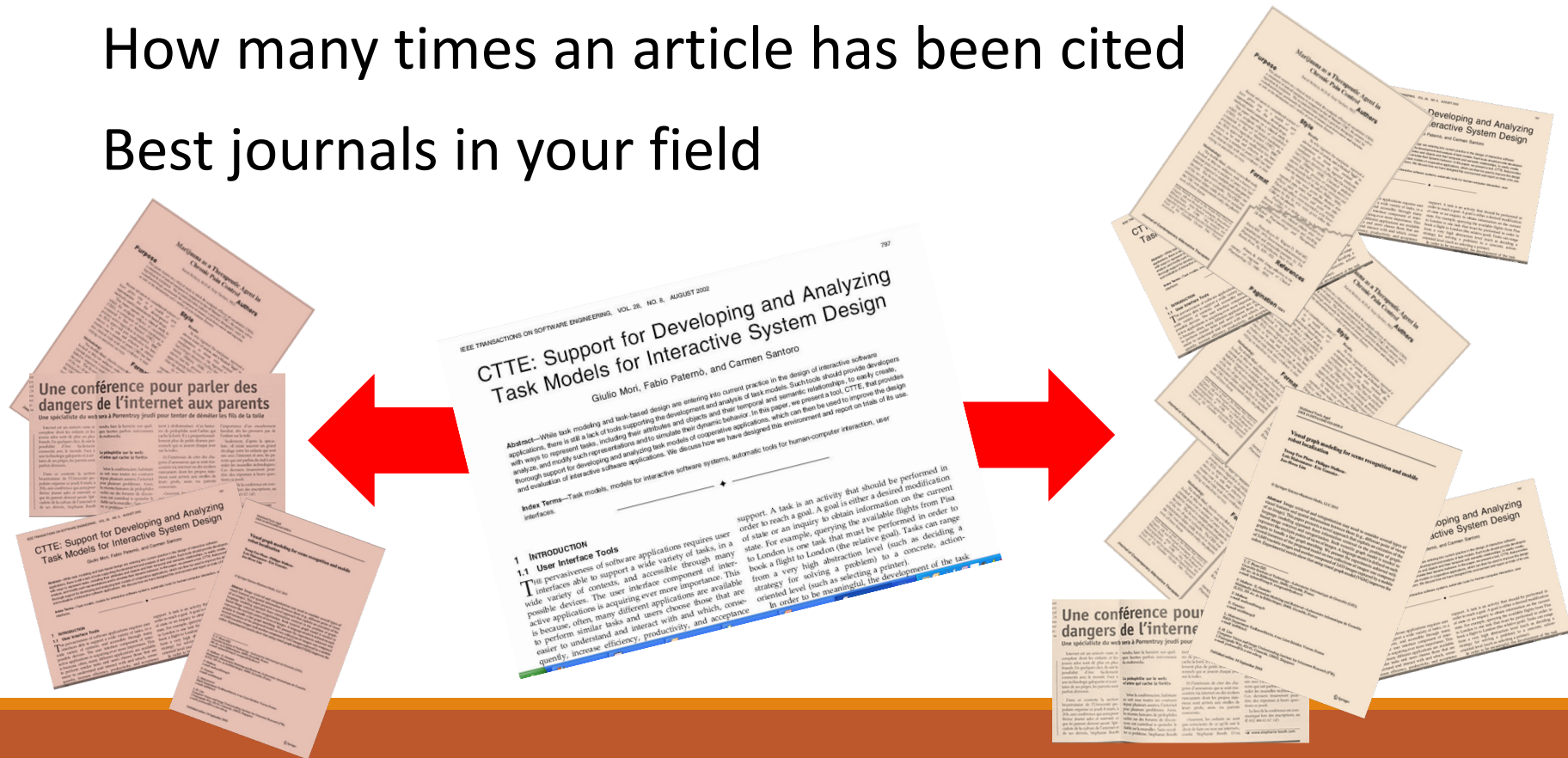
Citation searching

Which articles have cited an earlier article

Find articles on similar/related subject

How many times an article has been cited

Best journals in your field



AI/ChatGPT et al.

LARGE LANGUAGE MODEL BASED CHATBOTS IN RESEARCH SUPPORT

How can ChatGPT et al. help?

PRO'S



Help in the selection of methodology and metrics



Support editing & proof-reading



Can summarise a topic and draw attention to research gaps/ patterns in data



Help refine & develop a research question

CON'S



Large language model chatbot (Simulated intelligence)



lacks repeatability



not critical



Dubious referencing

Some good questions to ask



Does your institute allow it?



How can you use it whilst avoiding plagiarism issues?



How can you reference it?



How to devise a search with it? (Prompt engineering)

Citing and reference AI

whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) created by it

to acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location

taking care to vet the secondary sources it cites!

“Write 10 recipe blogs”

“Generate 10 quick-prep dinner meal ideas for recipe blogs, with each idea including a title and a one sentence description of the meal. These blogs will be written for an audience of parents looking for easy-to-prepare family meals. Output the results as a bulleted list.”

Prompt Engineering

References:

1. Angold, M. (1984). *The Byzantine Empire, 1025-1204: A Political History*. Longman.
2. Edbury, P. W. (1991). *The Kingdom of Cyprus and the Crusades, 1191-1374*. Cambridge University Press.
3. Gregory, T. E. (2016). *A History of Byzantium*. John Wiley & Sons.
4. Hill, B. (2018). *A History of Cyprus*. Cambridge University Press.
5. Jacoby, D. (1994). "The Coming of the Franks to Cyprus: A Reassessment of the Evidence." *Cyprus Review*, 6(1), 39-50.
6. Kyrris, C. (2008). "Cyprus under the Franks, Lusignans, Venetians and Ottomans (1191-1571)." *Mediterranean Historical Review*, 23(2), 123-150.
7. Metcalfe, A. (2006). *The Muslims of Medieval Italy*. Edinburgh University Press.
8. Papacostas, T. (2002). "The Economic History of Medieval Cyprus." *Al-Masaq*, 14(2), 229-244.
9. Pardini, M. (2010). "The Effects of Latin Rule on the Rural Landscape of Cyprus (1191-1571)." *Ruralia*, 7, 21-34.
10. Runciman, S. (1969). *A History of the Crusades: The Kingdom of Jerusalem and the Frankish East, 1100-1187*. Cambridge University Press.
11. Savvides, A. N. (1993). *Cyprus: The Struggle for Self-Determination in the 1940s*. Peter Lang AG.
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Any Questions?
