Starting out

When starting out it's useful to read other literature reviews. This will quickly situate you in the current context, state of inquiry, and debates relevant to your subject area.

Read them, make notes, then track down the most useful primary sources.

Starting out

Textbooks can provide a very useful starting point for a literature review as they provide a long form, structured investigation into a topic.

Use your course reading list and ask your subject librarian for recommendations.

Starting out

For fast-moving subject areas, try looking at relevant PhD theses.

Their Context chapters will quickly situate you in their specific topic and their methodology may give you ideas about your own approach and help you to refine your own research questions.

Starting out

Reading someone else's PhD will quickly bring you up to speed in a specific subject area.

The UK's E-Thesis repository can be found at http://ethos.bl.uk

There are many other national and institutional repositories too.

Starting out

Textbooks can contextualise other relevant sources in a similar way to a review article, and provide a handy list of further reading.

Start with your course reading list.

Starting out

Use other people's PhDs or even Master's dissertations as a springboard towards published sources. Remember, if you use someone else's work in your final literature review you MUST cite it, just as you would a published source.

Starting out

Secondary sources discuss information that was originally presented elsewhere.

Use secondary sources to quickly gain an overview of the field, refine your research question, and track down key primary sources.

Starting out

One of the first things to do when undertaking a literature review is consider how you will keep records for the sources you use.

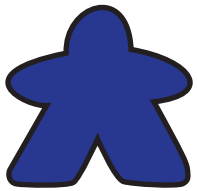
Reference management software will almost immediately pay back the hour or so you spend setting it up and learning how to use it.

Starting out

Don't forget, people are a resource too!

Have you made contact with your subject librarian yet?

Asked your supervisor for recommended starter readings?



Starting out

Prioritise your reading!

Make a list of articles to prioritise reading – you'll likely find your thinking changes as you read and make notes so plan for short cycles of identifying, evaluating, and reading your sources.

Starting out

Writing is a way of thinking.

If you write while you are using your sources it will help you to synthesise them into your overall understanding of the topic.

Starting out

Good reference management software helps you to keep excellent records of your entire bibliography.

Most have a notes field where you can keep your own notes digitally if you wish.

Starting out

Evaluate for authority!

Is the article peer-reviewed?

Are the authors well-established (and well-cited) in this field?

If the source is published by a public-sector or corporate organisation, are they the 'go to' authority on this topic?

Starting out

A trap to avoid:

Reading but not writing!

It's easier to read than to write. Writing takes much more effort. This is because you are actively engaging with your sources. Writing helps you to understand and find relationships between the work you've read.

Core research sources

Evaluate before reading!

A good rule of thumb is to never print out an article before you've read the abstract. A lot of time (and paper!) can be saved.

Abstracts are your friend!

Core research sources

Evaluate after reading!

Tips for peer-reviewed journals:

Was the research area well-enough contextualised relative to past work?

Was the article published recently enough that it represents current knowledge on the topic?

Core research sources

Research source: conference proceedings

Conference proceedings can include work at an early stage (e.g. results from an ongoing project that hasn't yet found firm conclusions).

This can be very useful for finding innovative work that hasn't made it to journal/book publication yet.

Core research sources

Evaluate before reading!

Tips for conference proceedings:

Are the proceedings published and if so, how prestigious is the publisher and in what format?

Core research sources

Evaluate after reading!

Tips for conference proceedings:

Have the authors been transparent about the limitations of their research?

What areas for further study have the authors identified as being of most importance?

Core research sources

Research source: books

As well as libraries, search for books using Google Scholar and Google Books.

Don't forget course reading lists, where tutors have carefully curated useful books for you to consult.

Core research sources

Evaluate before reading!

Tips for books:

Books are long.

Prioritise your reading using the introduction, first chapter, and conclusion. Which of the other chapters do you really need to consult?

Core research sources

Evaluate after reading!

Tips for reports:

Look closely at the data and the methodology behind it – does it support the information in the executive summary?

Is the topic something that the organisation benefits from you taking a particular view on?

Core research sources

Evaluate before reading!

Tips for reports:

Is the report current or is there a more recent one? What is the scale and scope of the study? Is this directly relevant to your research question? Read the executive summary first and decide if it is worth reading the whole report.

Core research sources

The world is full of sources that look relevant. A large part of reviewing your research context is getting rid of everything that's not extremely relevant to your specific topic!

Always spend the time to evaluate your sources before you use them – it will save you time in the long run!

Core research sources

Evaluate for academic rigour!

What methods were used? How accurate was measurement/ sampling? Does the evidence support the claimed results? How objective is the author? How well-evidenced is the author's expertise in this subject? Are their interpretations and/or opinions supported?

Core research sources

Research source: peer-reviewed journals

There are many databases which list articles, find out the best ones for your subject.

The easiest (although not necessarily the best) avenues to start with are: Google Scholar, your library, and the reference lists of articles you already have.

Core research sources

Research source: books

Use your library's online portal to search for books. Don't stop at your own library, use the library's databases to find more and if necessary, request them on interlibrary loan.

Core research sources

Evaluate before reading!

Tips for books:

Do not select books to read based on title alone. Look at the back-cover blurb and chapter list to see how much of the book's content really is relevant to you.

Consult the index to see how often your interest is mentioned.

Core research sources

Evaluate after reading!

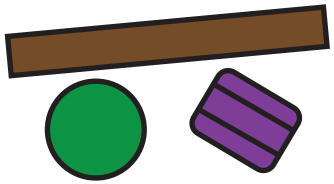
Tips for books:

Books are typically authored or edited by one or two people. When using books in your literature review, consider if you are getting the whole picture. Are there other sources which present different perspectives?

Core research sources

Research source: peer-reviewed journals

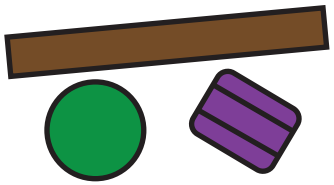
A relevant, peer-reviewed journal article is one of the most authoritative sources. Peer-review provides additional credibility and assurance of quality.



Wider context

Important research sources can be found in digital or physical archives.

Are there specialist archives covering your topic? Where are they based? Can you access their digital collections, or put in a research request?



Wider context

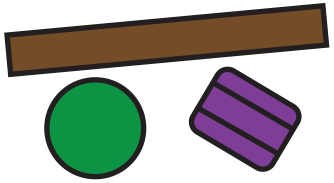
People are resources too.

Experts can help you find literature, but also give you valuable original data.

Interview people!

Set up focus groups!

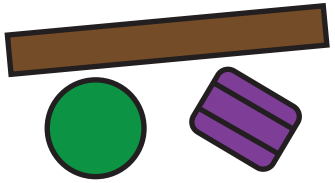
Canvas opinion!



Wider context

When researching your topic, do not forget that many useful sources of information are found outside academic publishing.

For some topics, the majority of your research sources may be drawn from this wider context.



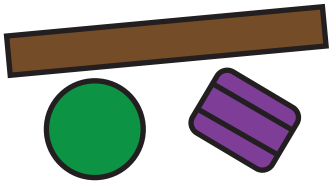
Wider context

What is the difference between a literature review and a contextual review?

If you are mostly referencing published, academic sources, you are writing a literature review.

If you are mostly referencing 'things' it is a contextual review.

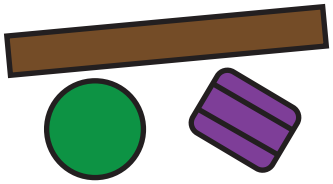
This game uses 'literature review' to stand in for both.



Wider context

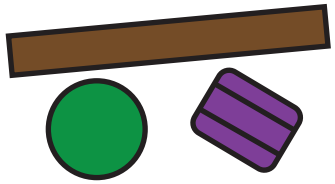
Remember, not all useful sources are found in a library.

Which museums have holdings of interest? Don't just visit the museum, contact their curators to ask about material not on display. Put in a research request. Read the reports of past events and exhibitions.



Wider context

People and their records could be relevant to your research. Data produced by individuals and communities can be found in internet fora, meeting minutes, social media, personal correspondence, interview transcripts, consultation documents, the census, cultural reports, and so on.

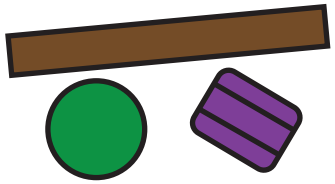


Wider context

Does your research involve consulting artworks?

Research the holdings of galleries and museums, including what is not on display.

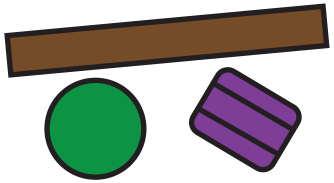
Look for image archives, both digital and physical. Use large image repositories such as Europeana, or the Visual Arts Data Service.



Wider context

Will you be undertaking historical research?

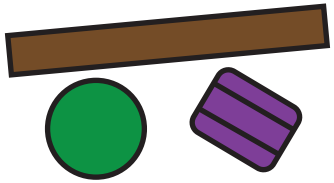
As well as the archives and museums related to your subject, consider consulting newspaper archives, both physical and online.



Wider context

Public policy is great for relating your research to real-world issues and showing demand and relevance.

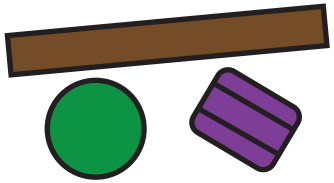
Seek out relevant governmental or council documents, white papers, and consultations. Are there also reports or studies from relevant charities or cultural organisations?



Wider context

Stand on the shoulders of giants by using other people's data. Why reinvent the wheel? Data could be demographic, astronomical, archives of MRI scans, measurements of fieldwork sites etc.

Find where this data is, evaluate it for relevance to your research questions, and if it suits, use it!

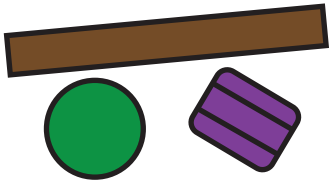


Wider context

The wider context includes equipment, places, and facilities you have access to.

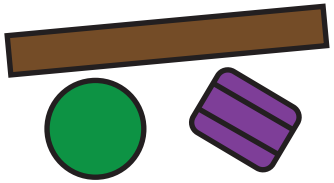
Does your research require a laser scanner? A laboratory? A gallery space? Particular software? Fieldwork?

Identify and evaluate these facilities as part of your contextual review.



Wider context

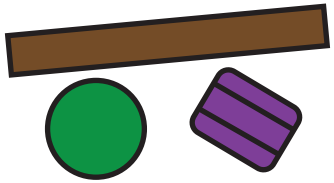
Using research context is an iterative process. Your understanding will change and be honed the more contextual research you do. Your overall understanding will change your ideas as you learn more about the research problem in its real-world context.



Wider context

Don't think of your first piece of writing as the definitive version.

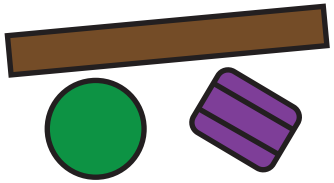
Writing is a way of thinking. It won't be perfect first time! Write as many drafts as you need as you increase your knowledge and understanding.



Wider context

Consider the feasibility of your wider context sources. A doctor can only give you so much of her time. The museum you need might be in Berlin. The exhibition may open after your literature review is due in.

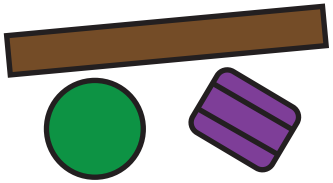
Be realistic and, if necessary, find a more feasible way to access the same information.



Wider context

Does your research involve design and creation of an artefact (e.g. artwork or software)?

What already exists? What are its main features and how is your idea different? You may have to undertake different sorts of review (e.g. technical review for software, crit for artworks) as part of your literature review.

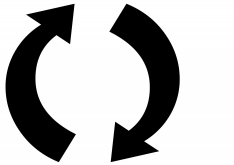


Wider context

When researching the wider context, pay attention to existing frameworks, conventions, and data standards in your field. For example, perhaps the sort of information you might be working with is always presented in a certain format?

This affects the design of your research.

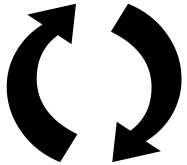
Refine and refocus deck



Refine and Refocus

"Literature review paradox"

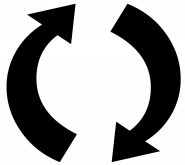
You can't do a literature review without knowing the research problem - but the review is what shapes the problem! Researching a topic is a cyclical process of identifying, understanding, and contextualising previous work, to refine your own research question.



Refine and refocus

Tips to refine your search

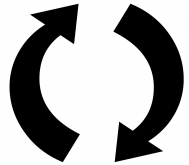
Use synonyms and alternate spellings. Use AND, OR. Remove unwanted words. Use terminology/keywords from your most relevant articles. Include a method in your search, if relevant. Use the 'related papers' and 'cited by' links in Google Scholar.



Refine and Refocus

Tips to focus a research question

What is your current understanding of an original research question? Search for it. Who else has done this (or similar)? What recommendations do they make for further research? Could you apply the research to a new domain or situation? Is there consensus?

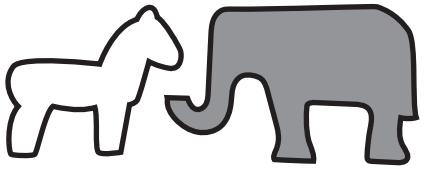


Refine and refocus

Literature review is a cycle, constantly trying to get closer to an original research topic.

Search, prioritise, read, analyse, and refine. From your first search, read the THREE articles that seem most relevant, make notes, then refine your search. Repeat.

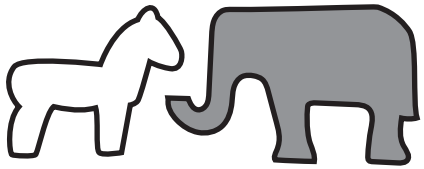
Look back on your notes.



Methodology

Research method: survey

Surveys gain the same kind of data from relatively large groups of people in a consistent and standardised way. Surveys can be qualitative, quantitative, or both. They aim to identify patterns using statistics or qualitative analysis. Surveys can capture correlation but not causation.

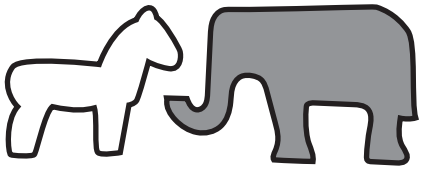


Methodology

Research method: design & create

Creating something (e.g. sculpture, product, or software) is likely to be iterative, involving multiple design, create, evaluate cycles.

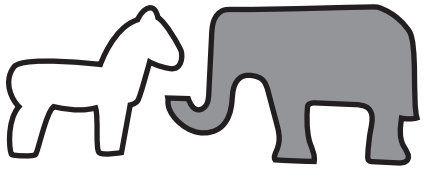
Practice-as-research aims to create missing knowledge in process, product, or both.



Methodology

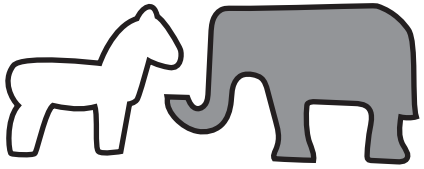
Research method: experiment

An experiment tests a hypothesis and investigates cause and effect. Experiments involve before and after measurements in control and test groups. Experiments require statistical analysis to correctly interpret the results.



Methodology

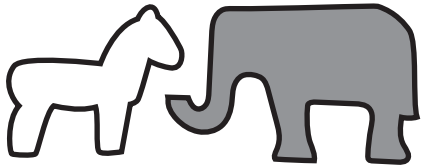
Correlation does not equal causation!



Methodology

Research method: case study

Case studies focus on a single instance of the thing being studied, e.g. one class of students or one supermarket. Case studies provide a very rich and detailed insight into that particular case. Case studies can be descriptive, explanatory, or exploratory.

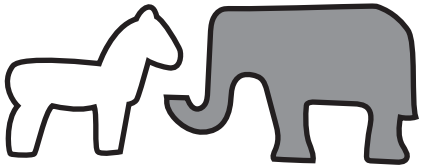


Methodology

Research method: action research

Action research is based on incremental cycles (plan, do, reflect, repeat) whilst adhering to to rigorous research procedures.

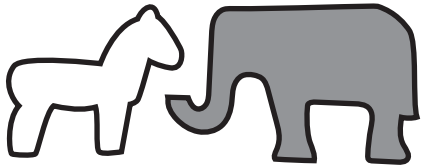
The researcher is intrinsically involved in the problem and its solution, their participation affects the results.



Methodology

Research method: ethnography

Ethnography is the study of cultures in context, typically achieved through detailed documentation of observations (e.g. field journal, audio recorder) and later interpretation. The researcher inhabits the group /culture studied and therefore is not a detached observer.



Methodology

Research method: historical research

This method uses documentation of the past in an attempt to discover new knowledge (e.g. newspapers, correspondence, sound/video archives, diaries, ephemera). It requires the skills to find, evaluate, understand, and interpretat sources.

Evalute deck

What is the most authoritative research source for **your** topic?

How would you prioritise a list of sources to read?

Why are peer-reviewed research sources usually considered to be 'better'?

Why is it important to look closely at the methodology of a particular study?

What is the very first thing **you** might do to start **your** literature review?

What are some of the benefits of actively making notes as you review your sources?

What are some things to consider when thinking about the objectivity of a source?

Name some of the methods used in research in **your** topic area. Which would you consider using?

How do you establish what the seminal research papers are for your topic?

What types of research source are likely to be the most current?

Name some research sources in **your** topic are that are NOT academic literature? How important are they?

What people, organisations, or facilities are relevant to **your** research topic? How might **you** use them?

4

Every time you place an acrobat, suggest a keyword for your research idea.

4

Each time you place a plank, ball, or barrel, name a non-literature source you might consult in your research.

5

Each time you place an animal, briefly describe a research method that might be appropriate to your research.

6

Each time you place an acrobat, name a person (or role) you might consult when doing your literature review.

Challenge deck - to replace existing blue challenge deck. Add your own challenges if desired.

5

With each cymbal crash name a journal or database you will consult in your literature review. If you run out, ask for suggestions.

6

Assemble your research using only one hand. When finished ask your tutor where students can get support for their individual requirements.

6

As you place your last piece, do a drum roll with the fingers of one hand as you describe the real-world impact of your research idea.

6

Interdisciplinary research! Ensure you have components in every 'zone' marked on the circus ring and that all are linked.

6

Whenever you place an animal on top of an acrobat, briefly describe how research methods can affect results.

5

Each time a piece falls off your structure, name a potential risk to your research project.

6

Each time you hear applause on the soundtrack, stand up, bow, and name a likely beneficiary of your research.

4

Each time you place an acrobat, describe a way of evaluating or prioritising what to read.

5

.Each time you hear applause on the soundtrack, give a reason why citation of sources is important.

5

Each time you place an animal, describe a way of evaluating a research method.

5

With each cymbal crash, give a reason why primary sources are better than secondary sources.

7

Every time you place a component, name a way of refining your literature search.

6

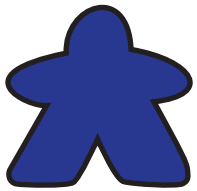
Every time you place an acrobat, name a way of refocussing your research question.

Starting out

Look for other (recently published) reviews.

Limit your search to articles and journals with 'review' in the title.

A review may also be called "literature survey", "meta-analysis", "meta-review" or "Cochrane review/study" (in medicine).



Starting out

Evaluate for relevance!

Consider carefully the words that stand out in the: Title; Keywords; Abstract; Introduction and Conclusion.

Is this article still a close fit for your purposes?

Starting out

Writing helps you think critically about your sources.

Active note-taking aids: recall, revision, interaction with the material, and identifies and condenses the most relevant ideas.

Starting out

Make notes on the literature you review as you go.

Note down the specific topic, broad theoretical framework, the main argument/findings, and your own thoughts.

Starting out

Have you found a perfectly relevant article? Don't stop reading at the conclusion but scan down the reference list.

What sources have they cited that would benefit you?

Follow the trail of breadcrumbs and read the most relevant references too.

Starting out

Several of the articles you're reading are citing the same source?

This indicates that this could be an important source for your area of study. Don't take their word for it, track down the original and read it for yourself.

Starting out

Many sources that are incredibly useful when starting out your literature review (such as other reviews, PhD theses, annotated bibliographies, and textbooks) may not have a place in your final reference list.

Let them lead you to the good stuff.

Starting out

Rigorous record-keeping is a cornerstone of efficient research.

Use a reference manager!

Some examples include Mendeley, Zotero, or EndNote.

Core research sources

Evaluate before reading!

ips for peer-reviewed journals:

Journal articles give you lots of ways to ascertain if the content is highly relevant to you. The title of the article and the journal are obvious indicators but also check the keywords and abstract.

Core research sources

Evaluate after reading!

Tips for peer-reviewed journals:

Did the analysis/conclusion match the results presented?

Was the methodology described in enough detail to convince you of rigour?

Core research sources

Research source: conference proceedings

In some disciplines (particularly fast-moving research areas), it's all about the conference paper.

Journal articles can take years to be published, so conference papers are often more up to date.

Core research sources

Evaluate before reading!

Tips for conference proceedings:

How well-respected is the conference? (How long has it been running? How many delegates? Have experts told you it is a great conference?)

Is it an international conference?

Core research sources

Evaluate after reading!

Tips for conference proceedings:

Is the work at a stage where firm conclusions can be drawn?

Are the discussions and results well evidenced?

Core research sources

Research source: non peer-reviewed journals

Only turn to journals that are not peer-reviewed if you have genuinely exhausted more well-respected sources. Make sure you are doubly rigorous when interpreting journal articles that are not peer-reviewed.

Core research sources

Research source: organisational reports

Reports can come from: governments, corporations and businesses, research councils, international organisations, and expert foundations.

Reports are great for finding recent facts and figures, often based on large studies.

Core research sources

Evaluate after reading!

Tips for reports:

If authors or organisations may have an agenda it is important to exercise caution in interpretation. How much do you trust the organisation in question? Are the authors independent?

Cutting-edge sources

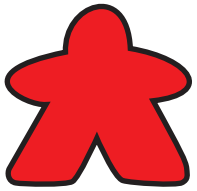
Evaluate for currency!

Is this 'leading edge' research?

How recent is it?

Does it point towards future work that might now also be available?

Check research profiles on university websites to see if the research is ongoing.



Cutting-edge sources

Evaluate after reading!

Tips for innovative studies:

How recent is this research?

What are the limitations of the study or output?

How confident are you in repeating these findings as 'truth'?

Cutting-edge sources

Research source: Innovative studies

Innovative studies can come from a range of sources, e.g. conferences, reports, and journals. Very recently published research that claims innovative results is useful to establish the current research priorities in your field. This can help you to refine your own research question.

Cutting-edge sources

A trap to avoid:

Reading but not writing!

Don't put writing off until you've finished reading or you'll never finish.

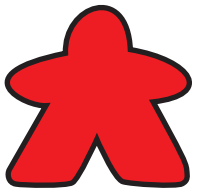
You will probably still be doing some reading even after your literature review is 'finished'.

Cutting-edge sources

Evaluate before reading!

Tips for innovative studies:

Who are the authors and what are their track records? How definitive is the abstract about the findings? Where is it published (if at all)? If you found the study via a press release, does the research described really match the headline?



Cutting-edge sources

Evaluate after reading!

Tips for innovative studies:

What is the weight of evidence behind the conclusions drawn? Have the authors claimed firm results or are their conclusions preliminary or indicative?

Might the authors benefit commercially in some way?

Cutting-edge sources

Using your sources!

Tips for innovative studies:

Can you challenge or corroborate new results? Can you apply the same knowledge in a different situation (e.g. different technology, users, discipline, or methodology) and see if the findings still apply?

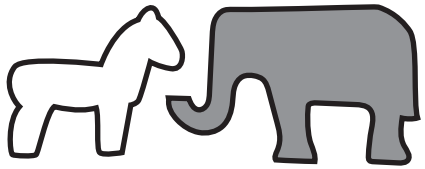
Cutting-edge sources

Using your sources!

Tips for innovative studies:

Research that claims new knowledge helps you to refine your own research question.

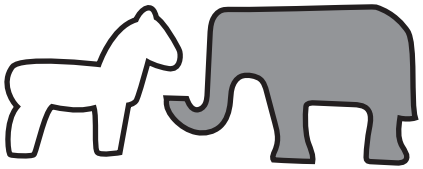
Have the authors explicitly identified a research gap? How might your research complement existing ongoing research?



Methodology

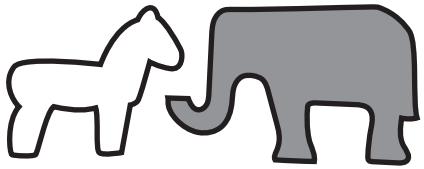
What is the difference between methods and methodology? Methods are simply tools used in your research, for example, an interview or a measurement.

Methodology is the rationale for your approach to your research and encompasses your conceptual framework.



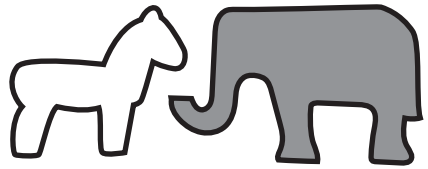
Methodology

There are two general types of data, quantitative and qualitative. Quantitative data is information that can be measured in terms of numbers, e.g. your height or a rating between 1 and 10. Qualitative data is information about qualities that can be described but not measured, such as the softness of a cat.



Methodology

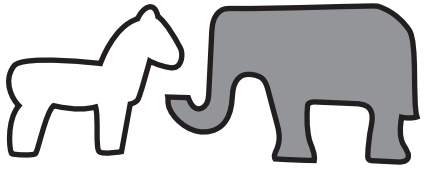
A theoretical framework is a way of explaining the structure of your thinking. It draws on underlying theory as well as your own approach to the topic. Theories provide systematic ways of understanding the world and explaining ideas. Your theoretical framework will affect your choice of research methods.



Methodology

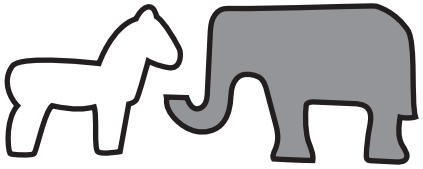
Reviewing methodology is part of a literature review.

Identify and analyse what methodologies previous researchers have used. Were they successful? What problems and improvements have been suggested in the literature?



Methodology

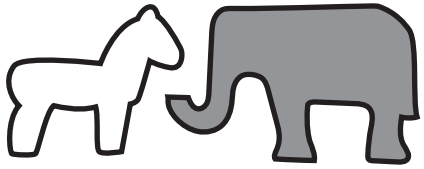
Remember, your research method must serve your research question, not the other way around!



Methodology

Conceptual analysis

Conceptual analysis is used to clarify the meaning of terms and to identify the ideas or entities that ought to be captured by them. Analysis might seek to identify the essential properties of things falling under a concept, to identify family resemblances, or describe typical examples.



Methodology

Sampling

Methods involving sampling (e.g. surveys, experiments) make wider generalisations from data gathered from the sample. Sample population must be appropriate to the research question, representative, and large enough to generalise.