
ECDE7002: INTRODUCTION TO RESEARCH METHODS IN EDUCATION

Welcome to the module



TODAY'S FOCUS

- ✓ To provide an introduction to the module
- ✓ To introduce the assessment requirements
- ✓ To consider the place of educational research
- ✓ To reflect on own values and beliefs in relation to research



MODULE AIMS

- To apply key methodological concepts in educational research to formal, informal and nonformal contexts;
 - To critically evaluate different models of educational research;
 - To understand how to design coherent and ethical research projects to respond to relevant research questions within formal, informal and non-formal contexts.
-

MODULE LEARNING OUTCOMES

- Critically evaluate data collection techniques and different models of educational research in order to undertake their individual studies in formal, informal and non-formal contexts;
 - Demonstrate and articulate a critical understanding of key methodological concepts in education research and apply this to formal, informal and non-formal contexts;
 - Critically reflect upon the ethical nature of undertaking research in practice in formal, informal and non-formal contexts;
 - Critically evaluate the appropriateness of applying quantitative and qualitative data collection tools to formal, informal and non-formal educational contexts.
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SUPPORTING RESOURCES



- Moodle page
- Module handbook
- Teams channel
- Tutorials with Caroline *or* Susan (on request)



ASSIGNMENT INFORMATION

SUBMISSION: 30.04.26
RETURN: 01.06.26

ASSIGNMENT COMPONENT 1 – 45%

Written Assignment: 3500-word *equivalent*

- Critically reflect on research paradigms that would enable you to conduct a mixed methods enquiry that would meet identified research questions. With reference to relevant literature, identify an area of research you may want to explore. Create between 1 and 3 research questions that would be answerable through a mixed methods approach to data collection. Critically appraise qualitative and quantitative research paradigms which link to your research questions, justifying why they are appropriate.
-

ASSIGNMENT COMPONENT 2 – 45%

Written Assignment: 3500 words

- Outline your preferred approach (qualitative/quantitative/mixed methods) to this enquiry by focusing on ONE of your research questions. Plan an appropriate data collection process and associated analysis of the data, reflecting on its strengths and limitations. Critically reflect upon the ethical issues surrounding the research process.
-

ASSIGNMENT COMPONENT 3 – 10%

Written Assignment: 800-word equivalent

- Consider the ethical implications of your identified research question (800 words or equivalent).
 - Exemplar: Using the UWTSD Ethics form, outline the responses you would provide to address the research question in component 2.
 - You are required to use an adapted version of the university's PG2 form for this component, which has been shared via Moodle.
 - You will need to complete the following sections:
 - SECTION L: Types of Personal Data
 - SECTION M: Participant Information and Consent
 - SECTION Q: Risk Assessment
-

EDUCATIONAL RESEARCH



Why bother?



YOUR FIRST THOUGHTS...





WHAT IS RESEARCH?

Research is work that involves studying something and trying to discover facts about it.
Collins Dictionary

A detailed study of a subject, especially in order to discover (new) information or reach a (new) understanding
Cambridge Dictionary

The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.
Oxford Dictionaries

Investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws
Merriam-Webster Dictionary

Research is work that involves studying something and trying to **discover** facts about it.
Collins Dictionary

a **detailed study** of a subject, especially in order to **discover** (new) information or reach a (new) **understanding**
Cambridge Dictionary

the **systematic** investigation into and study of materials and sources in order to **establish** facts and reach new **conclusions**.
Oxford Dictionaries

investigation or experimentation aimed at the **discovery** and **interpretation** of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws
Merriam-Webster Dictionary



WHY DO WE RESEARCH?

- Improve own practice
 - Add to knowledge – subject / pedagogical
 - Fill ‘gaps’ in knowledge
 - Replicate knowledge
 - Add voices of individuals to knowledge
-

WHY DO WE RESEARCH?



“You do not have to begin with a ‘problem’. All you need is a general idea that something might be improved. Your general idea may stem from a promising new idea or the recognition that existing practice falls short of aspiration.”

Kemmis & McTaggart (1988)

Kemmis, S. and McTaggart, R. (eds) (1988) *The action research planner*. 3rd edition. Belmont, Victoria: Deakin University

EDUCATIONAL RESEARCH

ADAPTED FROM: FORDHAM, M (2016). REALISING AND EXTENDING STENHOUSE'S VISION OF TEACHER RESEARCH: THE CASE OF ENGLISH HISTORY TEACHERS. BRITISH EDUCATIONAL RESEARCH JOURNAL. 42 (1), PP 135-150

Stenhouse (1926-1982):

- Curriculum development and role of teacher as researcher = foundation of teacher professionalism
- Notion of 'restricted professional' and 'extended professional'

Contemporary view:

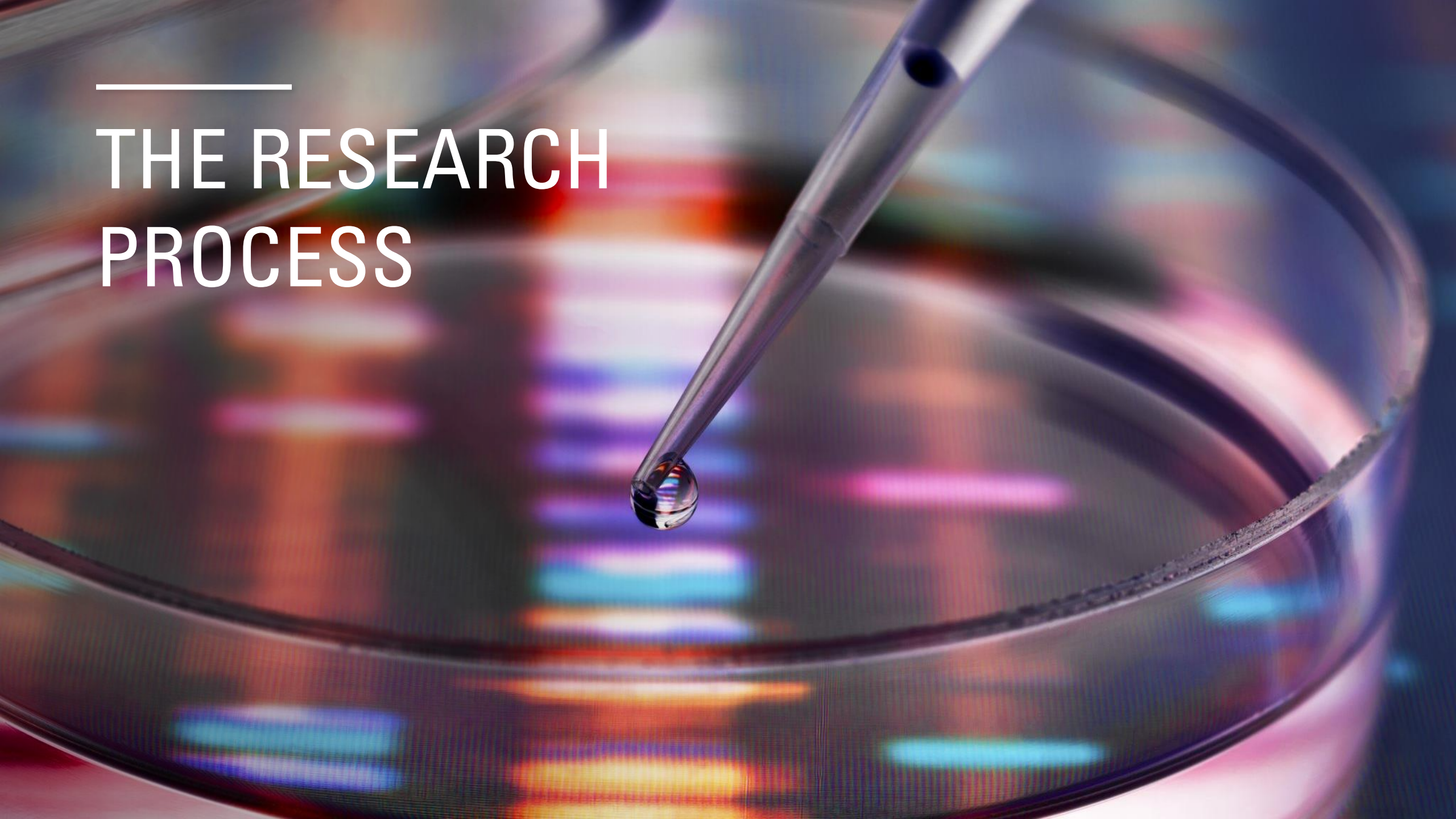
- Teachers as reflective practitioners
 - Teachers as contributors of public knowledge about effective teaching
-

QUESTION FOR REFLECTION



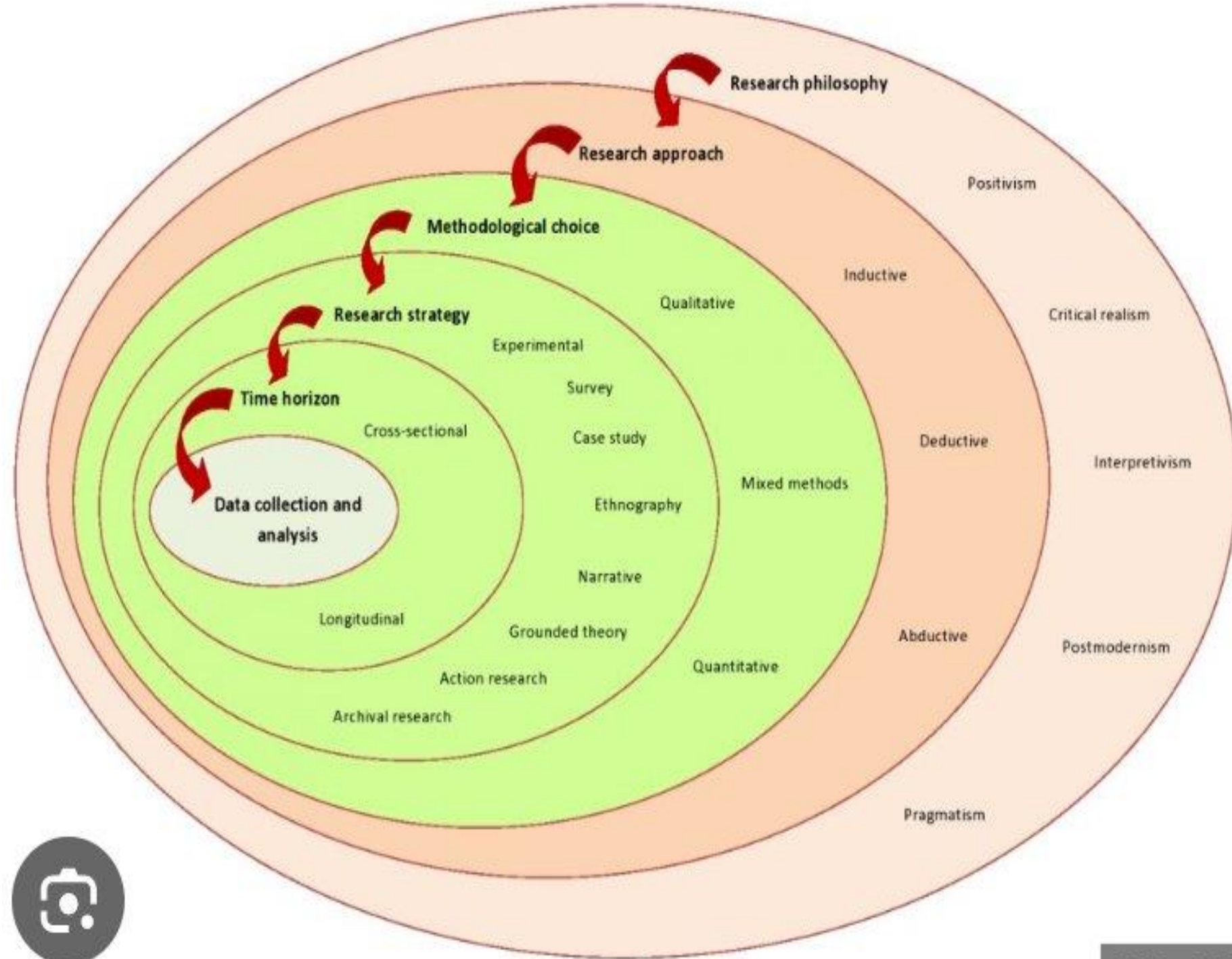
- What are the skills an effective researcher needs?

THE RESEARCH PROCESS



THE RESEARCH ONION (SAUNDERS ET. AL. 2007)

Start from the outside and peel each layer away until you reach the core.



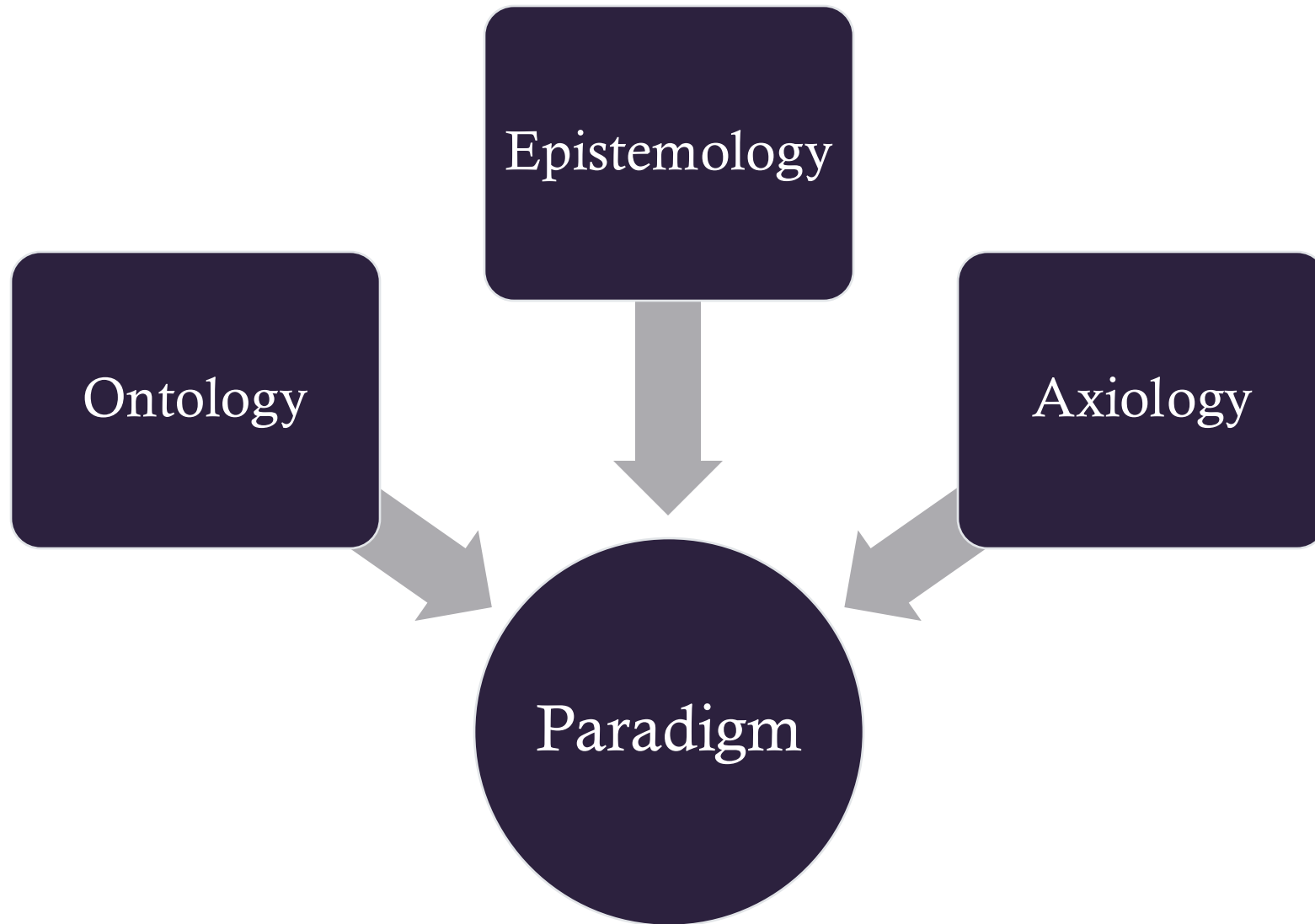
UNDERSTANDING RESEARCH PHILOSOPHY

- Research philosophy refers to the set of beliefs concerning the nature of the reality being investigated (Bryman, 2012).
- The choice of research philosophy is defined by the type of knowledge being investigated in the research project (May, 2011).
- Knowing the nature of reality is crucial to understanding how you make meaning of the data you gather.
- These assumptions help to orientate your thinking about the research problem, its significance, and how you might approach it so that you can contribute to its solution.

UNDERSTANDING RESEARCH PHILOSOPHY

- Within research, we ask the big questions
- Researchers take **ontological** and **epistemological** positions to explain the nature of the problem, how we know what we know about it, and what is important to know to understand it.





ONTOLOGY AND EPISTEMOLOGY

RESEARCH IS ABOUT ASKING BIG QUESTIONS.



Researchers take ontological and epistemological positions to explain the nature of the problem, how we know what we know about it, and what is important to know to understand it.

THINKING ABOUT THE 'OLOGIES'

Ontology...

Philosophical belief system about the nature of the social world (e.g.; whether it is patterned or predictable or constantly recreated by humans). Levey (2017: 12)

Realist ontology = objective reality... *'is external and independent of the observer and... there is one single, universal reality that can be experienced and analysed which is external and independent of humans'*

Relativist ontology = subjective reality... *'there is no single reality, instead reality is devised by human understanding and relative to the time, place and context'* Buckler and Moore (2021: 33)

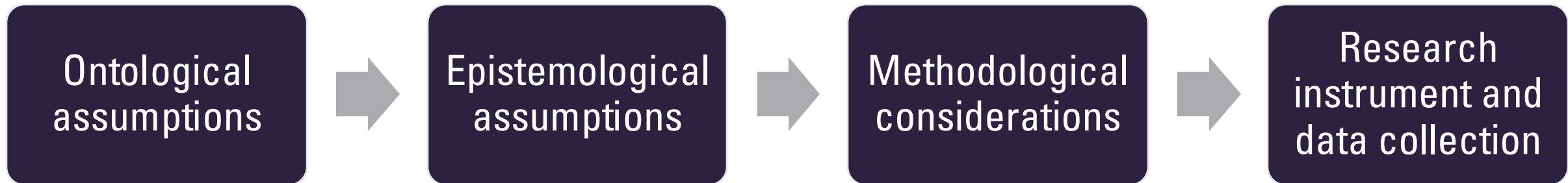
THINKING ABOUT THE 'OLOGIES'

Epistemology

‘How we come to have legitimate knowledge of the world; rules for knowing’ O’Leary (2021:6)

‘... concerns the very basis of knowledge – its nature and forms , how it can be acquired and how it can be communicated to other human beings. How one aligns themselves... profoundly affects how one will go about uncovering knowledge of social behaviour’ Cohen et al. (2018: 5)

ONTOLOGICAL AND EPISTEMOLOGICAL RELATIONSHIPS



BASIC BELIEFS ASSOCIATED WITH MAJOR PARADIGMS

Basic belief	Positivist	Interpretivist
Ontology Nature of reality	The positivist ontology believes that the world is external (Carlson et al., 1988) and that there is a single objective reality to any research, regardless of the researcher's belief or perspective	Multiple socially constructed realities; researchers' values are inherent in all phases of the research process. Truth is negotiated through dialogue.
Epistemology Nature of knowledge	Objectivity is paramount; the researcher interacts and observes in a dispassionate objective manner. Positivist thinkers adopt scientific method as a means of knowledge generation.	Interactive link between researcher and participants; we cannot separate ourselves from what we know, and how we understand the world is a central part of how we understand ourselves, others, and the world. Values are made explicit; create findings.
Methodology	Quantitative Interventionist Decontextualised	Qualitative; hermeneutical; dialectical; contextual factors are described

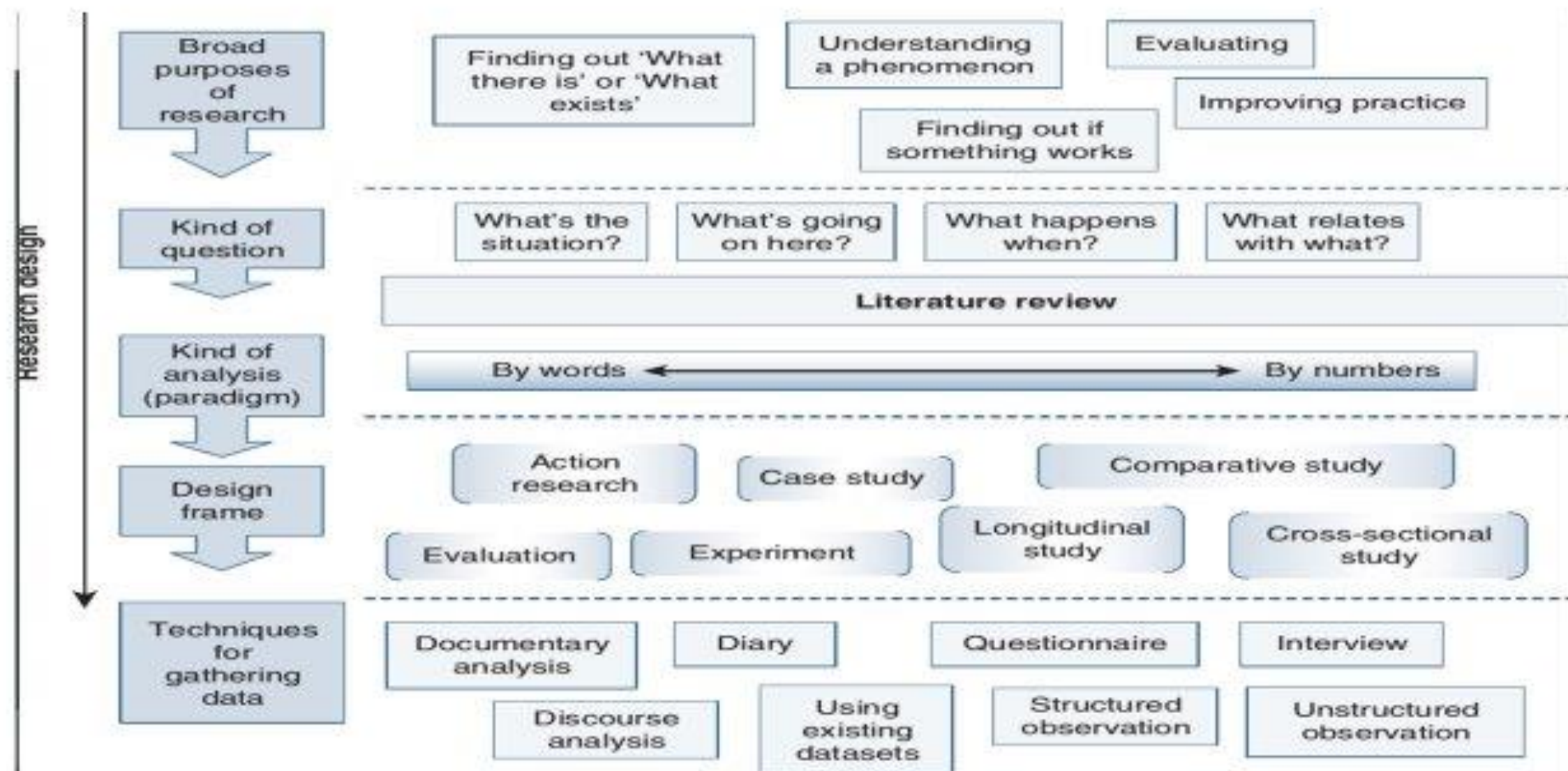
AXIOLOGY

- Axiology is the philosophical study of value.
- Axiological considerations help researchers decide what is valuable and ethical to research.
- It helps you to understand that people's opinions matter while carrying out research (Silverman, 2013).

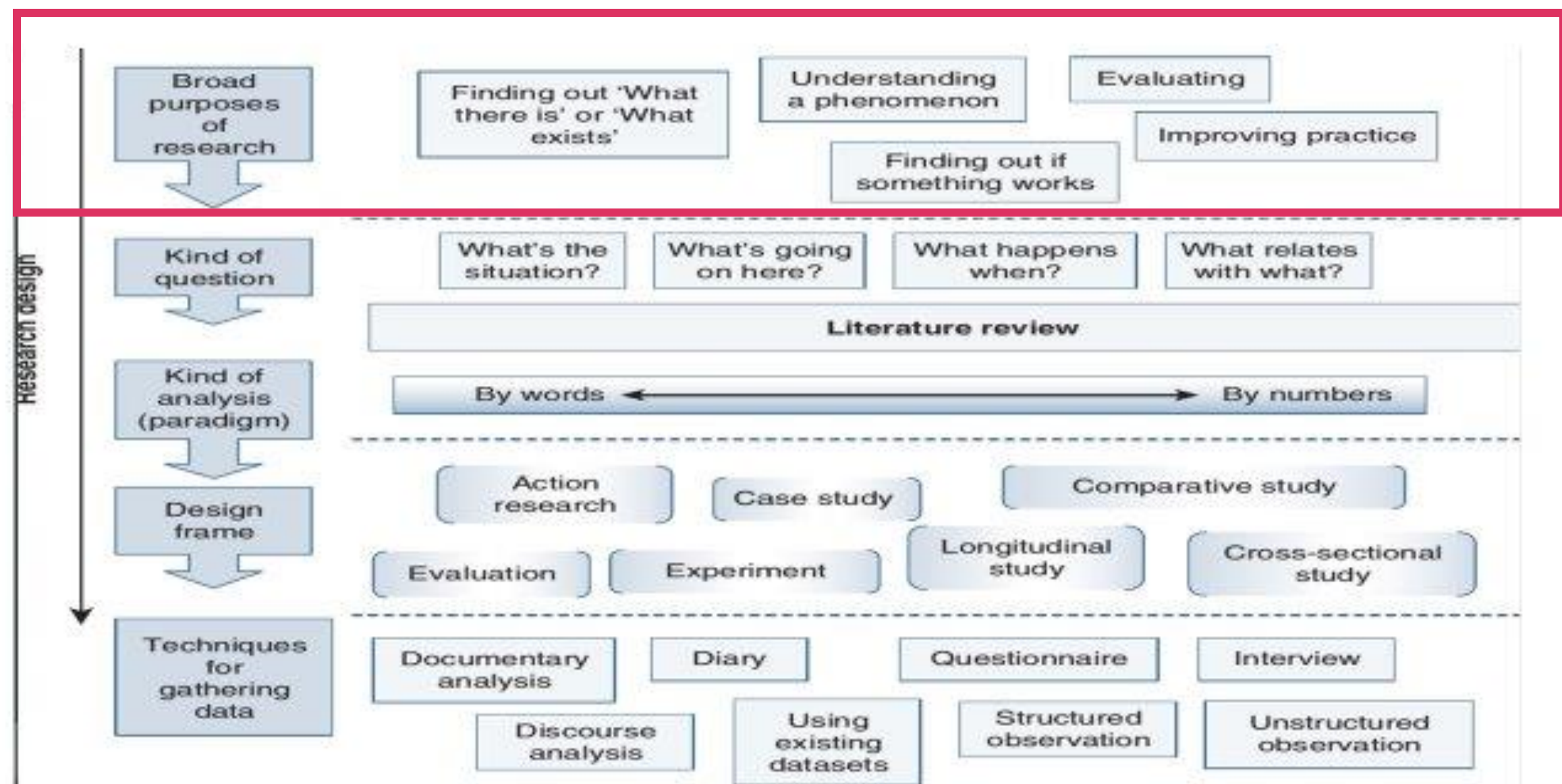
More information - Deane, 2018

[A guide for interdisciplinary researchers: Adding axiology alongside ontology and epistemology – Integration and Implementation Insights \(i2insights.org\)](#)

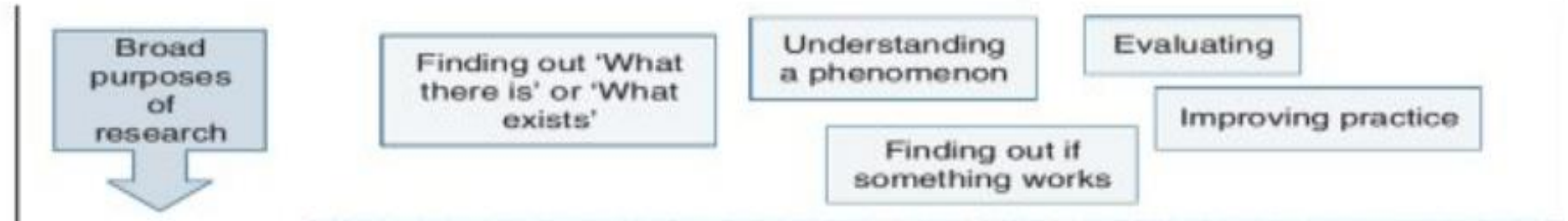
The process of research design:



The process of research design:



CONCEPTUALISATION



Step One: What is the topic?

- **The first step of any project is to determine what you want to study.**

Step Two: What is my problem? Why should anyone care about my problem?

- You must then establish the problem your project hopes to solve, including filling in a gap or extending the literature in a new and exciting direction.
-



STEP 1

TASK: CREATE A MINDMAP...

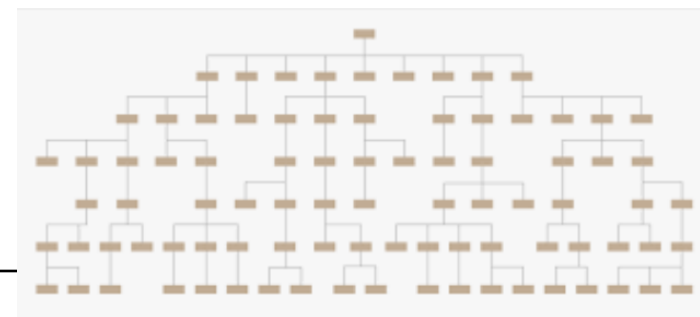
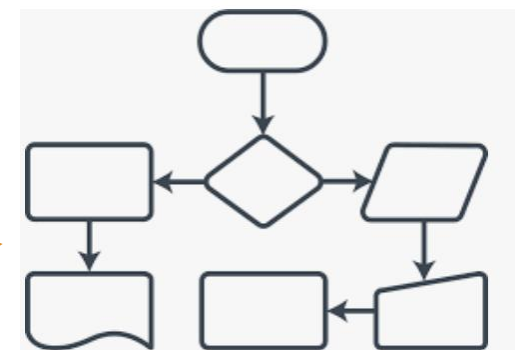
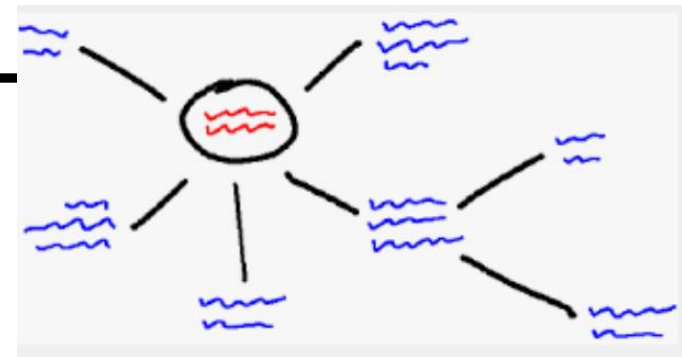
- A visual representation of key themes, concepts, ideas, organizations, people, units or theories.

This could be:

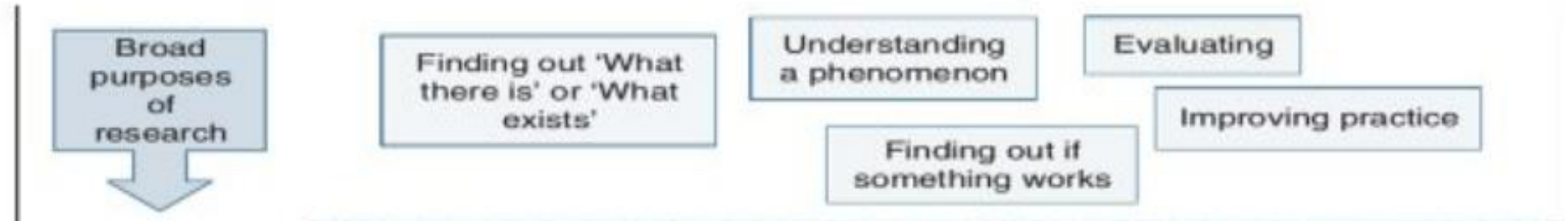
- shown as a spider diagram, built around one theme;
- shown as a flow chart;
- shown as 'tree' diagram (Miles and Huberman, 1994)

You could:

- use lines to show connections.
- use different shapes to symbolize different components (e.g., using squares for organizations; circles for people).



CONCEPTUALISATION



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-

STEP 2

WHAT IS MY RESEARCH PROBLEM?

- A research problem could be:
 - a statement about an area of concern;
 - a condition to be improved;
 - a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or in practice;
 - that points to the need for **meaningful** understanding and **deliberate** investigation.
-

STEP 2

WHAT IS MY RESEARCH PROBLEM?

- Additionally, you could explain your intention.
 - Are you hoping:
 - to contribute to the academic or professional literature?
 - to evaluate a policy or programme?
 - to contribute to social reform?
 - What does your intended audience already know or want to know? (Booth et al., 2008)
-

STEP 2

WHAT IS MY INTENTION?

Table 2.6 What is my intention?

Possible audience(s)	Possible research problem formation	Possible contributions
• Academics • Professionals	Are interested in building ... • Theoretical frameworks • Concepts • Empirical data • Evaluation	That contributes to ... • Scholarly or professional literature • Programme evaluation • Policy reform • Social reform • Providing new factual information • Solving a practical problem
• Professionals • Policy makers • Group under study • Community group	Are interested in building ... • Concepts • Empirical data • Evaluation	That contributes to ... • Policy reform • Social reform • Providing new factual information • Solving a practical problem
• General public • Popular media	Are interested in building ... • Concepts • Empirical data • Evaluation	That contributes to ... • Policy reform • Social reform • Providing new factual information • Solving practical problems • Popular discourse (e.g., entertainment)

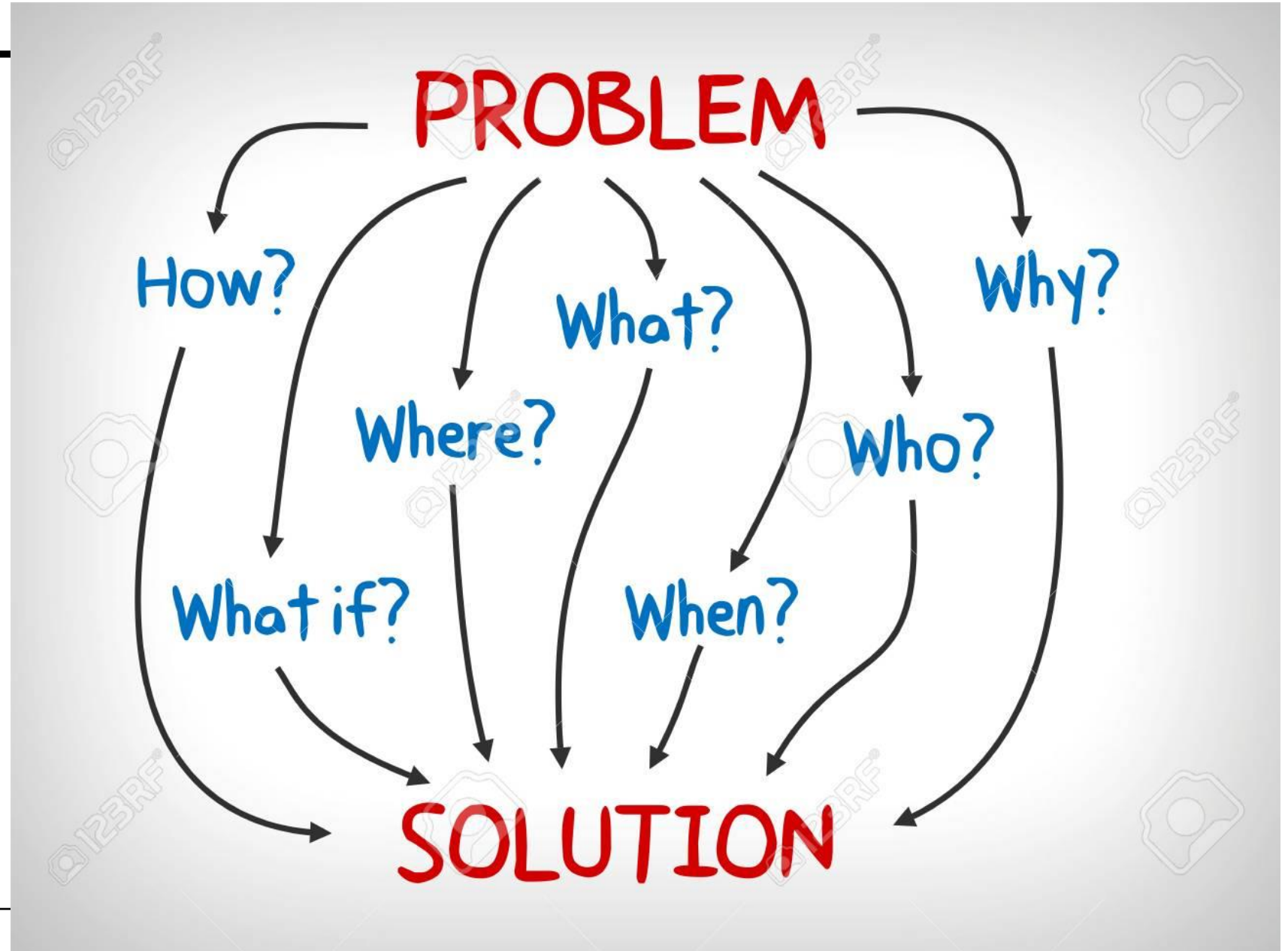
STEP 2

WHAT IS MY RESEARCH PROBLEM?

- Your purpose statement forces you to articulate:
- ‘why you want to do the study and what you intend to accomplish’ (Locke et al., 2000).
- If previous research sufficiently addresses the questions or issues you are interested in, why do we need another study?

Your goal is to find a gap that your research project can fill.

WHAT IS MY
RESEARCH
PROBLEM?





WRITE THE PROBLEM STATEMENT

- Who?
 - What?
 - How?
 - What is the overall goal?
-



EXAMPLE OF PROBLEM STATEMENT:

The purpose of this research is to [assess, understand, evaluate, improve, etc.] **the** [topic, effect, result] **for** [students, teachers, other] **at/in** [place].

WHAT TYPE OF RESEARCH WILL IT BE?

- **Exploratory** - Investigates an area or issue where little previous work has been carried out. In an organisational setting, it may be used to discover whether or not a problem exists.
 - Example: investigation of students' perceptions of IT services.
 - **Descriptive** - Aims to gather information on relationships, patterns and links between variables.
 - Example: research on the link between students' study skills and course drop-out rates.
 - **Explanatory** - Investigates why relationships, patterns and links occur.
 - Example: how study skills support can improve student retention.
-

WHAT TYPE OF RESEARCH WILL IT BE?

- **Evaluative** - Evaluates the impact of something; e.g. a new policy, event, law, treatment regime or system.
 - Example: an evaluation of the impact of the Olympic Games on host nations.
- **Predictive** - Develops a model to predict the likely course of events given particular variables or circumstances.
 - Example: to predict customers' buying behaviour in retail.

2. CONTEXTUALISATION



Placing the research within the context of similar research by others.

You will need to complete a detailed **literature search**.

This will then help you to decide on your research question(s)

REVIEWING THE LITERATURE



ECDE7002: ASSIGNMENT COMPONENT 2

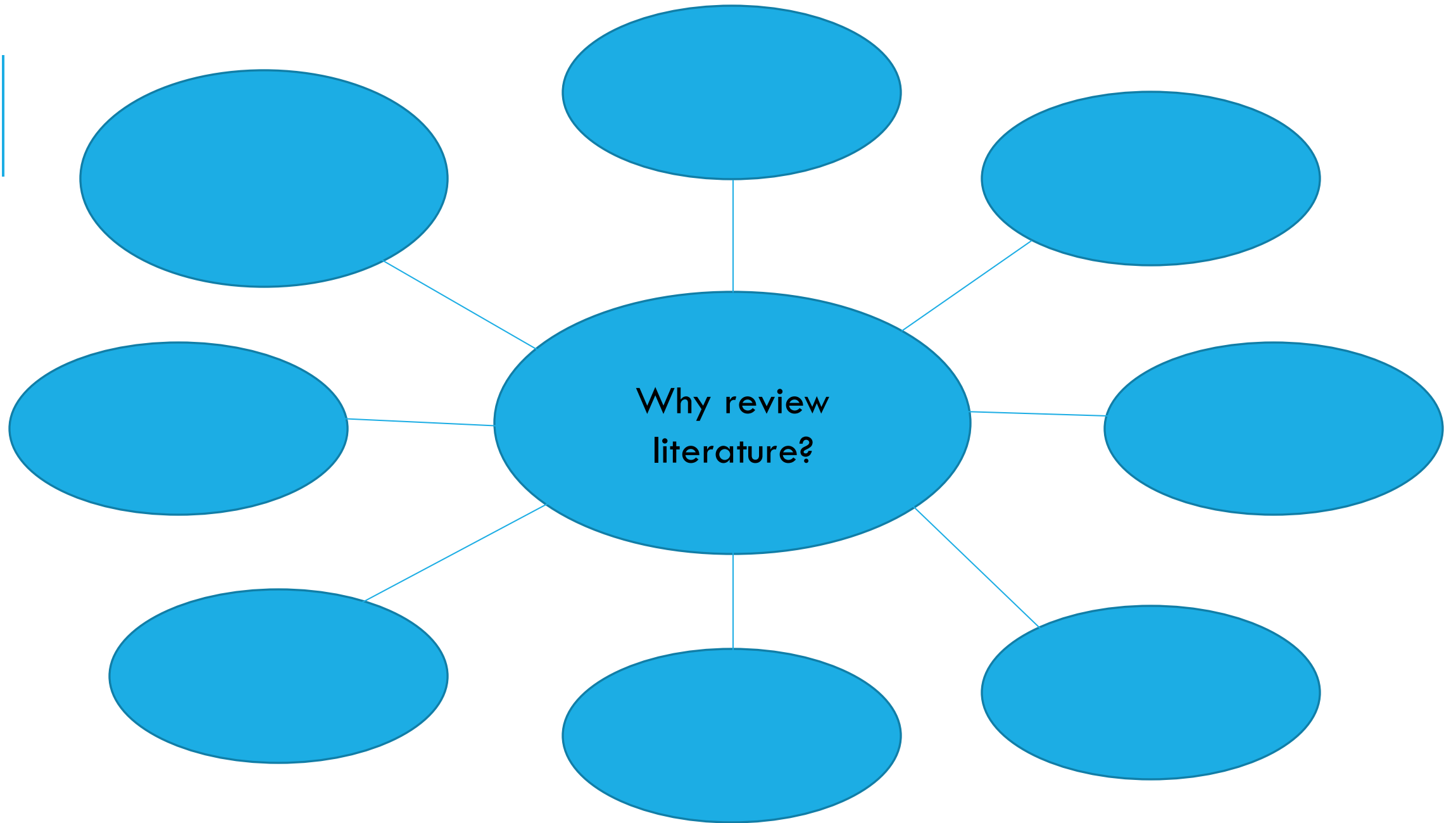
- **With reference to relevant literature, identify an area of research you may want to explore.**
 - Outline your preferred approach (qualitative/quantitative/mixed methods) to this enquiry by focusing on ONE of your research questions. Plan an appropriate data collection process and associated analysis of the data, reflecting on its strengths and limitations. Critically reflect upon the ethical issues surrounding the research process.
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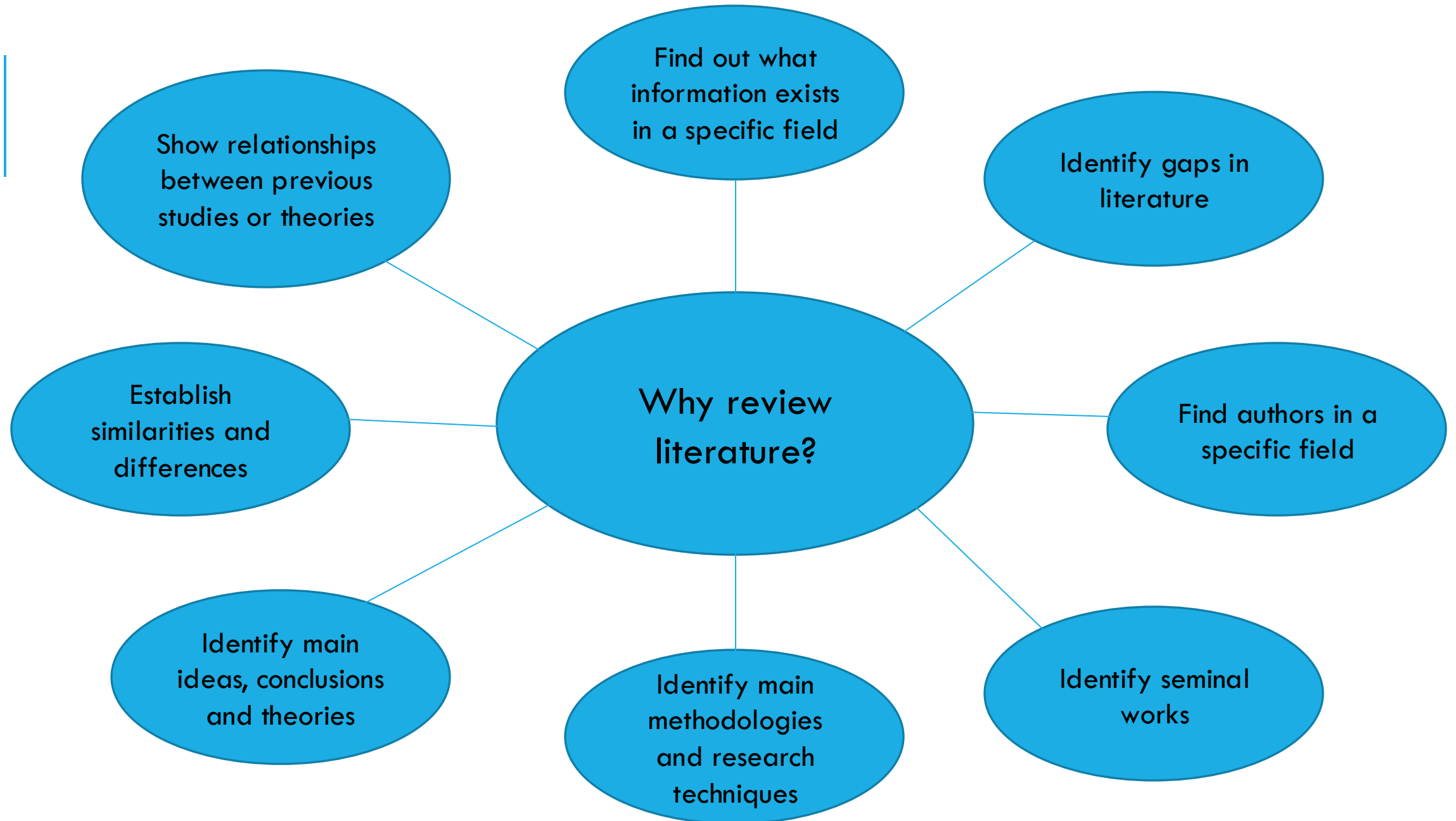
DISCUSSION

Why is academic literature important in research?

Why do we need to review literature that is related to our chosen study?







WRITING A LITERATURE REVIEW

The literature review gives you a chance to:

- Provide a comprehensive survey of the works published in a particular discipline or area of research over a specified period of time;
- Demonstrate your knowledge of scholarly debates around a topic;
- Evaluate the current state of research.

The content will look slightly different in each case, but the process of conducting a literature review follows the same steps.

STEP 1: SEARCH FOR RELEVANT LITERATURE

Before you begin searching for literature, you need a clearly defined **topic**.

You will have to choose a focus and develop a central question/statement to direct your search.

DISCUSSION

How do we know what sort of information we are looking for?

How can we judge whether information is relevant?

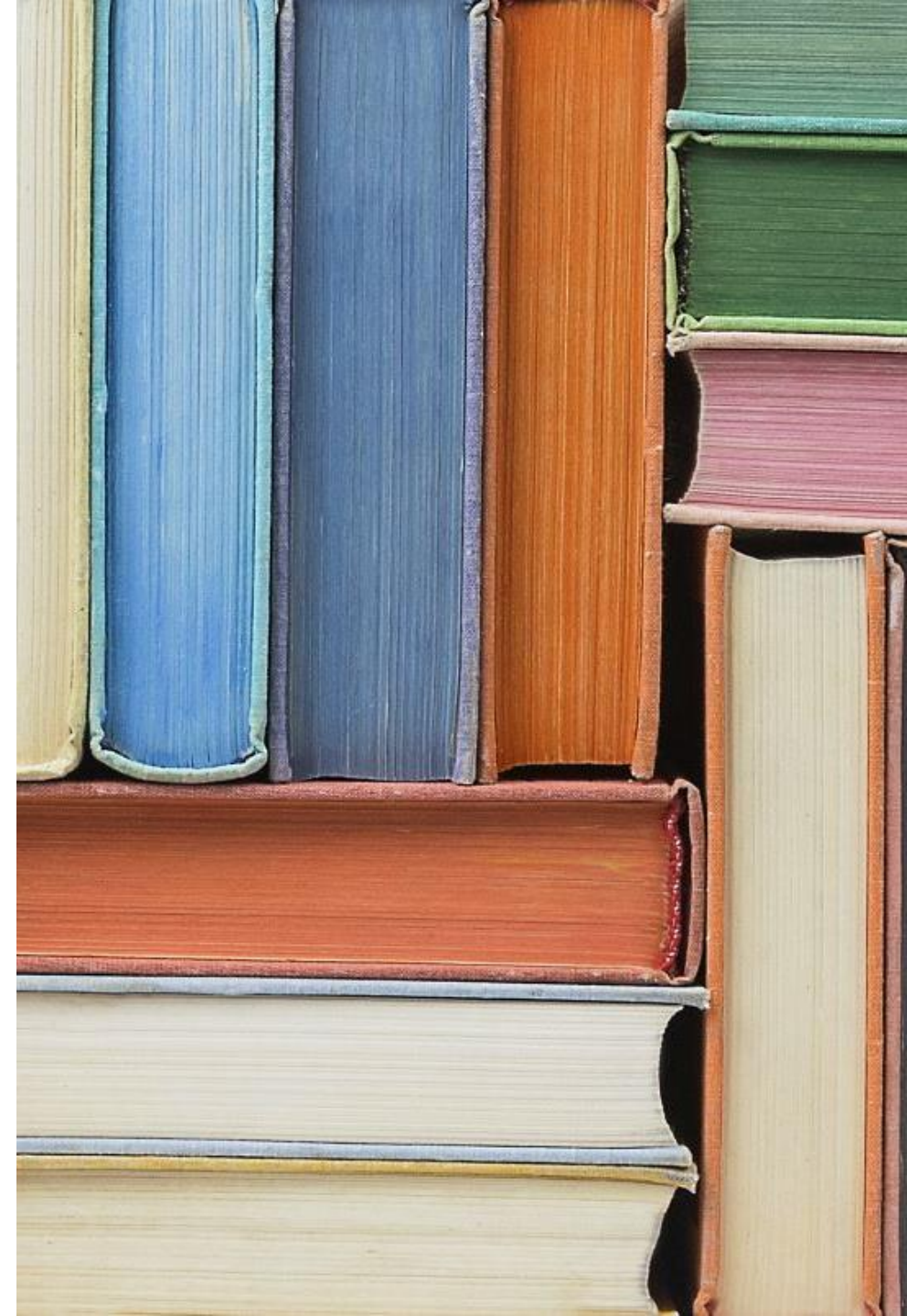
Are some sources of literature 'better' than other sources?



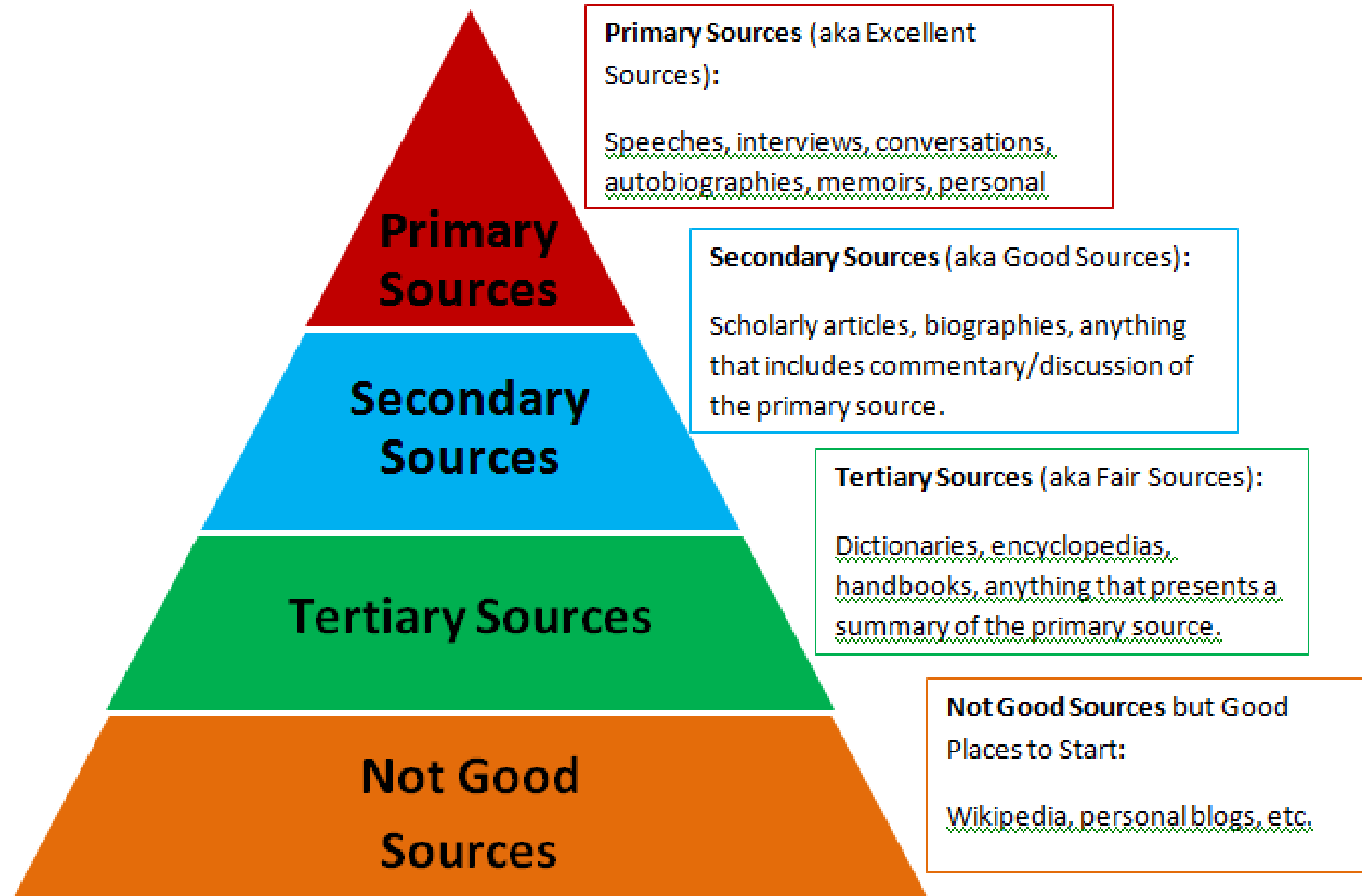
SOURCES OF LITERATURE

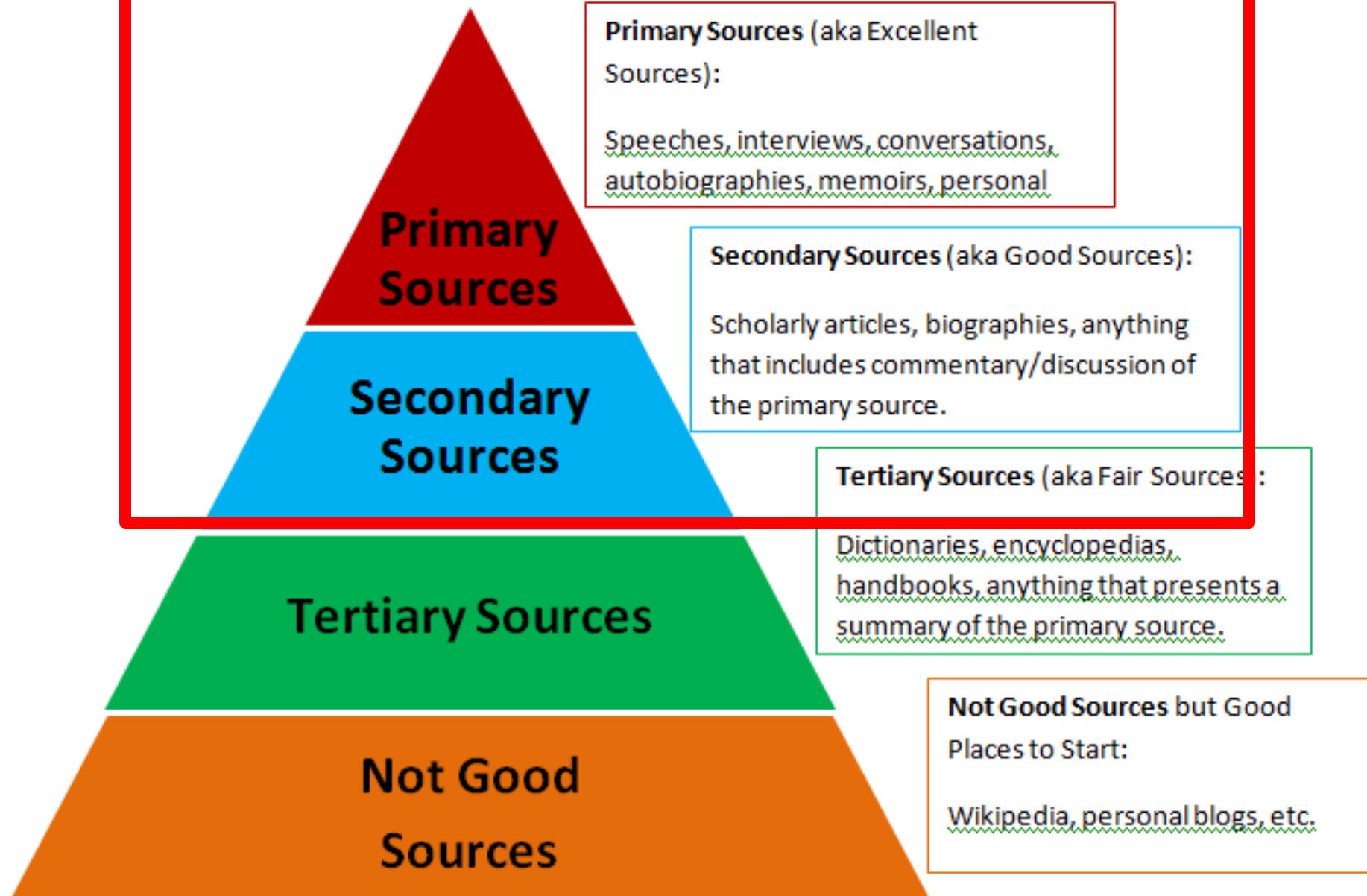
Sources of literature can be divided into three categories:

- Primary literature sources
- Secondary literature sources
- Tertiary literature sources



Primary Source	Secondary Source	Tertiary Source
● Original materials ● From the time period involved ● Events described as they happen without commentary ● Not filtered through interpretation or evaluation ● Usually the <u>first</u> appearance of information in physical or electronic format	● Accounts that were written after the fact and influenced by hindsight, or higher level of understanding about the situation ● Not evidence but rather a discussion of or commentary on evidence. ● Offer analysis or restate elements of primary sources. ● Attempt to explain, summarize, interpret, or reorganize information provided by primary sources.	● Attempt to digest and distill information from primary and secondary sources. ● Sources that index, organize or compile other sources. ● Often these sources are not credited to a single author.
Examples ● Audio recordings (radio or podcasts) ● Interviews ● Letters ● Newspapers that were written at the time of an event ● Photographs and videos ● Speeches ● Memos ● Diaries ● Autobiographies	Examples ● Commentaries or criticisms ● Magazine and newspaper articles that were written after an event ● Biographies ● Histories ● Textbooks ● Political analysis or commentary	Examples ● Dictionaries ● Wikipedia ● Encyclopedias ● Factbooks ● Handbooks ● Manuals





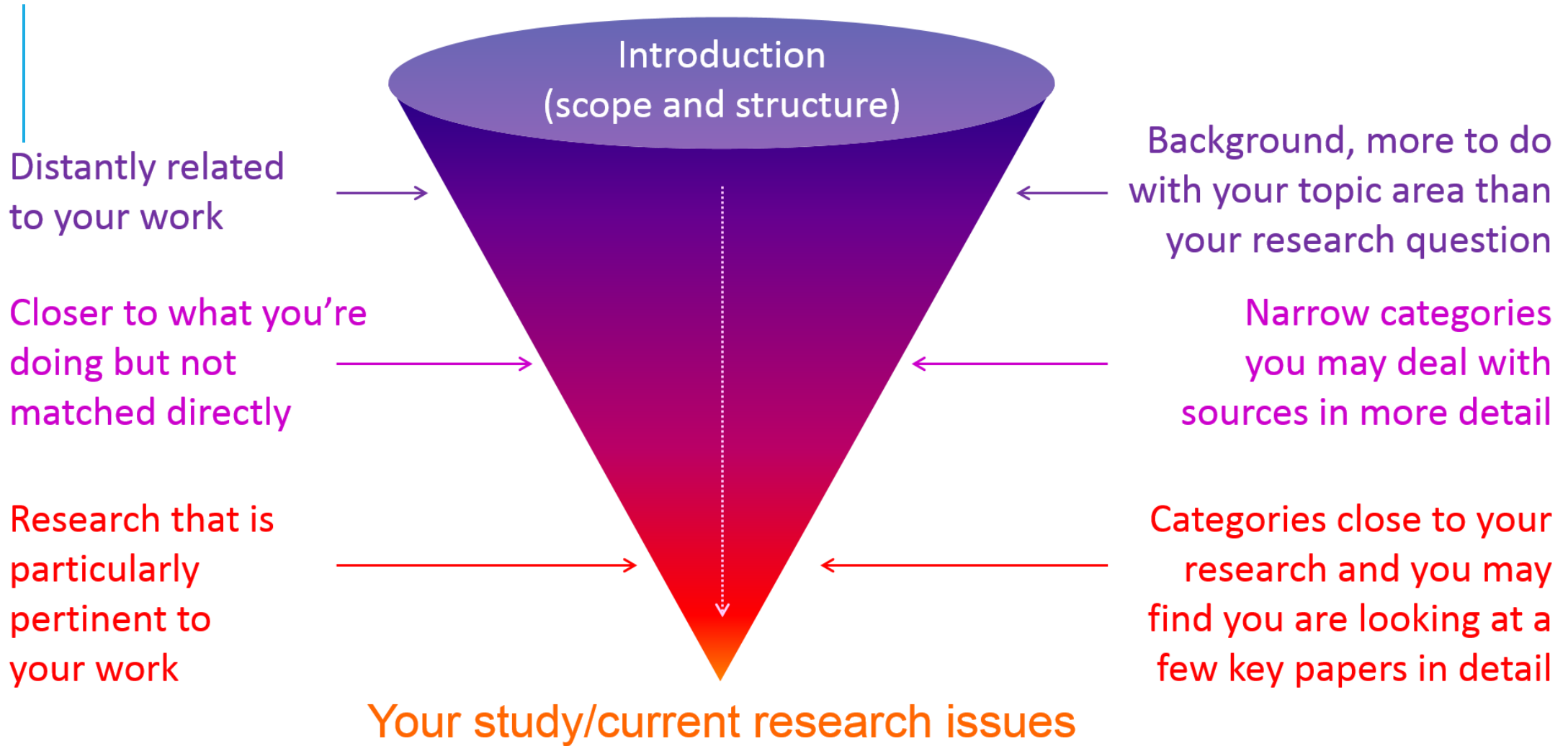
Why?

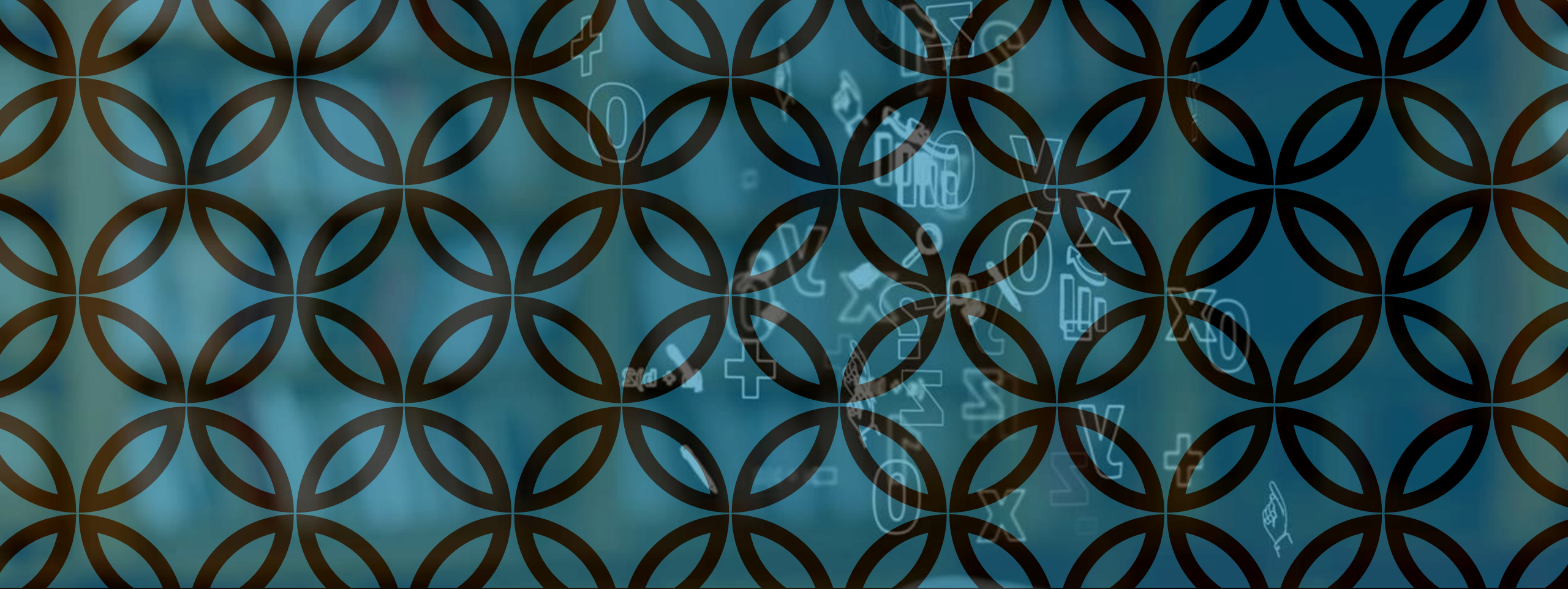
TASK (1):

- Think about an area/topic/theme that interests you;
- Undertake a search of the literature using the UWTSD library system and/or Google Scholar and/or JSTOR. Use keywords and phrases.

Find out:

- (a) How much literature exists about your topic? How many sources are available?;**
- (b) Is it the work of a small number of authors or do several authors write about the topic?;**
- (c) Is the work based on international studies or is it limited to one/a few countries?**
- (d) Has the literature been written in English, another language, or a mixture?**





HOW WILL YOU 'NARROW DOWN' THE LITERATURE
SO THAT THE READING IS MANAGEABLE?



NARROW DOWN YOUR SEARCH...

Click here:



Articles

Case law

Profiles

 My profile

 My library

 Alerts

 Metrics

Then click here:

 Advanced search

 Settings

NARROW DOWN YOUR SEARCH...

The image shows a Google Scholar search interface. The search bar at the top contains the text "second language acquisition" and a magnifying glass icon. Below the search bar, it indicates "About 11,700 results (0.03 sec)". On the left side, there is a sidebar with navigation options: "Articles", "Case law", "Profiles", "My profile", "My library", "Alerts", "Metrics", "Advanced search", and "Settings". The main content area displays search results. The first result is "[HTML] Linguistic alignment in second language acquisition: A methodological review" by YJ Kim and M Michel, published in 2023 on Elsevier. The second result is "[PDF] The contribution of second language acquisition" by Y Zhang, published in 2023 on Heliyon. The third result is "[BOOK] Second Language Acquisition" by SE Pfenninger and J Festman, published in 2023. An "Advanced search" modal window is overlaid on the right side of the search results. This window has a search bar and several filters. The "Find articles" section includes options for "with all of the words", "with the exact phrase", "with at least one of the words", and "without the words". The "where my words occur" section has radio buttons for "anywhere in the article" (selected) and "in the title of the article". The "Return articles authored by" section has a text input field with the example "e.g., 'PJ Hayes' or McCarthy". The "Return articles published in" section has a text input field with the example "e.g., J Biol Chem or Nature". The "Return articles dated between" section has two date input fields, with the first set to "2023" and the second empty, with the example "e.g., 1996".

Google Scholar

second language acquisition

About 11,700 results (0.03 sec)

Articles

Case law

Profiles

My profile

My library

Alerts

Metrics

Advanced search

Settings

[HTML] Linguistic alignment in **second language acquisition**: A methodological review
YJ Kim, M Michel - System, 2023 - Elsevier
... Given that our main interest is in the processing, where alignment ...
☆ Save Cite Cited by

[PDF] The contribution of **second language acquisition**
Y Zhang - Heliyon, 2023 - cell.com
... Despite the scarce adoption of second language acquisition to mainstream second language ...
☆ Save Cite Related

[BOOK] **Second Language Acquisition**
SE Pfenninger, J Festman, D ...
... As we go through life, our ...
... researchers in **second language acquisition** ...
☆ Save Cite Cited by

Current Approaches in **Second Language Acquisition**
A Mackey, SM Gass - 2023 -
... Another example of this trend of academic journals devoting space to showcasing and
revisiting research methods in our field include Studies in **Second Language Acquisition**, which ...
☆ Save Cite Related articles All 2 versions

Viewing **Second Language Acquisition** from the Philosophical Perspective of Mindfulness

Advanced search

Find articles

with **all** of the words

with the **exact phrase**

with **at least one** of the words

without the words

where my words occur

☒ anywhere in the article

☐ in the title of the article

Return articles **authored by**

e.g., "PJ Hayes" or McCarthy

Return articles **published in**

e.g., J Biol Chem or Nature

Return articles **dated between**

2023 —

e.g., 1996

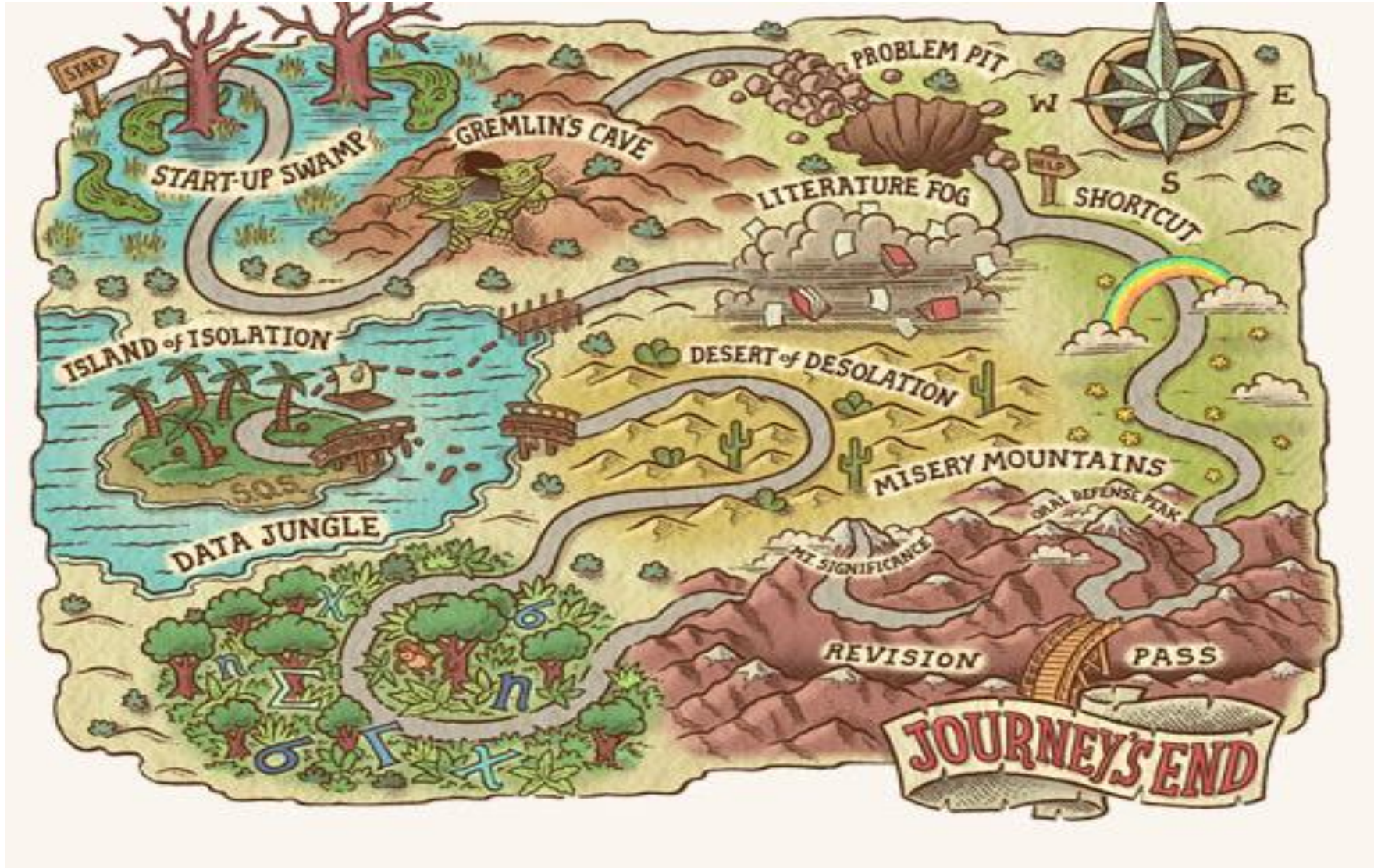
TASK (2):

- Think about an area/topic/theme that interests you;
- Undertake a search of the literature using the UWTSD library system and/or Google Scholar: <https://scholar.google.com> and/or JSTOR. Use keywords and phrases.

Find out:

- How much literature exists about your topic? How many sources are available?;
- **Is it the work of a small number of authors or do several authors write about the topic?;**
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- **Has the literature been written in English, another language, or a mixture?**

THE RESEARCH JOURNEY



Source: [Academic Coaching and Writing](#)

THANK YOU

- Any questions?

