Writing your Dissertation / Final Project

For Bachelor of Economia e Commercio Students

Waqas Khan, PhD Candidate at DEMS Unimib

Outline

1. Dissertation foundations
2. Dissertation structure
3. Literature review
4. Methodology
5. Dissertation project management

Your dissertation journey

- At what stage are you in your dissertation?

A. Dissertation????
B. Have an idea about the topic
C. Submitted the proposal
D. Writing the literature review
E. Doing empirical work / primary research
F. Writing the methodology
G. Writing up results
H. Writing up discussion
I. Already Submitted

Characteristics of a good dissertation

A good dissertation should demonstrate:

- Deep understanding of your topic
- Originality, critical thinking
- Research skills
- Ability to formulate a clear argument/angle/agenda
- Coherence in terms of organisation and structure at macro and micro level
- Ability to undertake independent study
- …or whatever is written in your dissertation guidelines! → Check them up!!

UG and PG dissertations

Undergraduate dissertation

- Opportunity to develop intellectual independence
- Opportunity to specialise in depth in a topic of interest
- Mostly be using secondary sources
- Also primary sources (e.g. in sciences)

Taught Postgraduate dissertation

- Longer
- More reading and research
- Likely requiring primary sources or data
- Beginning to add to the scholarship
- Presents your own critical analysis on your research topic.
- A master level dissertation getting a distinction is a potential publication on a peer reviewed journal → take inspiration from publications in your field

Why dissertations?

- Get your degree, possibly with a good mark
- Explore an area of interest that you chose – enjoy it!
- Undertake research at your highest level
- Express your academic self

Research questions v hypotheses

RESEARCH QUESTIONS

- The work is **exploratory** (e.g. what increases students' creativity?)
- **Impossible or inappropriate** to formulate hypotheses
- **Qualitative** studies

HYPOTHESES

- The work is **explanatory** (cause and effect relationships) (e.g. playing table tennis increases students' creativity)
- The hypothesis **can be tested** empirically
- **Quantitative** studies

Mixed methods research

- Are you doing **mixed methods** research (qualitative and quantitative elements)?

- In this case you might have a **research question** *and* a **hypothesis**

What is a research question

Remember research is (Cottrell 2014):

1. A question
2. Method to answer the question
3. An answer

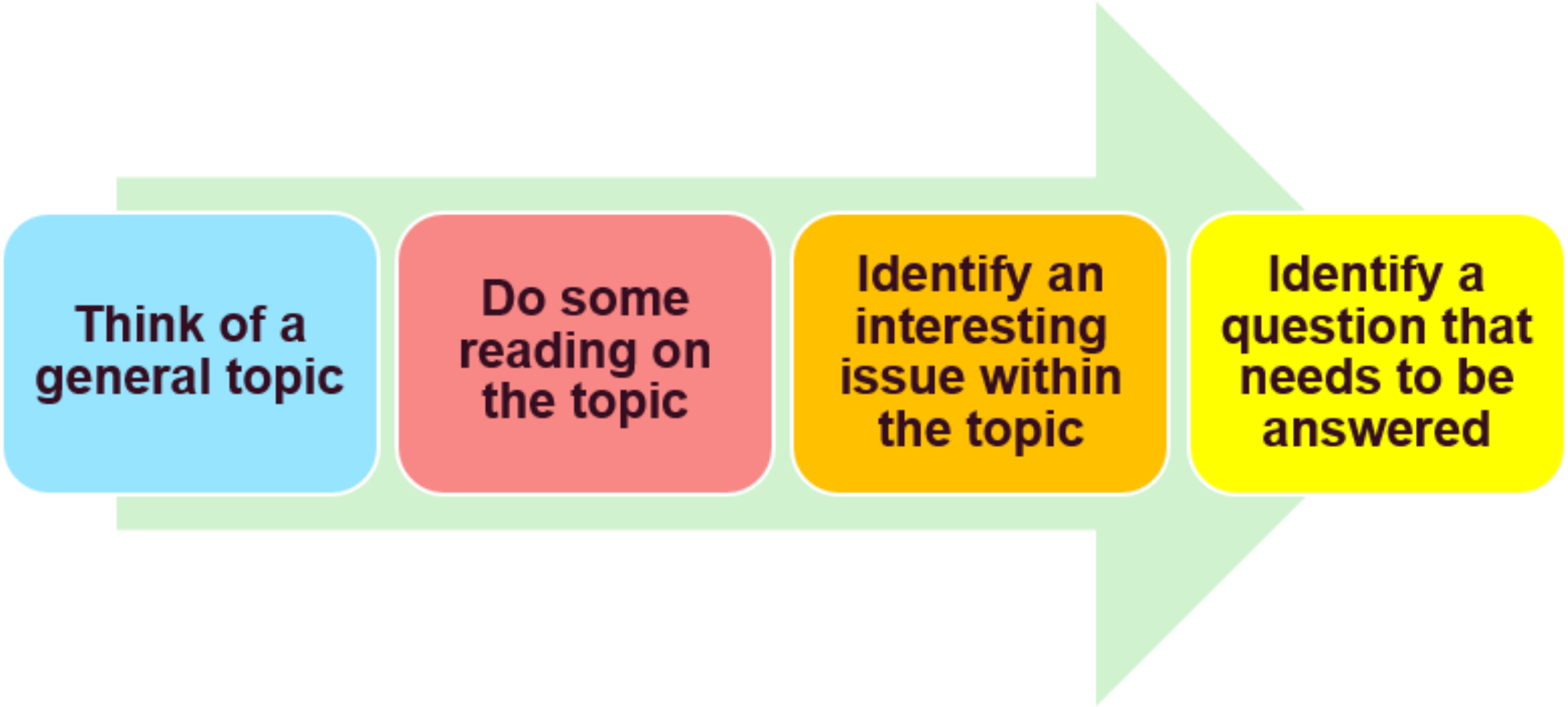
The research question is the overarching question that your dissertation seeks to answer.

The answer to your research question is your thesis statement – the central assertion or position that your paper will argue for.

RESEARCH QUESTION

THESIS STATEMENT (ANSWER)

How to find your research question



Good research questions

Feasible	• You must be able to answer it **within your means** (skills, time, financial means). • It is better to have a thoroughly researched answer to a **small question** than to fail to find the answer to one which is too big or diffuse!
Focused	• Deal with a **single problem** or issue that you can answer thoroughly. • We recommend the use of **one, maximum two**, research question(s).
Complex	• Find a topic that can be addresses in the **space of your dissertation**. • No short yes or no answers!
Relevant	• Find something relating to **your course**, and ideally helpful to **society** as well.
Original	• Try to fill **a gap in the knowledge**.

Look at the template below and consider each of the sections

Possible Research Question	Justification	Data Sources and Methods	Practicalities (e.g. resources and skills required)

Hypotheses

What is a hypothesis?

- Your prediction about what your research will find
- A tentative answer to a research question
- Based on existing theories and knowledge
- Testable (e.g. with experiments, observations, and statistical analysis of data)

Variables in hypotheses

- Generally, hypotheses propose a relationship between two or more variables.
  - An **independent** variable is something the researcher changes or controls.
  - A **dependent** variable is something the researcher observes and measures.

E.g., hypothesis: “Implementing a customer loyalty program will result in a measurable increase in repeat purchases and overall customer retention”

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E.g., hypothesis: "Implementing a customer loyalty program will result in a measurable increase in repeat purchases and overall customer retention"

In this example, the **independent** variable is a customer loyalty program – the assumed cause.

The **dependent** variables are repeat purchases and overall customer retention – the assumed effects.

Aims and objectives

- Aim:
  - the problem to be solved; the quest/ question to be answered
  - to provide an answer to the research question

- Objectives:
  - Divide the aim into several parts and address them individually
  - Include how to research, not only what is researched

- Choose SMART aims and objectives!

Dissertation titles

Dissertation titles should be:

- Descriptive and explanatory (not general)
- Precise
- Avoid using abbreviations and acronyms

Try to set out:

- The area of interest and focus
- The outcome (what you want to explore, prove or disprove)
- Important components/aspects of the research strategy e.g. situated nature, population, methodology

Or more simply set out two parts separated by a colon:

- A general area: A specific focus within the area
- Engaging bit: Informative bit

✓Look at past examples from your course

Dissertation title: examples

Identify the focus, outcome and key components

1.‘Barriers to Internet banking adoption: A qualitative study among corporate customers in Thailand’

2.‘The role of the A-beta protein in the pathogenesis of Alzheimer's Disease’

3.‘Changing Bodies: Matters of the Body in the Fiction of Octavia E. Butler’

Dissertation title task

Create a title for your dissertation (or look at your current title)

Consider:

1. What is my area of interest/focus (the issue I will be investigating)?

2. Have I indicated the outcome (what I want to explore, prove or disprove)?

3. Have I highlighted the key components/limits of the research (e.g. context, place, population, methodology)?

Examples…

"QUALITATIVE" DISSERTATIONS

RESEARCH TITLE: *"Focus and concentration during revision: what works according to students"*.

RESEARCH QUESTION: *"What do students feel that helps focus and concentration during revision?"*

RESEARCH AIM: *"The aim of this research is to investigate how can focus and concentration be improved according to students".*

RESEARCH OBJECTIVES: *"The objectives of this research are:*

1. *To understand the challenges to maintaining focus.*
2. *To identify strategies for enhancing concentration.*
3. *To explore subjective experiences of focus during revision.*
4. *To uncover perceptions of effective revision practices.*

"QUANTITATIVE" DISSERTATIONS

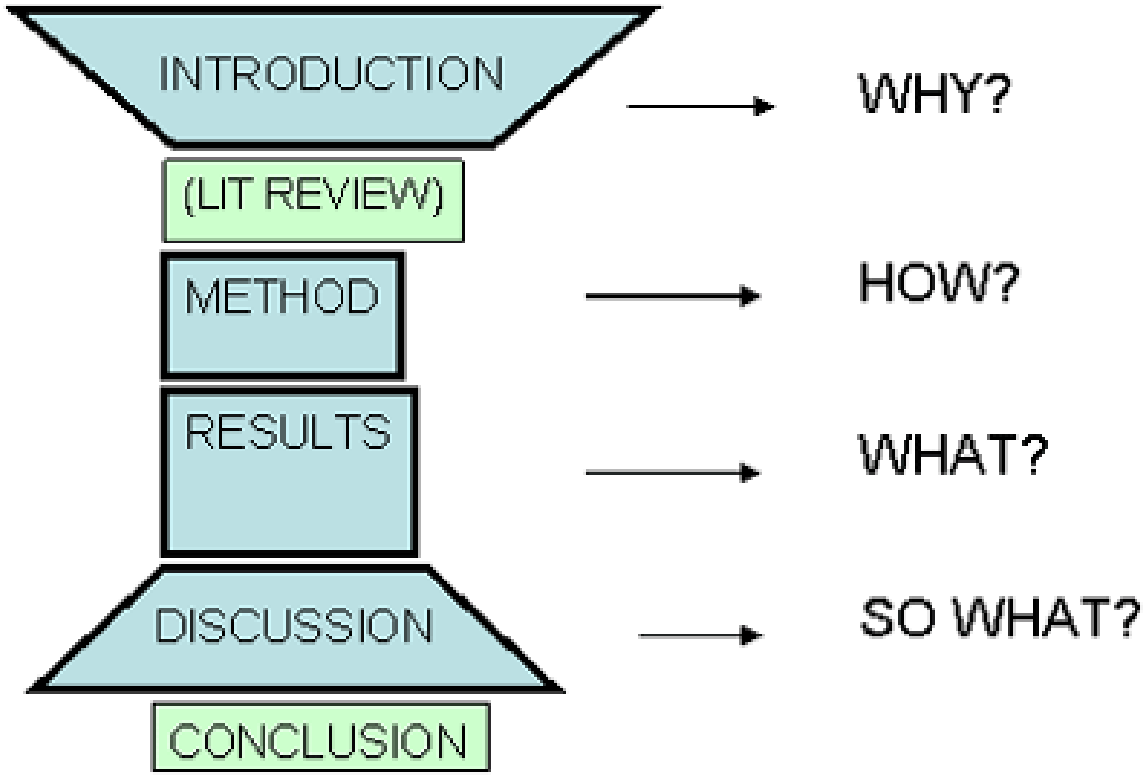
- RESEARCH TITLE: *"Focus and concentration during revision: an evaluation of the Pomodoro technique"*.
- HYPOTHESIS: *"Using the pomodoro technique during revision improves focus and concentration"*
- RESEARCH AIM: *"The aim of this research is to assess the impact of the use of the pomodoro technique on focus and concentration during revision".*
- RESEARCH OBJECTIVES: *"The objectives of this research are:*

1. *To assess the effectiveness of the Pomodoro technique.*
2. *To measure the impact on focus during revision.*
3. *To analyze concentration levels before and after implementation.*
4. *To Evaluate the user satisfaction with the technique.*

Structure

Standard structure

1. Abstract
2. Introduction
3. Literature Review
4. Methodology
5. Results
6. Discussion
7. Conclusion
8. Bibliography
9. Appendix



Extended-essay structure

Many dissertations in the humanities have a thematic structure (e.g. English Literature):

- Introduction
- Background (sometimes part of the introduction and not a separate chapter)
- Theme/text 1
- Theme/text 2
- Theme/text 3
- Conclusion
- Bibliography

The chapters will include analysis of texts/ research material; exploring and connecting academic theories/research to develop an argument.

Hybrid structures

Conventional titles

1. Introduction
2. Literature review
3. Methodology

6. Conclusion

Uniquely titled sections

4. The origins of Excalibur
5. Journey to Croydon

Literature reviews

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A critical literature review involves **critical evaluation** and **synthesis**

Ingredients for a good literature review for a dissertation

EXISTING INFORMATION

- **Background information** on the research field
- Positioning of your research in **academic wider context**
- The materials are selected, organised and presented **clearly**

PROBLEMS

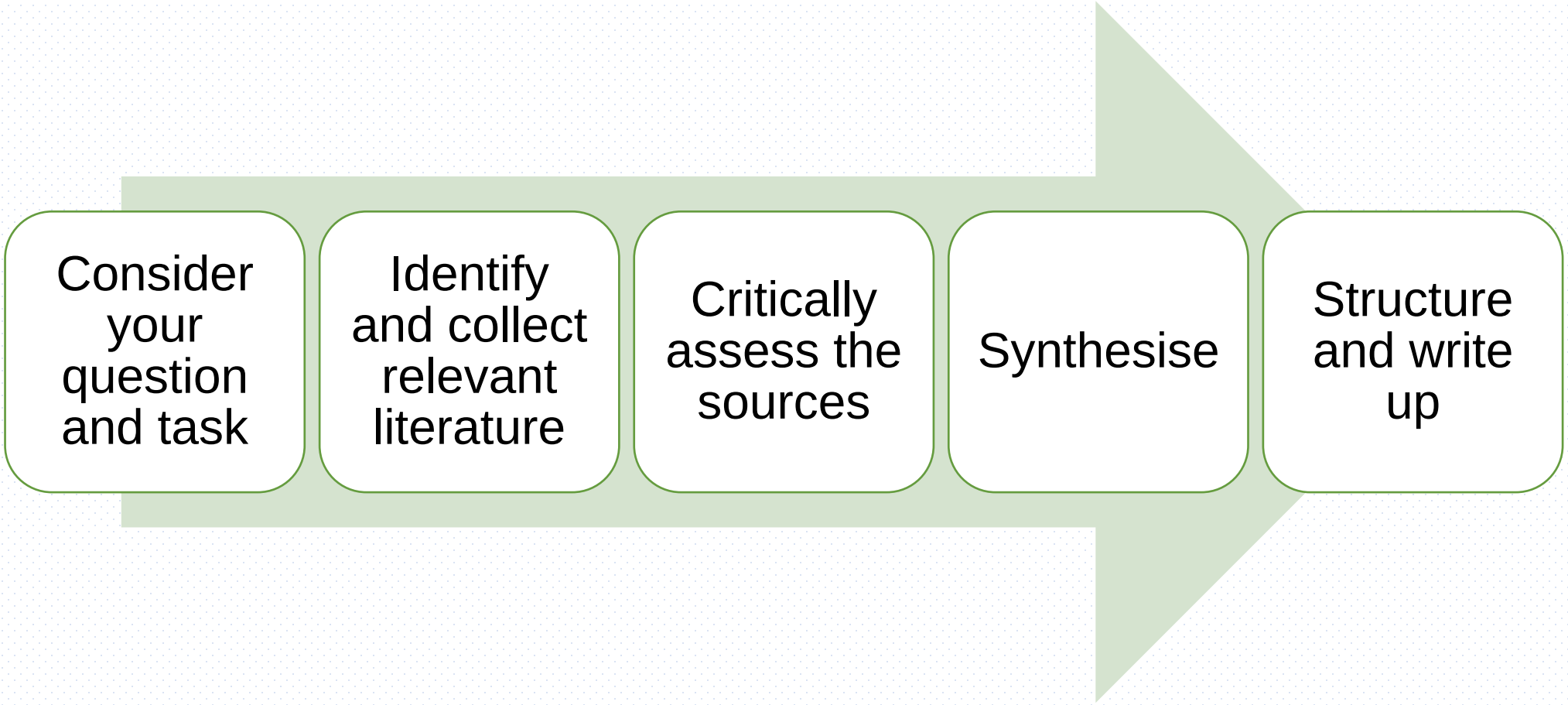
- Points of **contention, complexities, debates**
- **Questioning and critical evaluation** of the research in the field – what are the strong works and why? What are the weak works and why?

YOUR RESEARCH SPACE

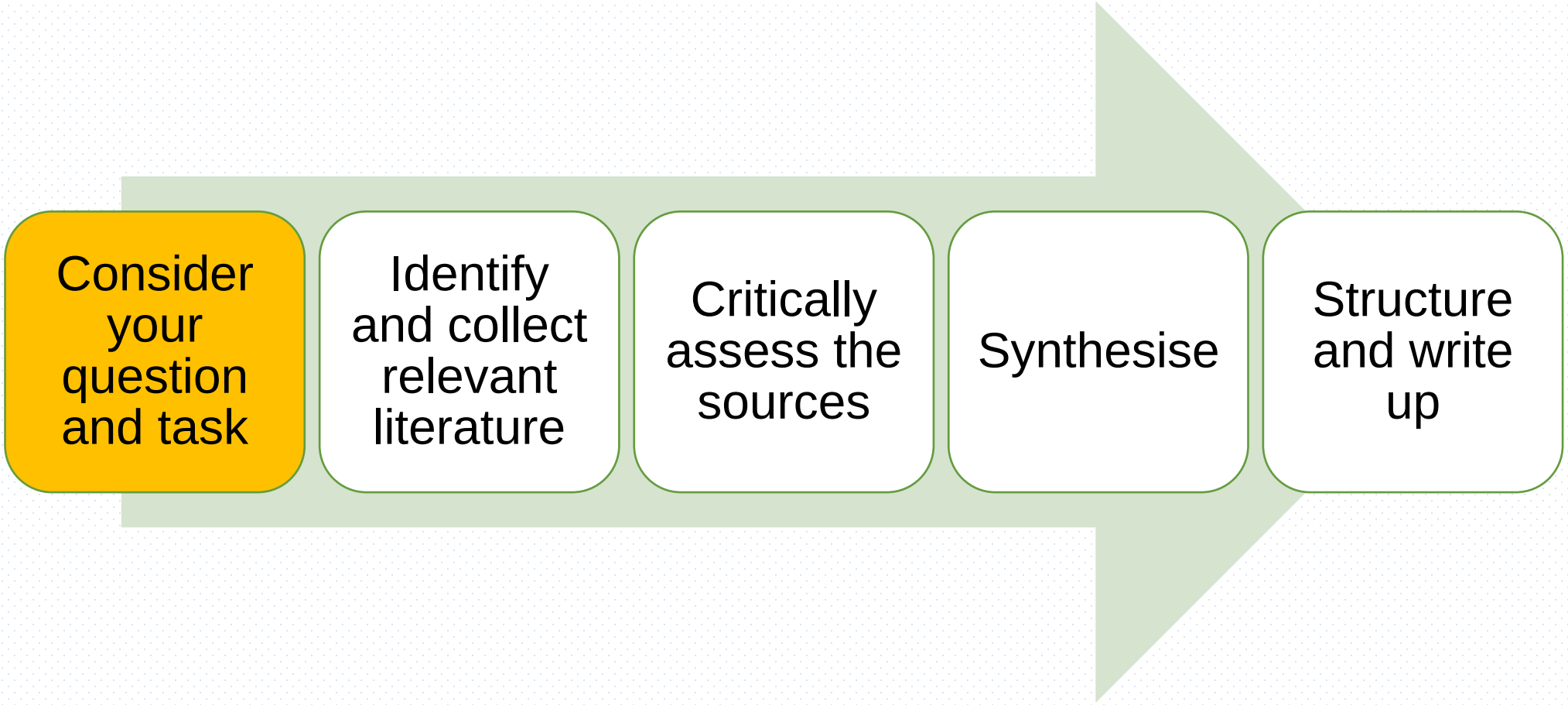
- Identification of **gaps in the literature** – what questions haven't been answered, or need to be answered better?
  - Support to your research question
- The significance and **value of your research**

Stages of writing a literature review

Literature review process



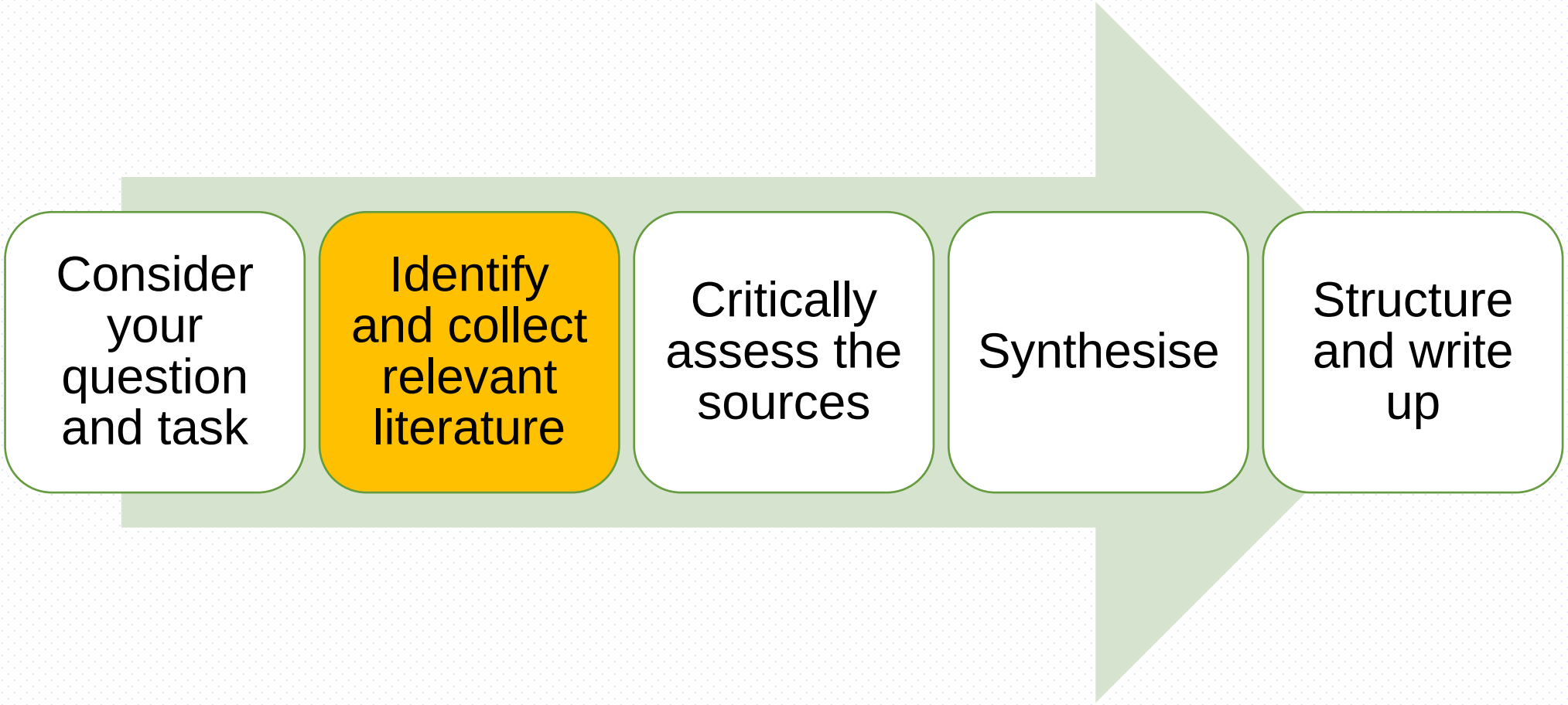
Literature review process



Stage One: focus on your question and task

- Consider which topic or field is being examined
  - What is your research question, or hypothesis?
- What are its component issues?
- Where will you set your boundaries? (e.g. criteria for searching based on field, time, location)

Literature review process



Stage Two: Identifying and collecting relevant work

Finding relevant materials to the subject that is being explored

Sources: What?

Focus on **academic** literature

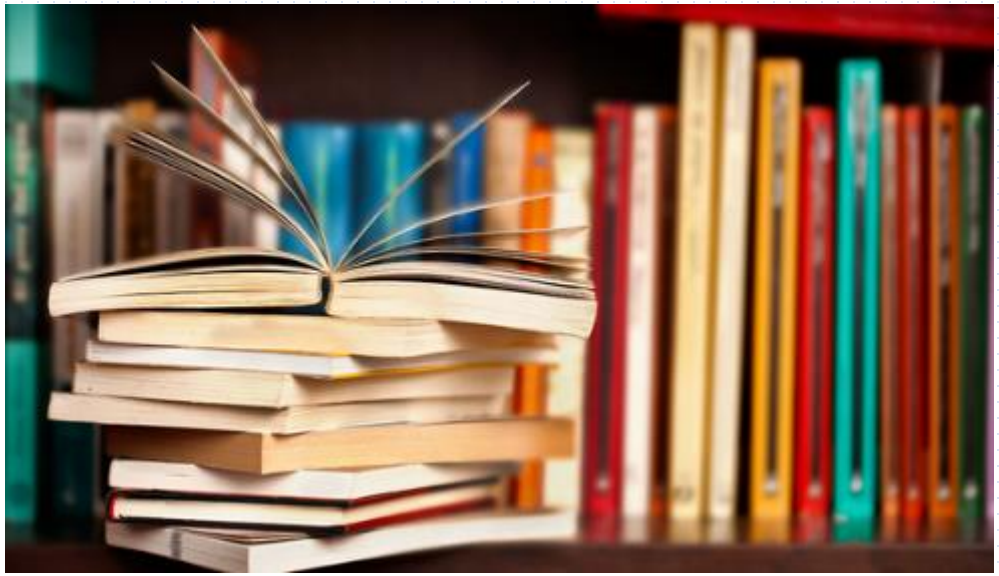
- Books
- Scholarly articles

You can also use **grey** literature (official but not peer reviewed; could be weak on methodology and referencing)

- Company reports
- Government reports
- Preprints
- Conference proceedings

Use **authoritative** sources

Use **relevant** sources - don't get side-tracked!



GRAB

94) News | 95) Settings | 97) Feedback | World Equity Indices

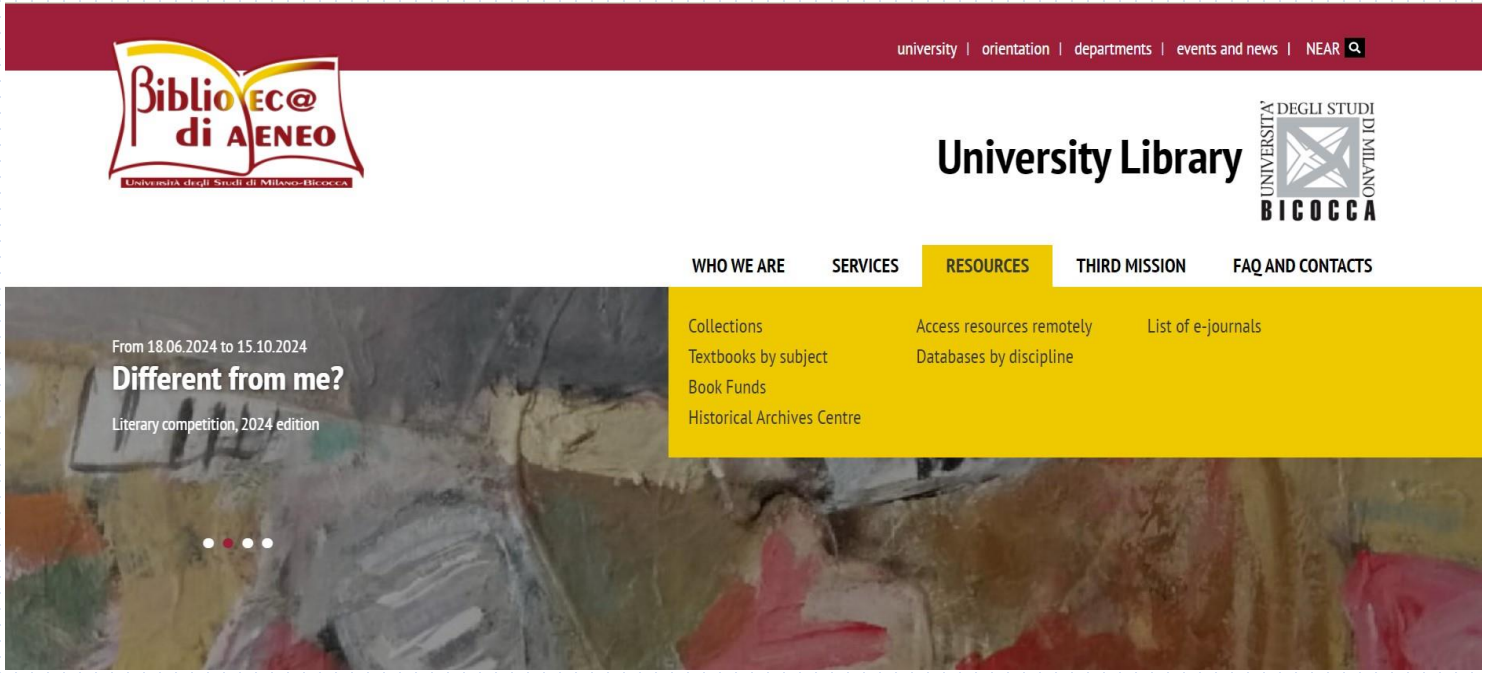
Standard | Movers | Volatility | Ratios | Futures | AVAT vs | 10d | % Ytd | USD

1) Americas	2day	Value	Net Chg	% Chg	Δ AVAT	Time	% Ytd	% YtdCur
11) DOW JONES		16041.36	-128.86	-0.80%	+19.65%	14:18	-3.23%	-3.23%
12) S&P 500		1822.90 d	-10.18	-0.56%	+20.66%	14:03	-1.38%	-1.38%
13) NASDAQ		4015.40	-38.71	-0.95%	-1.49%	14:18	-3.86%	-3.86%
14) TSX		14249.15 d	-58.85	-0.41%	-8.97%	13:58	+4.61%	+1.34%
15) MEX IPC		40054.08 d	-393.88	-0.97%	-18.14%	13:58	-6.26%	-6.25%
16) IBOVESPA		51697.82	+570.34	+1.12%	-17.40%	14:18	+0.37%	+7.27%
2) EMEA								
21) Euro Stoxx		3116.54 d	-36.32	-1.15%	+16.91%	11:50 c	+0.24%	+1.38%
22) FTSE 100		6561.70 d	-80.27	-1.21%	+4.08%	11:35 c	-2.78%	-1.64%
23) CAC 40		4365.86 d	-47.63	-1.08%	+22.32%	12:05 c	+1.63%	+2.79%
24) DAX		9315.29 d	-139.25	-1.47%	+37.85%	12:30 c	-2.48%	-1.37%
25) IBEX 35		10205.40 d	-130.70	-1.26%	+14.05%	11:38 c	+2.91%	+4.08%
26) FTSE MIB		21198.79 d	-230.30	-1.07%	-9.29%	11:30 c	+11.76%	+13.04%
27) AEX		395.64 d	-6.26	-1.56%	+19.50%	12:05 c	-1.53%	-0.41%
28) OMX STKH30		1344.12	-10.87	-0.80%	+43.00%	12:37 c	+0.84%	-0.55%
29) SWISS MKT		8298.82 d	-121.76	-1.45%	+17.34%	11:30 c	+1.17%	+3.23%
3) Asia/Pacific								
31) NIKKEI		13960.05 d	-340.07	-2.38%	+28.57%	02:28 c	-14.31%	-11.13%
32) HANG SENG		23003.64 d	-183.32	-0.79%	+18.26%	04:01 c	-1.30%	-1.28%
33) ASX 200		5428.65	-52.10	-0.95%	-0.12%	04/11 c	+1.43%	+6.92%

Sources: Where?

Conduct a literature search

- Library search
- Google Scholar
- Internet
- Data bases



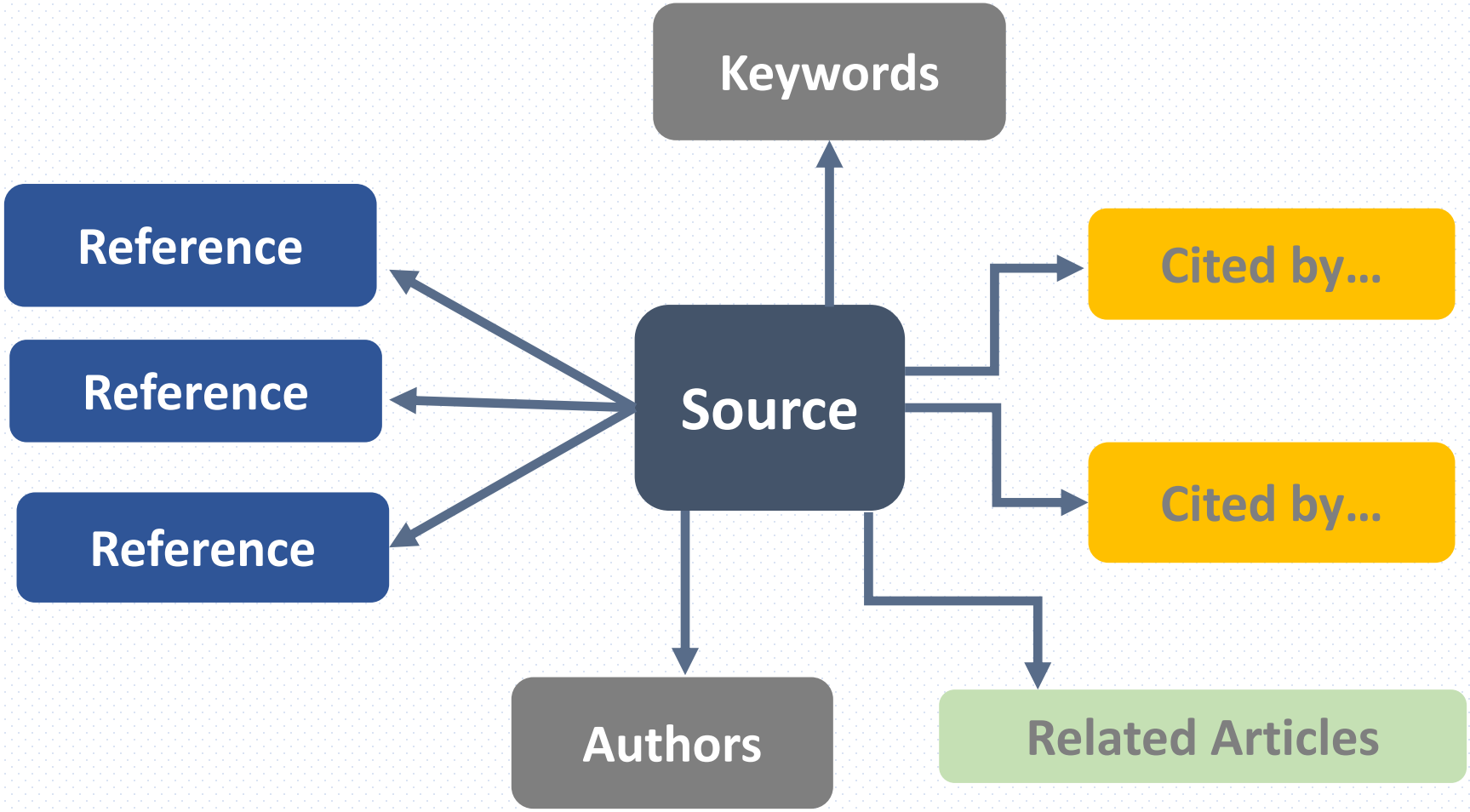
You can start with…

- Your reading lists
- Review articles

Useful leads…

- Lists of references from articles you've read

Using your sources to find further reading



Google Scholar

inflation uk emplyment

SIGN IN

Articles

About 1,010,000 results (**0.20** sec)

My profile | My library

Any time
Since 2024
Since 2023
Since 2020
Custom range...

Sort by relevance
Sort by date

Any type
Review articles

include patents
include citations

Create alert

Showing results for inflation uk ***employment***

Search instead for inflation uk emplyment

Inflation Dynamics and the Labour Share in the **UK** [PDF] econstor.eu

N Batini, B Jackson, S Nickell - 2000 - econstor.eu

… We do so by subtracting from the numerator of the self-**employed** adjusted share, the compensation of **employees** by the general government; and by removing from the denominator of …

Save | Cite | Cited by 133 | Related articles | All 10 versions

[BOOK] Taxing pollution instead of jobs: Towards more **employment** without more **inflation** through fiscal reform in the **UK**

T Barker - 1997 - books.google.com

… pollution instead of **employment**: greenhouse gas abatement through fiscal policy in the **UK**', … more emphasis on achieving higher **employment** without higher **inflation**. It reports on an …

Save | Cite | Cited by 38 | Related articles | All 2 versions

Models of **inflation** in the **United Kingdom**: an evaluation [PDF] sagepub.com

SGB Henry, MC Sawyer, P Smith - National Institute Economic …, 1976 - cambridge.org

… of **inflation** that have been proposed for the **UK**. Primarily these are wage **inflation** models, … Less sophisticated methods of estimation were also **employed**, and none gave support to …

Save | Cite | Cited by 103 | Related articles | All 11 versions

How to organise research notes

Try to keep records of what you are reading organising the materials by **key topics**

- Make most notes using **your own words**
- Record direct **quotes** only when it's important to have the exact words that someone else has used
- Take note of the **full bibliographic details** and page numbers
- Look for **connections** between what the current text says and anything you have already read: do the authors agree? Disagree?
- **Write what you think of the sources (strengths, weaknesses…)**

By organising the materials by key topics you can start to

- Synthesise information
- Develop arguments
- Reflect on what material you have, or still do not have

Topic: "The impact of Brexit on the economy".

Issues to be researched and discussed:

CONTENTS

TRADE

"Trade will diminish...." (Smith 2019, p9)

SECTORS:

MANUFACTURING

The manufacturing sector is predicted to experience growth... (Taylor 2018)

FINANCE

Banks are retreating from London... (The Banking Times 2019)

Passporting is an issue (Dickenson 2018)

Therefore it seems that...

HIGHER EDUCATION

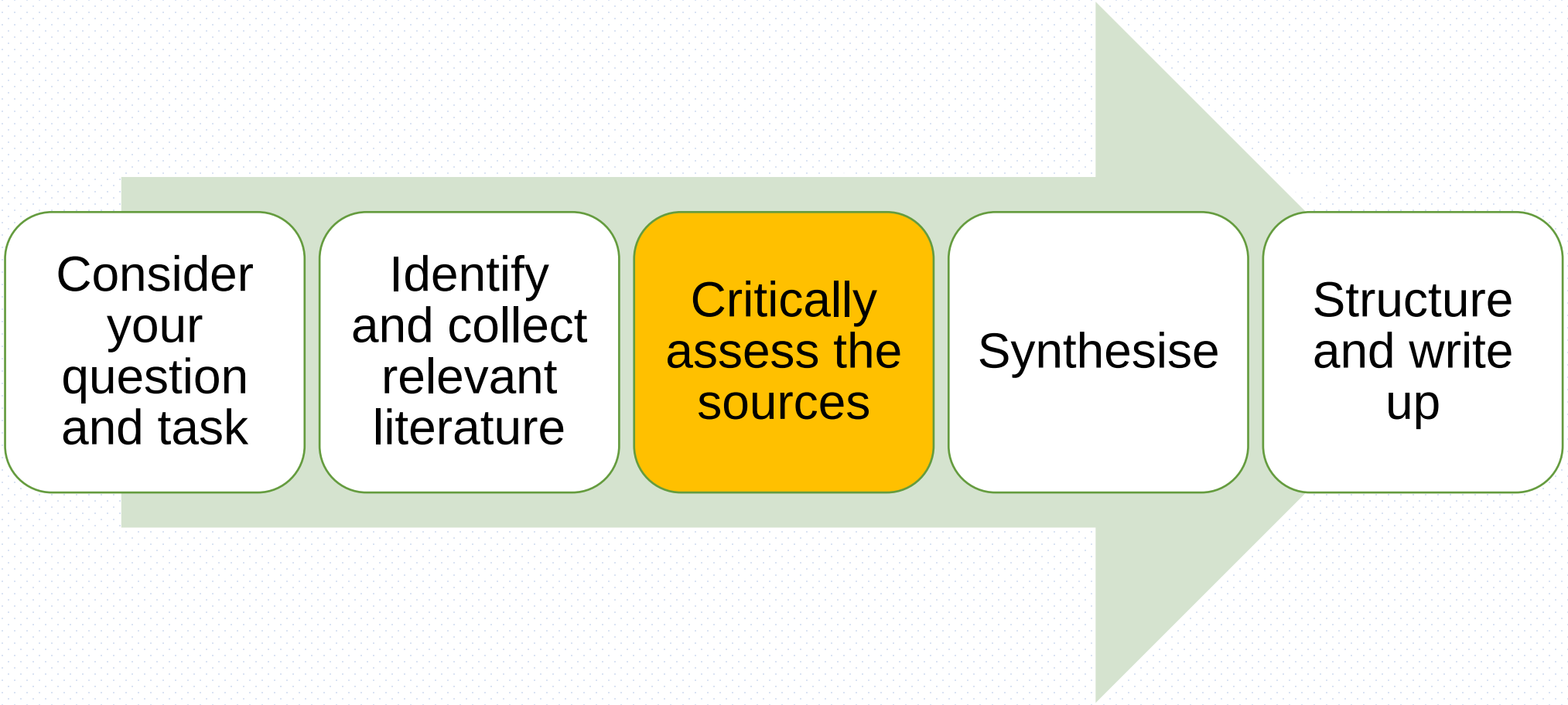
Scotts (2019) and Taylor (2018) disagree on the future of British Universities. Scotts maintains that... (2019, p.231). Taylor (2018, p 45) points out that...

TAX REVENUES

"Tax revenues will increase as..." (Dickenson 2018, p67)

In the long-term tax revenues will decrease... " (Smith 2019, p13)

BIBLIOGRAPHY


Consider your question and task
Identify and collect relevant literature
Critically assess the sources
Synthesise
Structure and write up

Stage three: Critically assessing the quality of studies

What does critical mean?

The English word ‘criticism’ comes from the ancient Greek verb *krino* meaning ‘to judge’. A ‘critic’ was a judge, who

- investigated the evidence
- tested the evidence (cross-examined witnesses)
- considered alternative arguments and explanations
- keeps an open mind
- is unbiased
- reached a conclusion (verdict)

Definition

Critical thinking is defined as

“the objective analysis and evaluation of an issue in order to form a judgement.”

(Oxford Dictionaries)

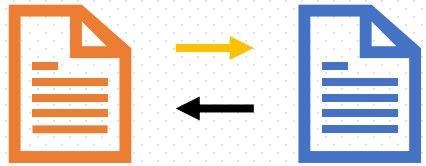
Critical writing in a literature review can include…

Source level

- Highlighting the importance of a contribution, with reasons
- Highlighting the weaknesses of a study, with reasons

Inter-source level

- Making connections between sources
- Comparing and contrasting different theories, concepts etc



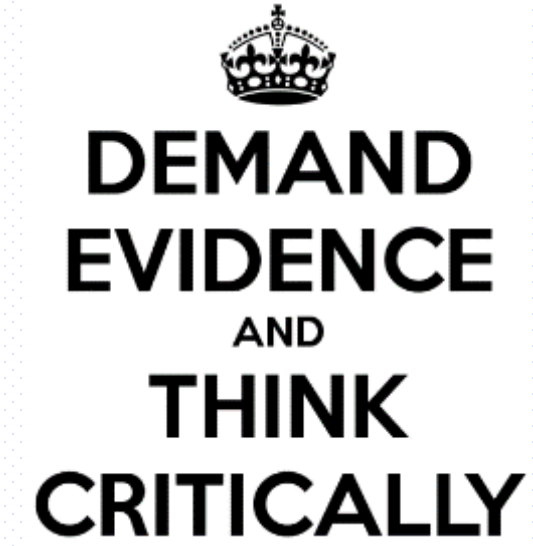
Literature level

- Synthesising and reformulating arguments from various sources to create new/more developed point of view, shedding new light on the topic
- Identifying gaps in the literature

Adapted from Ridley, D. (2008). *The literature review: a step-by- step guide for students*. London: Sage

Critical evaluation of information: Questions to ask (source level)

1. Who are the **authors**? Are they biased or do they have an agenda? Are they informed? What are their values/theoretical perspectives?
2. What is the **argument** / conclusion / message / opinion of the source?
3. What is the **evidence**? Is it up to date? What are the methods? Where was the research undertaken? How representative was the sample?
4. Is the text **logical**? Does the evidence support the argument? Are there undue generalisations? Rhetoric? Emotional language?
5. Is anything **missing/omitted**?



Check with other sources

Complete your critical analysis by:

- Fact checking
- Comparing with what other authors say

Read a lot: In general, the more sources you can use, and the more varied they are, the more likely you are to make a sound judgment

What is wrong with this paragraph?

Dahik et al (2020) found that, out of a survey of 12,000 employees, many reported an increase in productivity during work from home, although there were significant variations in the outcomes dependent on the nature of work. Thus, for those employees who continued working during the covid-19 pandemic, there has been some evidence of productivity and wellbeing improvements.

Example of how to evaluate research in your writing

For those employees who continued working, particularly those who could work from home, there has been some evidence of productivity and wellbeing improvements. For example, one consulting firm surveyed 12,000 employees and reported an increase in productivity for many, although noting significant variations in the outcomes dependent on the nature of work (Dahik et al., 2020). However, much of the data reporting that improved productivity have been self-reported and collected relatively early in the pandemic and should be interpreted cautiously, given the concern that many participating employees are likely to have felt over their job security during that period.

Collings, D., Nyberg, A., Wright, P. and McMackin, J. (2021). Leading through paradox in a COVID-19 world: Human resources comes of age. *Human Resource Management Journal*. Available from 10.1111/1748-8583.12343.

Let’s think of another topic…

Social media can be a helpful method for generating referrals with respect to recruiting the candidate (Smith and Kidder, 2010) and has surpassed online job boards as the preferred way to acquire talent (Brotherton, 2012). HR managers are maximizing the function of social through the use of their employees’ social networks as a cost-conscious approach known as “social recruitment” (Doherty, 2010).

What can be wrong with using social media to advertise jobs?

Gibbs, C., MacDonald, F. and MacKay, K. (2015). Social media usage in hotel human resources: recruitment, hiring and communication. *International Journal of Contemporary Hospitality Management*, 27 (2), 170-184. Available from 10.1108/ijchm-05-2013-0194.

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What can be wrong with using social media to advertise jobs?

-Social media can reveal personal information

-Not everyone is on social media

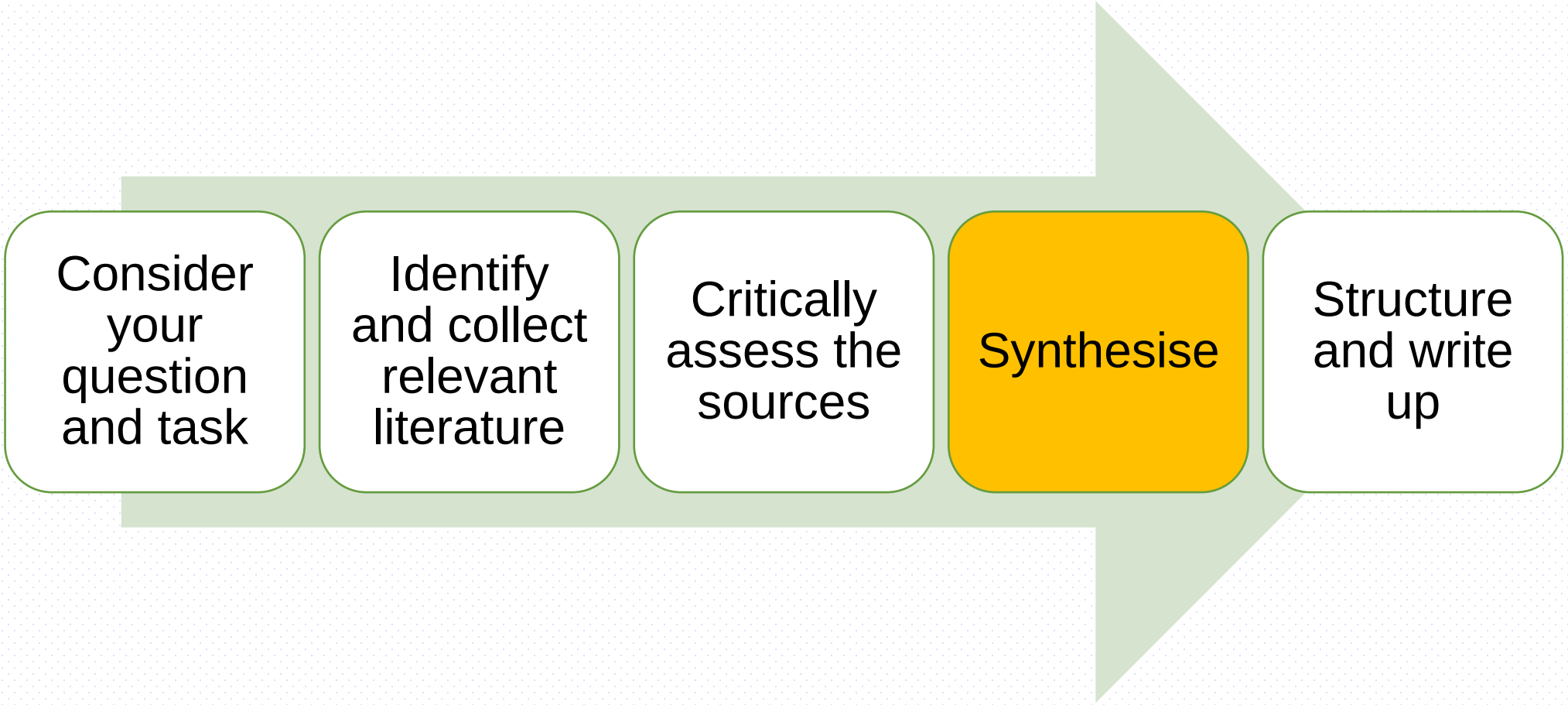
-Fake profiles

Gibbs, C., MacDonald, F. and MacKay, K. (2015). Social media usage in hotel human resources: recruitment, hiring and communication. *International Journal of Contemporary Hospitality Management*, 27 (2), 170-184. Available from 10.1108/ijchm-05-2013-0194.

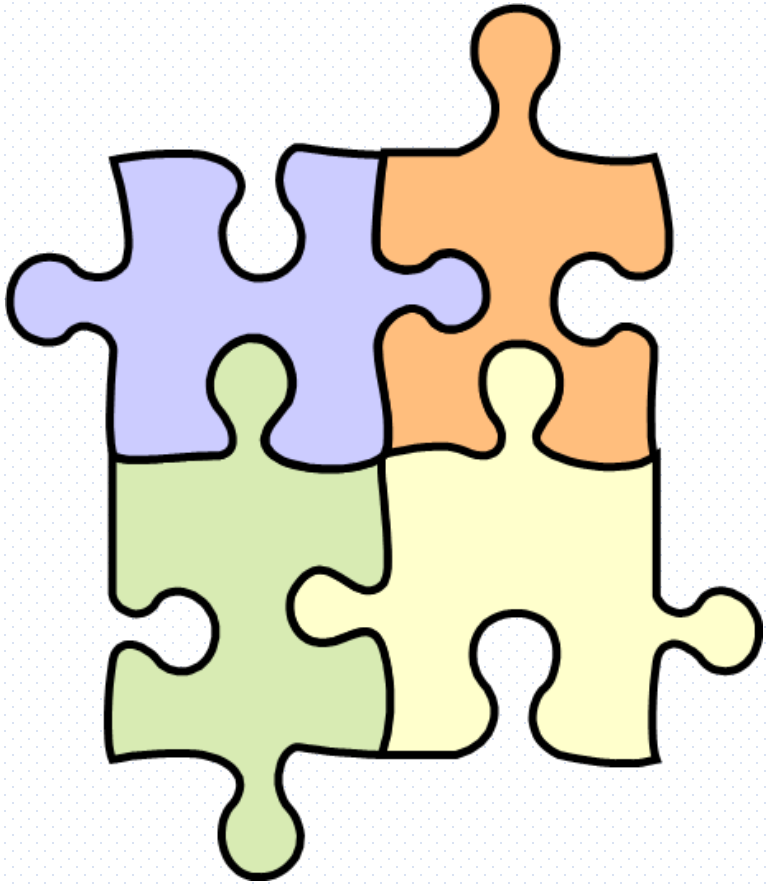
Example of how to evaluate research in your writing (Economics)

Smith and Fry (2014) label the London Olympic Games as a success. However, they fail to consider how the £8.7bn that was spent on them could have been used otherwise to improve the lives of Londoners, and more broadly, Britons. In other words, they failed to consider the opportunity cost of the Games…

Literature Review Process



Stage four: synthesis



Synthesis

With synthesis you summarise, combine and contrast the ideas of more than one source to discuss a certain issue.

How to do it:

- Identify topics you need to address in your literature review
- Identify texts dealing with these topics
- For each topic, compare and contrast what the texts say
- Organise your text **topic by topic, rather than source by source.**

Synthesis example: Identifying key points in the sources

Literature identified to write a paragraph on the debate around animal testing

Smith: **Animal testing is necessary to save human lives**. Incidents have happened where humans have died or have been seriously harmed for using drugs that had not been tested on animals.	**Turner**: **Animal testing is not always used to assess the toxicology of a drug**; sometimes painful experiments are undertaken to improve the effectiveness of cosmetics.
Chowdhury: **Animals feel pain** in a way that is physiologically and neuroanatomically similar to humans.	**Panatta and Hudson**: **Animals in distress can suffer psychologically**, showing symptoms of depression and anxiety.

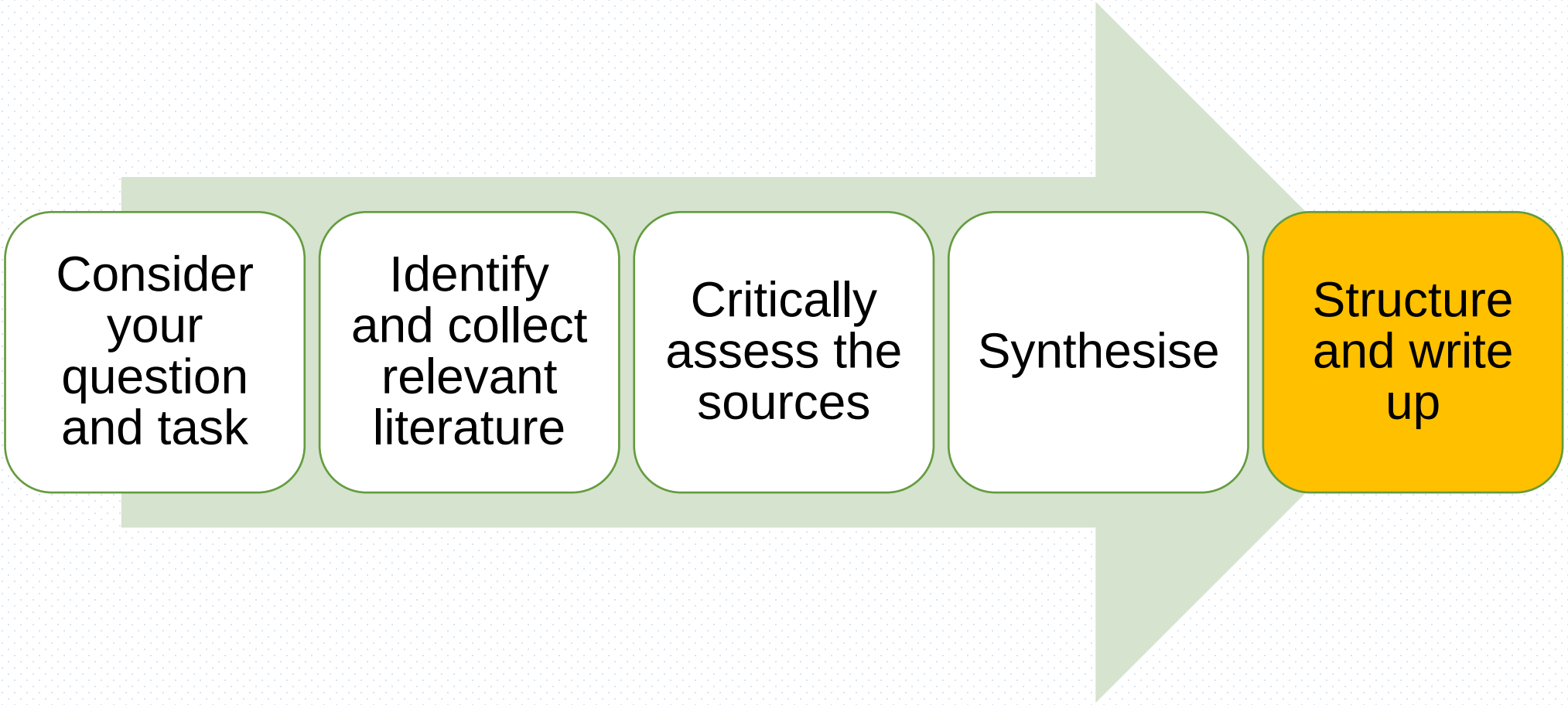
Synthesis example: using the synthesis in a paragraph

Animal experimentation is a subject of heated debate. Some argue that painful experiments should be banned. Indeed it has been demonstrated that such experiments make animals suffer physically and psychologically (Chowdhury 2012; Panatta and Hudson 2016). On the other hand, it has been argued that animal experimentation can save human lives and reduce harm on humans (Smith 2008). This argument is only valid for toxicological testing, therefore not for tests that, for example, merely improve the efficacy of a cosmetic (Turner 2015). It can be suggested that animal experimentation should be regulated to only allow toxicological risk assessment, and the suffering to the animals should be minimised.

Synthesis

https://youtu.be/Ei-EuydsYWQ

Literature Review Process



Stage 5: Structure and write up your Literature Review

- Structure
- Paragraphs
- Language

Structure

1. Introduction
2. Body:
   - Chronological
   - By theme
   - By sector
   - By development of idea
   - OR combination of above
3. Conclusion

Literature reviews

A clear video on structuring literature reviews:
https://www.youtube.com/watch?v=QE_Us8UjS64&feature=youtu.be

Structure: Introduction

A paragraph that can include some of the following:

✓**Outlining the scope of your literature review – sources, topics to be discussed/ the aims of your review**

✓Where/how does your topic fit into the wider subject area

✓Why the topic is important- is it an area of current interest/significance?

✓Highlight the relevant issues or debates that have characterised your field of research

✓**Has the topic been widely researched? Or not?**

✓Providing a rationale – i.e. reason and aims – for reviewing the literature on the specific topic

✓**Signposting** for the reader, explaining the organisation / sequence of topics covered in the review

Structure: main body

✓An analysis of the literature according to a number of themes or topics that overlap with your research.

✓It may have headings and sub-headings!

✓You can write your literature review one section at a time, but make sure you read through them all to check they link together and tell a coherent "story".

Questions to ask of the literature

Who are the key authors?

What are the core issues, or debates?

What are the main theories?

What are the areas of agreement?

What are the areas of disagreement?

What are the gaps in the research?

What new research might be valuable?

Denscombe, M. (2012). Research Proposals, a Practical Guide. Maidenhead: Mcgraw-Hill p.63

Tips for the main body

- ✓Provide strong sentences at beginnings of paragraphs
- ✓Signpost throughout
- ✓**Link back - Write "*so what*" summary sentences throughout the review to aid in understanding of why it's relevant to your research**.
- ✓Use language to show confidence:
  - ✓There is clearly a link.../
- ✓Use language to show caution:
  - ✓This suggests a possible link...
- ✓Use you own voice to comment on and evaluate the literature
- ✓Avoid he said… she said…..
- ✓Use reporting verbs strategically to improve criticality and use your voice

Structure: Conclusion

- ✓Concluding how your literature review has met the aims outlined in your introduction
- ✓Summarising and synthesising the main issues/themes related to your topic area
- ✓Highlight the gap that your research seeks to fill (if applicable)

Additional Tips

- If a key article/book is very important to the development of your research ideas then give extra space to critique in more depth.

- Wherever possible use original source material rather than summaries or reviews by others.

Write Strong Paragraphs

1. **Topic sentence**
   - Introduces the topic and states what your paragraph will be about
   - May tie to the previous paragraph
   - Often more general and the main point of the paragraph
   - Usually at or near the beginning
2. **Supporting sentences – develop your paragraph**
   - Expand on the point you are making: explain, analyse, support with examples and/or evidence.
3. **Concluding statement**
   - Show how your evidence backs up your point
   - May tie your point back to the question
   - May tie to the next paragraph

Example of strong paragraph

Topic sentence

Development

Conclusion/link

Animal experimentation is a subject of heated debate. Some argue that painful experiments should be banned. Indeed it has been demonstrated that such experiments make animals suffer physically and psychologically (Chowdhury, 2012; Panatta and Hudson, 2016). On the other hand, it has been argued that animal experimentation can save human lives and reduce harm on humans (Smith, 2008). This argument is only valid for toxicological testing, therefore not for tests that, for example, merely improve the efficacy of a cosmetic (Turner, 2015). It can be suggested that animal experimentation should be regulated to only allow toxicological risk assessment, and the suffering to the animals should be minimised.

Example of strong paragraph (II)

Topic sentence

Development

Evaluation

For those employees who continued working, particularly those who could work from home, there has been some evidence of productivity and wellbeing improvements. For example, one consulting firm surveyed 12,000 employees and reported an increase in productivity for many, although noting significant variations in the outcomes dependent on the nature of work (Dahik et al., 2020). However, much of the data reporting that improved productivity have been self-reported and collected relatively early in the pandemic and should be interpreted cautiously, given the concern that many participating employees are likely to have felt over their job security during that period.

BREAK!

Methodology

Methods and methodology

Methods

Methods are the means to research and answer the research question. Methods include techniques and procedures used to obtain and analyse data (Saunders, Lewis and Thornhill, 2015, p4)

Methodology

As the name would suggest, methodo-logy is the *logos*, the reasoning, on the methods.

This is why you normally would have a methodo*logy,* rather than methods, chapter in a dissertation.

The methodology chapter is not simply a recollection and list of the methods used. Instead, it includes a reflection on the justification and limitations of the methods you used.

Remember what research is…

1. A question (often identifying a potential problem for a group or people or businesses/organisations etc.)

2. **Methods of collecting data to arrive at an answer**

3. The answer (your analysis of the data)

“a process that is undertaken in a systematic way with a clear purpose, to find things out” (Saunders, Lewis and Thornhill, 2019, p. 5)

Getting started

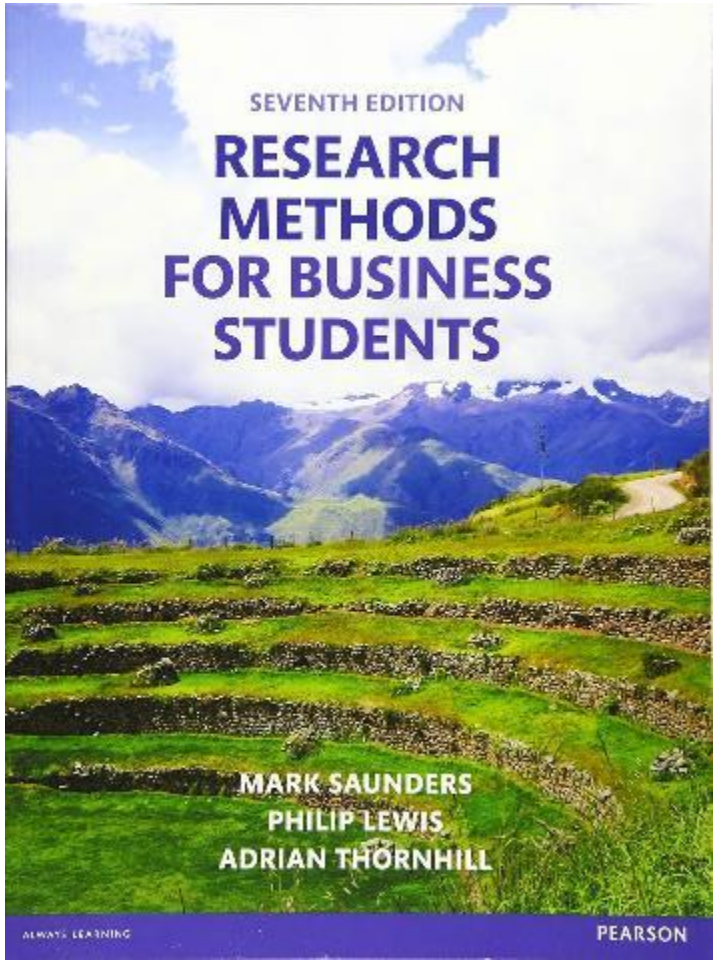
Before you decide on a research method, **consider your research**:

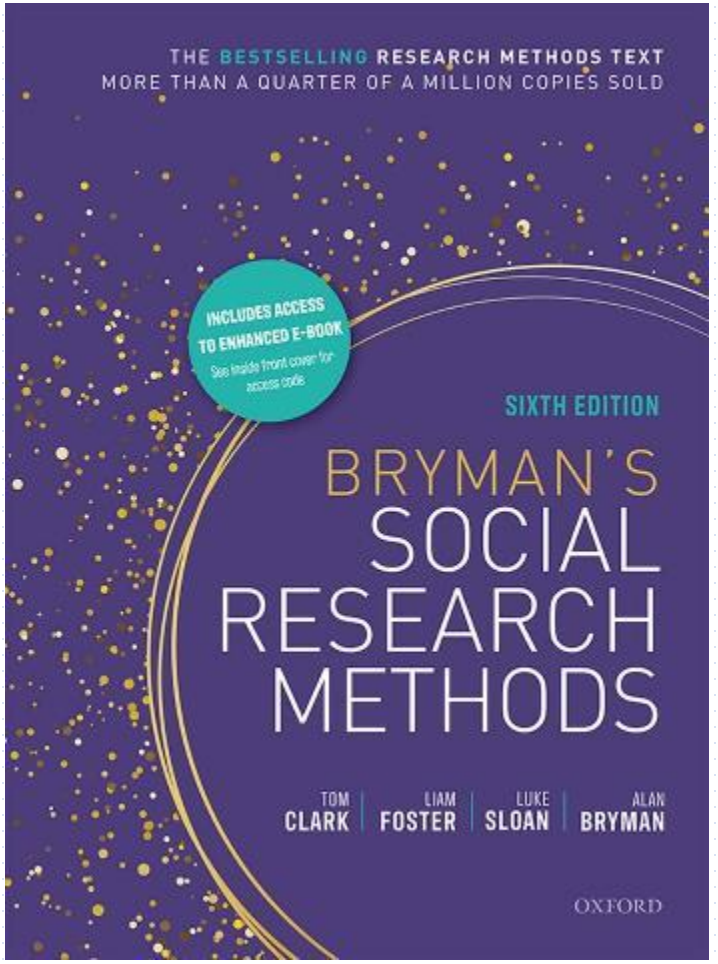
- What are your topic and research aims and objectives?
- What it is you're trying to achieve?
- What is are research question or hypothesis?
  - Depending on your questions and the results you're attempting to gain, your methods may vary greatly.

Also consider **what methods others have used**, and be critical of them!

- Is this a good method?
- What makes it a good method?
- Why have they chosen to use this method for their research?
- Are there limitations?
- Were any factors not taken into account?
- Any biases?
- Why would this work well /will not work for your research?

Get a research methods book!





Methodology chapter structure

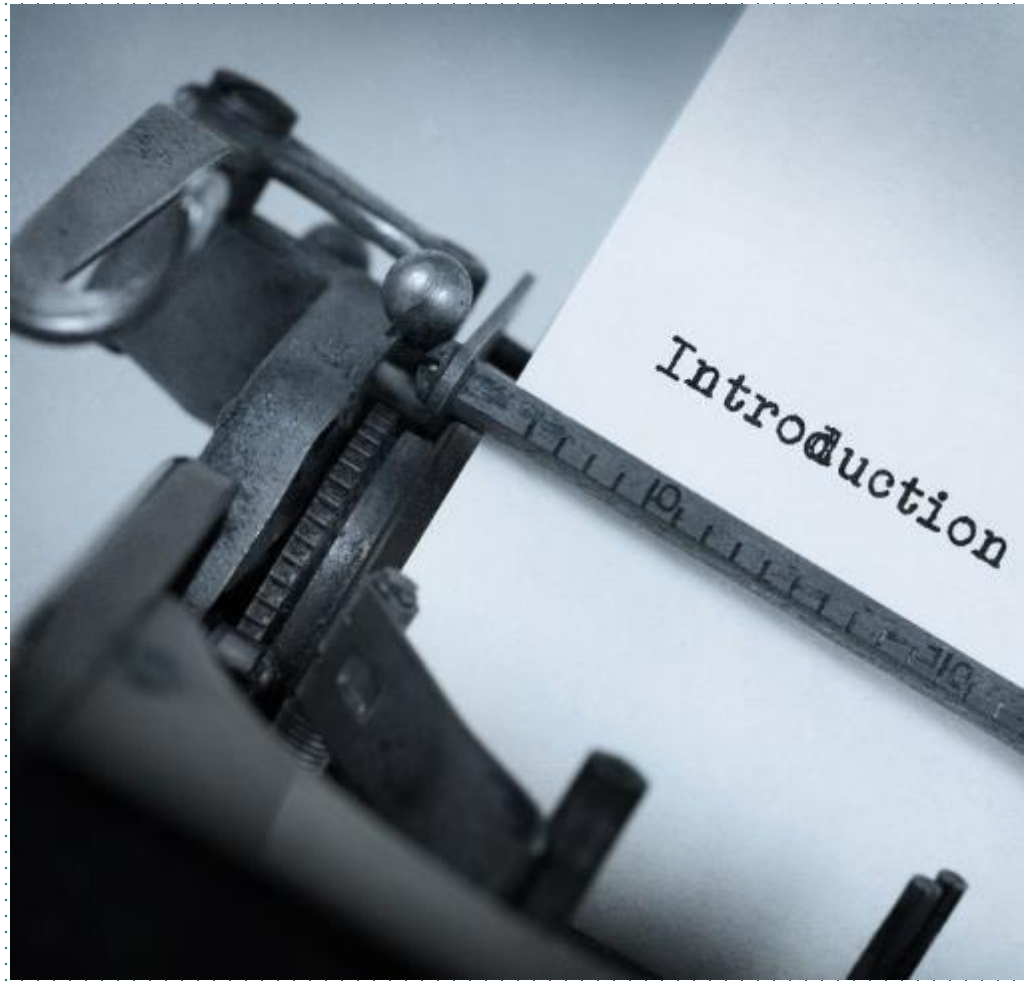
Possible structure of a methodology chapter:

1. Introduction, with research question or hypothesis
2. Research philosophy
3. Primary or secondary sources?
4. Quantitative or/and qualitative method(s)?
5. Procedural method
6. Ethics
7. Justification
8. Limitations and delimitations
9. Conclusion

Note: Support your discussion with reference to academic research/sources

Introducing your methodology

- An introductory paragraph that describes both the design of the study and the organization of the chapter.
- This prepares the reader for what is to follow and provides a framework within which to incorporate the materials.
- This paragraph says to the reader, “This is the Method chapter, this is how it is organized, and this is the type of design I used.”
- Afterwards, clearly state the research questions and/or hypotheses to be investigated before going into the main section of your methodology.



Theories for business research

Research philosophy = “system of beliefs and assumptions about the development of knowledge” (Saunders, Lewis and Thornhill, 2015, p.130).

When undertaking research you are developing knowledge!

During research you will make a series of assumptions as to:

- Realities you encounter in your research (ontological assumptions)
- Human knowledge (epistemological assumptions)
- Extent and ways your own values influence your research process (axiological assumptions)

Ontology (nature of reality or being)	**Epistemology** (what constitutes acceptable knowledge)	**Axiology** (role of values)	**Typical methods**
Positivism			
Real, external, independent One true reality (universalism) Granular (things) Ordered	Scientific method Observable and measurable facts Law-like generalisations Numbers Causal explanation and prediction as contribution	Value-free research Researcher is detached, neutral and independent of what is researched Researcher maintains objective stance	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
Critical realism			
Stratified/layered (the empirical, the actual and the real) External independent Intransient Objective structures Causal mechanisms	Epistemological relativism Knowledge historically situated and transient Facts are social constructions Historical causal explanation as contribution	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing Researcher tries to minimise bias and errors Researcher is as objective as possible	Retroductive, in-depth historical situated analysis of pre-existing structures and emerging agency. Range of methods and data types to fit subject matter
Interpretivism			
Complex, rich Socially constructed through culture and language Multiple meanings, interpretations, realities Flux of processes, experiences, practices	Theories and concepts too simplistic Focus on narratives, stories, perceptions and interpretations New understandings and worldviews as contribution	Value-bound research Researchers are part of what is researched, subjective Researcher interpretation key to contribution Researcher reflexive	Typically inductive Small samples, in-depth investigations, qualitative method of analysis, but a range of data can be interpreted

Postmodernism			
Nominal Complex, rich Socially constructed through power relations Some meanings, interpretations, realities are dominated and silenced by others Flux of processes, experience	What counts as ‘truth’ and ‘knowledge’ is decided by dominant ideologies Focus on absences, silences and oppressed/repressed meanings, interpretations and voices Exposure of power relations and challenge of dominant views as contribution	Value-constituted research Researcher and research embedded in power relations Some researcher narratives are repressed and silenced at the expense of others Researcher radically reflexive	Typically deconstructive – reading texts and realities against themselves In-depth investigations of anomalies, silences and absences Range of data types, typically qualitative methods of analysis
Pragmatism			
Complex, rich, external ‘Reality’ is the practical consequence of ideas Flux of processes and practices	Practical meaning of knowledge in specific contexts ‘True’ theories and knowledge are those that enable successful action Focus on problems, practices and relevance Problem solving and informed future practice as contribution	Value-driven research Research initiated and sustained by researcher’s doubts and beliefs Researcher reflexive	Following research problem and research question Range of methods: mixed, multiple, qualitative, quantitative, action research Emphasis on practical solutions and outcomes

Primary and secondary research

Primary and secondary research in business

Primary research

- Gathering data directly from your target users, customers, competitors, or experts.
- Use to gain **insights** into the needs, preferences, behaviours, and opinions of your potential or existing users/customers.
- Examples of primary research methods: **surveys**, **interviews**, **focus groups**, **UX research techniques,** observations, and experiments.

Secondary research

- Gather data already collected and published by other sources (including **databases, e.g. Mintel, Passport, Statista, Fame, Factiva)**
- Use to gain **background** information, industry trends, market size, and benchmarking data.
- Examples of secondary research methods: literature reviews, **reports**, articles, **databases**, and **websites**.

Primary data	Secondary data
Data collected directly	Data collected from previously done research, existing research is summarised and collated to enhance the overall effectiveness of the research.
Examples: **Interviews** (face-to-face or telephonic), **Surveys (**Online face-to-face) **Focus groups** and Observations	Examples: data available via the internet, non-government and government agencies, public libraries, educational institutions, commercial/business **databases**
Advantages: • Data collected is firsthand and accurate. • Data collected can be controlled. No dilution of data. • Research method can be customized to suit personal requirements and needs of the research.	Advantages: • Information is readily available • Less expensive and less time-consuming • Quicker to conduct
Disadvantages: • Can be quite extensive to conduct, requiring a lot of time and resources • Sometimes, one primary research method is not enough; therefore, a mixed method is required, which can be even more time-consuming.	Disadvantages: • It is necessary to check the credibility of the data • May not be as up to date • Success of your research depends on the quality of research previously conducted by others.

Quantitative and/or qualitative research?

Quantitative research

- Good if your research is about "*what*" or *to what extent*" your target audience/users think or do something (e.g. quantifying customer needs) or or about testing **hypotheses**, etc.
- Appropriate where you want to make systematic, standardised comparisons – e.g. comparing alternatives (vegetarian, vegan, meat eaters?)
- Use highly structured methods to make objective measurements of the frequency, magnitude, and relationship of your research variables (e.g. vegans who also drink alcohol?)
- Quantitative methods include
  - Online/in-person **polls**, **questionnaires**, and **surveys**
  - Using computational techniques to analyse pre-existing statistical data (e.g. in **databases)**
- Analysing quantitative data
  - Statistical, mathematical, or numerical analysis of patterns in data
  - Larger sample sizes can make conclusions generalizable
  - Statistical methods mean analysis is often considered reliable

Quantitative business research methods

1. Survey research

Surveys are a great way to collect information from a targeted group, no matter how big or small. They can be done in the format of an online survey, phone survey or questionnaire. Surveys are usually close-ended or multiple-choice questions that are easy to group and analyze. The business doing the research can collect valuable information directly from its customers.

2. Correlational research

Correlational research focuses on the discovery of whether two different entities influence each other in any way. The main focus of this research method is not to make decisions. But rather, they can use the findings to explore further using other research methods. Use statistical analysis.

3. Causal-comparative research

Causal-comparative research is similar to correlational research in that both of them compare two different elements and how they affect each other. But the main difference is that fact the focus of this research method is to draw conclusions on the cause-and-effect relationship of said entities, possibly supporting or not a hypothesis.

4. Experimental research

Experimental research has a broad spectrum when it comes to what is taken as ‘experimental’. Basically, it is when businesses want to test a specific theory about the quality of a product or service. There are many methods that can be used, and it is decided by the researcher according to the theory/hypothesis that will be tested.

https://www.indeed.com/career-advice/career-development/what-is-business-research

https://www.scribbr.co.uk/research-methods/correlation-and-causation/

Survey research

Surveys are a great way to collect information from a targeted group, no matter how big or small, for example for a business or organisation to collect valuable information directly from its customers/users.

Survey format

- in-person
- phone
- online (survey or questionnaire).

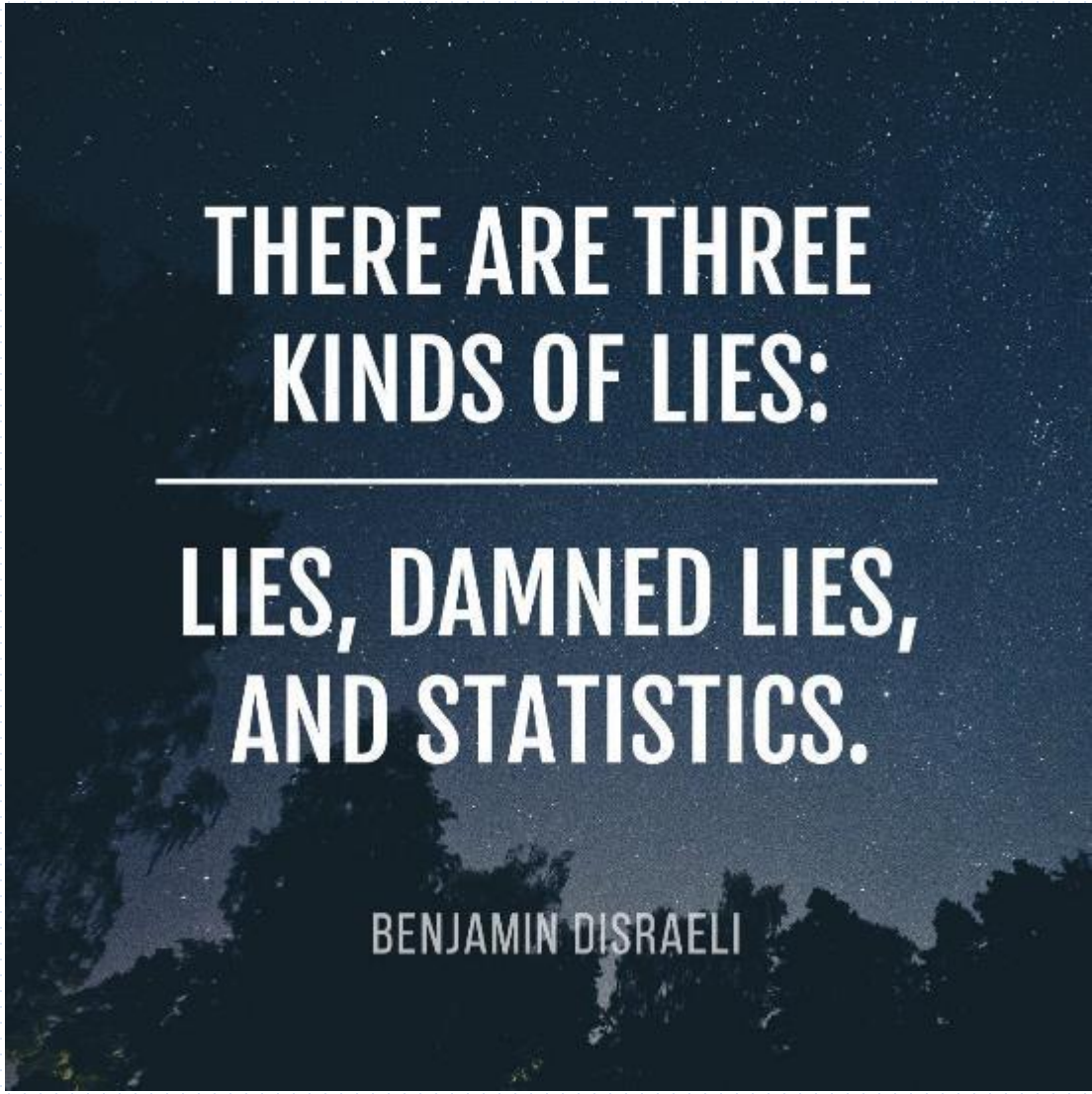
Survey Questions usually need to be carefully created so it is easy to group and analyze the answers. E.g.:

- close-ended questions (e.g. Are you satisfied with our services?)
- Likert (e.g. →)
- multiple-choice questions (e.g. How many hours do you use your mobile in a day? A. 0-2 hours, B. 2-4 hours, C. 4-6 hours, D. 6+ hours)

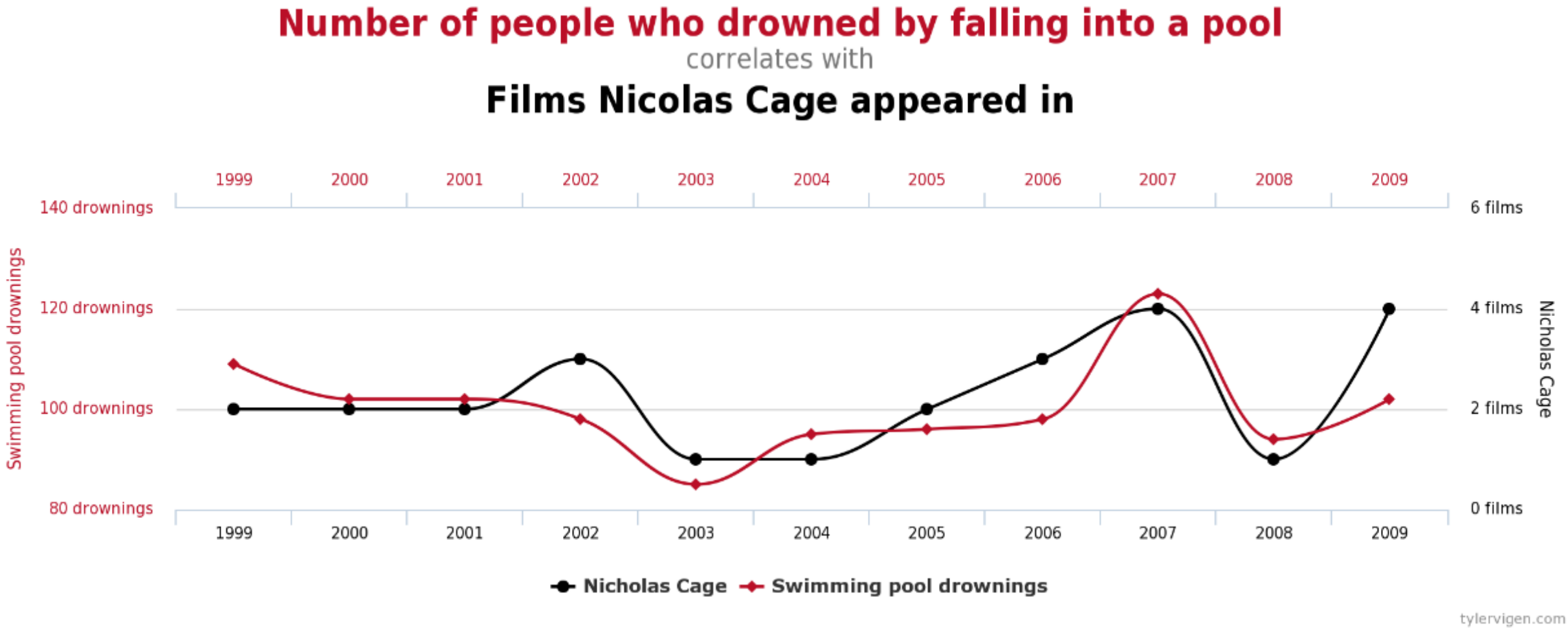
Likert scale example

Limitations of quantitative research

- Can answer questions in the form of "*what/to what extent…*"
- Does not always answer questions in the form "*why* or *how* – where you may need the full complexity of human experience or perceptions
- May give a false impression of homogeneity in a sample
- Do not confuse correlation (two variables moving together) with causation (one variable causes the other variable to move)



Correlation does not prove causation



Qualitative research

Qualitative research is good when your Research Question is about ***why* or *how*** things happen by giving you a detailed, in depth **understanding** of your target audience/users'

- Meanings
- Feelings/Motivations
- Experiences

Data from qualitative research **can help you answer** proper context/more holistically

- Generate new ideas
- Understand customer problems
- Discover hidden patterns/develop hypotheses

Qualitative research methods used in business

1. **Interviews**

Interviews are one-on-one questions asked to a smaller participant group about a specific subject. They consist of open-ended questions and can be in a semi-structured or unstructured format, allowing for probing and questioning of respondents based on their responses.

2. **Focus groups**

A focus group is a pre-determined group of individuals who are chosen to participate in a study to answer specific questions. The researchers present them with a topic and encourage discussions with open-ended questions. Then, the findings are generalized to make decisions.

3. **Ethnographic research**

Ethnographic seeks to understand the culture and people of the target audience by using observation. This method is done by observing the people in their natural environment and seeing how they interact with one another and their surroundings.

4. **Case study**

Businesses generally use a case study method to showcase to potential consumers how their product or service helped a certain individual or a group. It is a good way to attract new customers. This method helps highlight the company's skill sets and assets.

5. **Website visitor research**

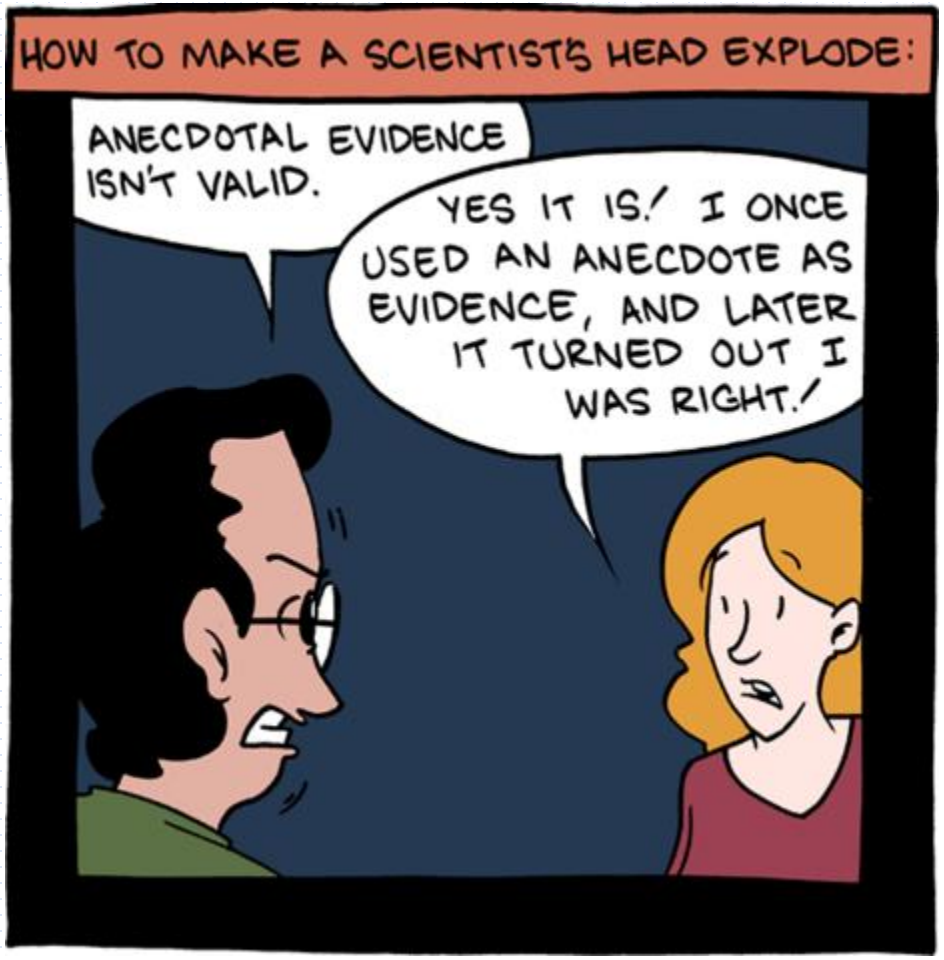
Aims to collect feedback from individuals who use the company website and ask them about their opinions. A business can use this method by presenting a customer with a quick survey after their purchase on the website.

https://www.indeed.com/career-advice/career-development/what-is-business-research

Limitations of qualitative research

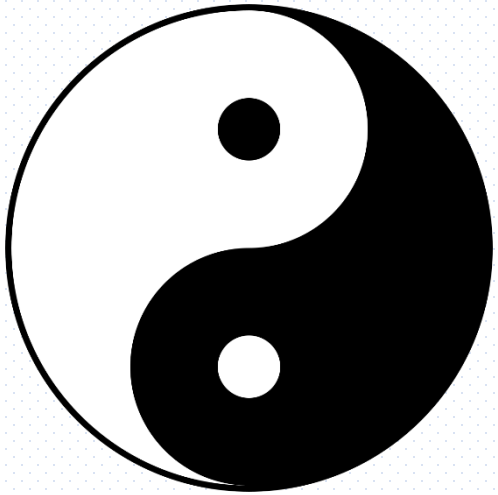
Important to note that qualitative data is:

- Not always generalizable due to small sample sizes and the subjective nature of the research
- Accusations of unreliability are common (different results may be achieved on a different day/with different people)
- So, your conclusions may need to be carefully hedged (e.g. “this limited, non-statistical sample does at least suggest…. XYZ”)



Mixed methods

- Mixed-method approaches have gained popularity in recent years
- Rationale: strengths and limitations of both qualitative and quantitative methods.
- The phases of data collection can be either sequential or concurrent:
  - Sequential – first phase of data collection can help to inform the second phase, or the second phase can be used to aid in the interpretation of data collected in the first phase.
  - Concurrent – undertaking both phases at the same time, which reduces the amount of time required to collect data and can therefore be more efficient.

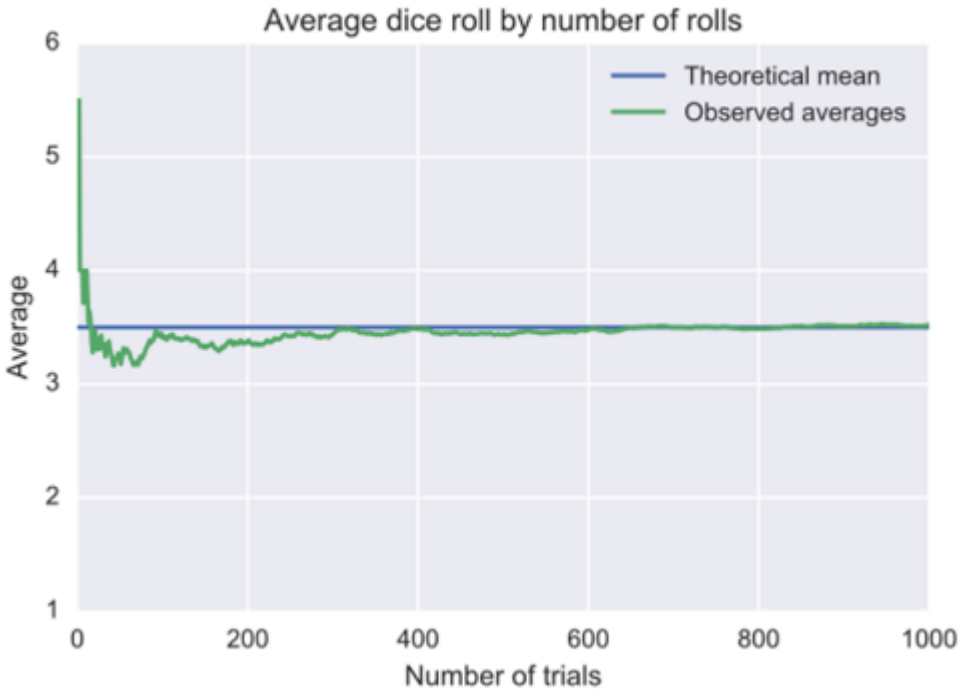


Mixed Methods Video by Doug Specht

https://youtu.be/fxtQmDJ1PsY

How much data do I need? Sampling: Size of sample

- **Law of large numbers**: the larger the number of individuals that are randomly drawn from a population, the more representative the resulting group will be of the entire population.
- **(Fallacious) Law of small numbers**: "the law of large numbers applies to small numbers as well!" → it's wrong!! (Kahneman, 2012)
- Pay attention to sample size!
- Sample size should depend on various factors, including the size and variability of the population and your research design.
- See also https://www.ai-therapy.com/psychology-statistics/sample-size-calculator , https://www.surveymonkey.com/mp/sample-size-calculator/



An illustration of the law of large numbers using a particular run of rolls of a single die. As the number of rolls in this run increases, the average of the values of all the results approaches 3.5. Although each run would show a distinctive shape over a small number of throws (at the left), over a large number of rolls (to the right) the shapes would be extremely similar (https://en.wikipedia.org/wiki/Law_of_large_numbers)

How much data do I need? Sampling: Quality of sample

Sample size is important, so is the quality and variety of the sample

Probability sampling

- Often used to test a hypothesis about a broad population
- Involves **random selection**, allowing you to make strong statistical inferences about the whole group.

Non-probability sampling

- Often used in **qualitative** research when the research question is about **understanding** a small or under-researched population.
- Individuals selected based on **non-random** criteria (e.g. **convenience**) allowing you to easily collect data. But If you use a non-probability sample, you should still aim to make it **as representative as possible** of the general population.
- Easier and cheaper to access, but it has a higher risk of sampling **bias** (not every individual has an equal chance of being included).
- This means **analysing data** is more complicated – the data from a non-probability sample is a weaker basis for making inferences about the population than with probability samples. Your conclusions may be more limited.

https://www.scribbr.co.uk/research-methods/sampling/

Procedural methods

Procedural methods

Provide an accurate, detailed account of the methods and procedures that were used in the study or the experiment.

Specifics about participants, materials, design and methods must be included.

Allows others to verify the data. Research needs to be verifiable: others could review the results by replicating the experiment themselves and testing the validity.

If the research involves **human subjects**, then include a detailed description of who and how many participated along with how the participants were selected.

Describe all **materials** used for the study, including equipment, written materials and testing instruments.

Identify the **study's design and any variables or controls** employed.

Write out the steps in the order that they were completed.

- Indicate what participants were asked to do, how measurements were taken and any calculations made to raw data collected.
- Specify statistical techniques applied to the data to reach your conclusions.

Research ethics

Research ethics

- Consider carefully ethics from the start of your research, or what seems like a good idea may flounder and prove problematic once you attempt to undertake it

- "**Research ethics** are the standards of researcher behaviour that guide your conduct in relation to the rights of the subjects of your research and those who are affected by it" (Saunders, Lewis and Thornhill, 2023, p.)

- Ethics relates to many aspects of your research, including the conduct towards:
- The **participants** to your primary research → no harm! See next slide
- The **authors** you have used as secondary sources → referencing!
- The **readers** of your research → exercise integrity, honesty, accuracy
- The **researcher** → be safe!

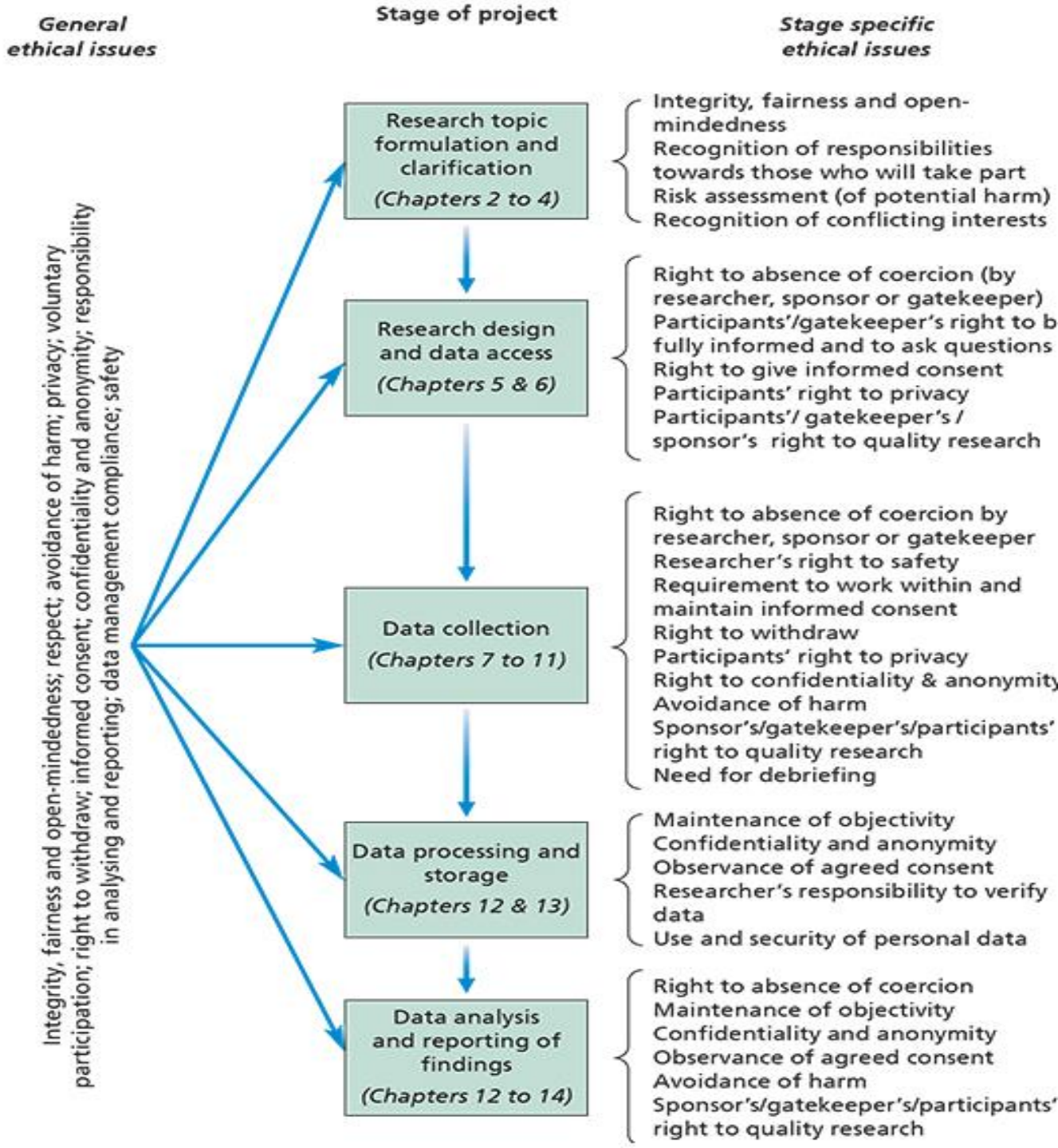
- The law regulates certain aspects of research (e.g. data protection).
- In addition, members of **universities** and **professional associations** abide by **codes of ethics** and **ethical guidelines** → You may need to submit your **proposal for ethical review**.

More on ethics towards participants

- Treat ethically the participants to your primary research (experiments, interviews etc).
- Explain that participation is **voluntary**, and they have the **right to withdraw** at any time.
- Participants need to provide **informed consent**.
- **Avoid harming** the participants, physically as well as mentally.
- Respect the participant's **privacy** and offer the **right to anonymity**.
- Manage their **personal data** confidentially, also according to legislation such as the Data Protection Act 2018.
- Be **truthful and accurate when using the information provided** by the participants.

Ethical issues at different stages of research

From Saunders, Lewis and Thornhill, 2023, p.



Justifications and limitations

Justifying your methodology

- Why you think these methods are the most appropriate for the research question(s).

- You could acknowledge alternative methods that were considered for the research and why these were disregarded.

- Include sources and references that support your choice of methods and procedures, compared to the literature review that provides a general outlook and framework for your study.

Limitations and delimitations

Delimitation = intentional choice of the researcher as to the boundary of the study - what it incudes and what it excludes. It can relate to population, location, sector, research objective, methods etc.

Limitation = constraints that are outside the control of the researcher and will affect the outcome of the research in terms of generalisability, validity and reliability.

$$A \nRightarrow B$$

Conclusion

Methodology conclusion

- Always good to end on a positive, addressing why, even with the limitations or criticisms, you have chosen this research method…
- You could recommend how to improve the research method in future, or what could be done in future to further this research…
- Add a summarising paragraph at the end that summarises the main factors of your research method and how these will then be employed to the analysis of the results…
- It offers a transition into the next chapter…

Dissertation as a marathon, not a sprint

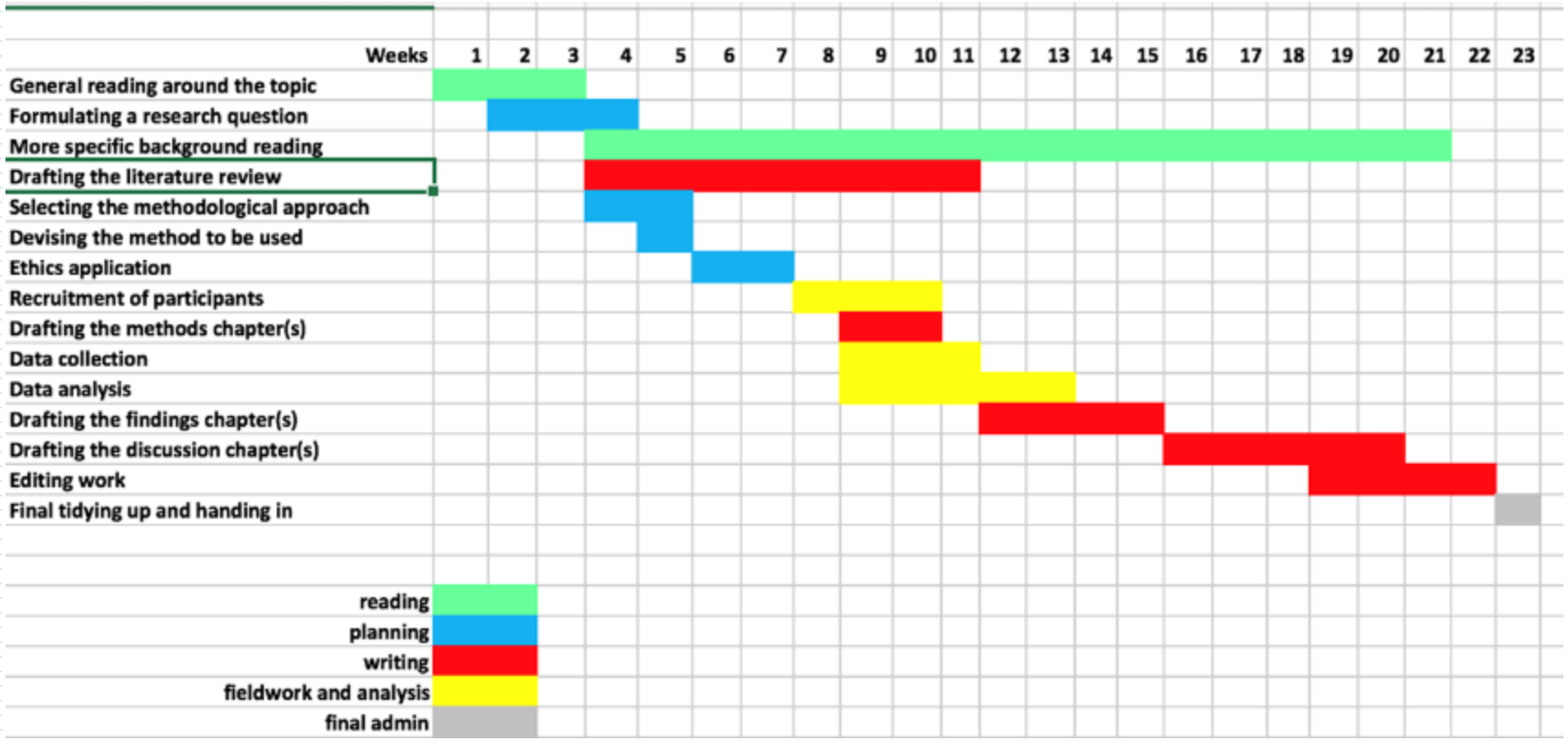
Your tips on the dissertation process

- When and how do you do your dissertation research and writing?
- Do you have a timetable?
- What are your tips on the dissertation process?

Time management tips

1. Set aside regular time to work on the dissertation
2. Break down the dissertation into smaller tasks to complete (e.g. literature search, read materials, data collection, write literature review…)
3. Start with the easiest part to write such as literature review or methodology
4. Do difficult tasks at times of day when you work best
5. If overwhelmed try to identify one task that needs doing rather than focusing on the larger project
6. Leave time to edit, re-edit and proofread your writing

Gantt chart


Weeks
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General reading around the topic
Formulating a research question
More specific background reading
Drafting the literature review
Selecting the methodological approach
Devising the method to be used
Ethics application
Recruitment of participants
Drafting the methods chapter(s)
Data collection
Data analysis
Drafting the findings chapter(s)
Drafting the discussion chapter(s)
Editing work
Final tidying up and handing in
reading
planning
writing
fieldwork and analysis
final admin

Separate generating from editing

Generating written text requires creativity

Editing text involves analytical and repetitive action

➢ **Try not to generate and edit at the same time**

Writers block sometimes happens because the writer is trying to generate and edit the same time. Wanting a sentence to be the perfect sentence can lead to frustration.

Goodson, P. (2013) Becoming an academic writer. London: Sage

THE END

FOR NOW

Reflection on the session

- What did you learn at this session?

- Do you have any questions?

Tips for the other sections of your dissertation:

- Introduction
- Results
- Discussion
- Conclusion