

ACE Quick Guide to Writing a Methodology

What is the Purpose of a Methodology?

The purpose of a methodology is **to explain and justify your approach to data collection and analysis** – considering the strengths and limitations of your chosen techniques in practice.

Your methodology should therefore address the following two questions:

1. Why did you select this approach over potential alternatives?
2. Why is it the most suitable approach in the context of your research aims and objectives?

(Adapted from Sheffield Hallam University, 2025a)

What Should I Include in My Methodology?

Whilst **your assignment brief will include any programme-specific requirements**, a methodology typically explores the following:

1. Research Philosophy or Paradigm

Your research philosophy is a **set of core assumptions or beliefs that underpin the approach taken** in conducting the study. This philosophy will inform every subsequent decision, including your selection of data collection and analysis methods.

As such, it is important to consider **how your philosophy aligns with the project's aims and objectives**.

2. Methodology

Are you conducting **qualitative, quantitative, or mixed-methods research**? You will need to explain the advantages of your selected methodology, clarifying why potential alternatives were discounted.

3. Methods – Data Collection and Analysis

How did you collect and analyse the data?

You should describe both with enough detail that future researchers could replicate your approach from the information provided.

It is crucial to **justify the suitability and applicability** of your data collection and analysis methods in the context of your project's aims and objectives using relevant scholarly literature.

4. Data Sources / Participants	<p>Explain how you sourced the data or who participated in the study. Which sampling method did you use? How did you identify a suitable group to research or recruit participants?</p> <p>If your research includes human participants, you will also need to consider ethical factors, demonstrating that you have implemented the necessary measures to obtain consent and maintain confidentiality.</p>
5. Limitations	<p>Acknowledge the potential limitations of your project, engaging with the broad disadvantages of your data collection and analysis methods outlined in the literature. You may also consider issues relating to time, scope, and access, acknowledging the impact they could have had on your project.</p> <p>However, you should avoid overstressing these constraints or being overly critical of your research; as the primary function of the methodology is to justify your approach, doing so could undermine the validity of your findings.</p>

(Adapted from University of Southampton, 2025; Sheffield Hallam University, 2025a)

Selecting a Research Philosophy or Paradigm

The purpose of outlining your research philosophy or paradigm is to demonstrate an understanding of how it impacts the design of your project. **Your research philosophy indicates your worldview in the context of the research, encapsulating your ideas about the way studies should be conducted, and how data is collected, analysed, and interpreted.**

You will need to **conduct research into different paradigms** before deciding on your own. The assumptions of two opposing research philosophies, **positivism** and **interpretivism**, are summarised below in Table 1.

For simple, easy-to-understand definitions of selected terminology utilised here and throughout this guide, see the [ACE Methodology Term Buster](#).

(Adapted from University of Southampton, 2025)

Table 1: Assumptions of Positivism and Interpretivism (The Open University, 2016; Alkhalil, 2016, cited in Sheffield Hallam University, 2025b)

Assumptions	Positivism	Interpretivism
<i>Nature of reality</i>	Objective, tangible, and singular.	Subjective, socially constructed, and multiple.
<i>Goal of research</i>	Explanation.	Understanding.
<i>Focus of interest</i>	What is general, average, or representative.	What is specific, unique, or atypical.
<i>Knowledge generated</i>	Absolute laws (based on the accumulation of measurable data; value-free).	Relative meanings (based on time, context, and culture; value-bound).
<i>Subject / researcher relationship</i>	Rigid separation.	Interactive, cooperative, and participative.
<i>Asks of knowledge</i>	Is it true?	What does it do? How can it be used – by whom, and to what end? Whose interest does it serve? What does it make possible?
<i>Associated data collection method</i>	Quantitative – a hypothesis is devised and tested against empirical, measurable data.	Qualitative – a rich and deep understanding of the phenomenon being investigated is arrived at through questioning and observation.

Qualitative, Quantitative, or Mixed-Methods Research?

Your research philosophy will also inform your choice of methods. Figure 1 explores the differences between qualitative, quantitative, and mixed-methods research. You will need to **consider which best aligns with your project's aims and objectives.**

Qualitative Research	Quantitative Research	Mixed-Methods Research
<ul style="list-style-type: none"> • Smaller sample size to study human behaviour, feelings, opinions, or experiences. • Collection of non-numerical data using methods such as case studies, unstructured interviews, open-ended survey questions, and focus groups (Cottrell, 2014, p. 93). • Data is analysed using a relevant framework to identify and understand overarching themes or relationships. • Both the data and the researcher's analysis of it is subjective; control measures should be established or potential biases and limitations acknowledged. • Suitable for in-depth analysis of individual demographics or organisations, but may not be widely applicable. 	<ul style="list-style-type: none"> • Broader scale, producing larger volumes of data to test a hypothesis or make generalisations. • Collection of measurable, numerical data using methods such as questionnaires, structured interviews, or published datasets (Cottrell, 2014, p. 93). • Data is analysed mathematically and statistically - often presented in graphs and tables - to infer patterns and trends. • Suitable for problems that can be analysed according to identified variables, but less so for addressing 'why' questions or those involving complex social phenomena. 	<ul style="list-style-type: none"> • Combines both qualitative and quantitative methods to generate a more comprehensive understanding of the phenomena than possible through a monomethod approach. • Qualitative and quantitative data may be collected concurrently or sequentially depending on the study's purpose, but must be effectively integrated and mutually informative.

Figure 1: The Differences Between Qualitative, Quantitative, and Mixed-Methods Research (Adapted from University of Leeds, 2018; Newcastle University, 2022; Ulster University, 2025; University of York, 2025; University of Westminster, 2025a)

Justifying Your Approach

Throughout your methodology, you will be required to justify the design of your research project – demonstrating both its **appropriateness** and **the extent to which your approach was influenced by existing studies in your field**. You can use the following questions to begin:

1	Why was this method the most suitable or relevant ? What were the benefits ? Can you provide any evidence from the studies included in your literature review?
2	According to this literature, what were the potential drawbacks of your method? To what extent did you overcome them? Why did the benefits outweigh these drawbacks in the context of your research project?
3	If you utilised a combination of approaches, to what extent did the benefits of each method counteract drawbacks associated with the other? Why was this combination of approaches necessary to fulfil your research aims and objectives? What did the existing studies either neglect to consider or do well?
4	What alternative methods were considered? Why were these methods ultimately disregarded? Try to engage in comparative analysis!

Your justifications may also **derive from your literature review**. For example:

The existing studies used methodologies that **conflicted with the established knowledge** or understanding of the phenomenon, motivating you to propose a new approach.

The methodologies other researchers employed **failed to adequately explain the phenomenon**, leading you to develop a more thorough approach.

The methodologies implemented in previous studies were **flawed or insufficient**, presenting an opportunity for you to correct the problem and improve upon their work.

(Adapted from University of Westminster, 2025b)

Planning the Structure of Your Methodology

To ensure your methodology **progresses logically** and **sequentially**, it can be useful to think of it in terms of layers which ultimately comprise the 'Research Onion' shown in Figure 2. There is no requirement follow these exact layers as some may not be relevant to your research project; your assignment brief will also include any programme-specific guidelines.

However, this **layered 'out-to-in' structure** developed by Saunders, Lewis, and Thornhill (2007) is a useful starting point as it will encourage you to demonstrate how certain decisions impacted others.

For example, you will need to state whether your research is qualitative, quantitative or mixed-methods before explaining your data collection methods. Likewise, you will need to describe how and why you collected your data in this way before you discuss its analysis.

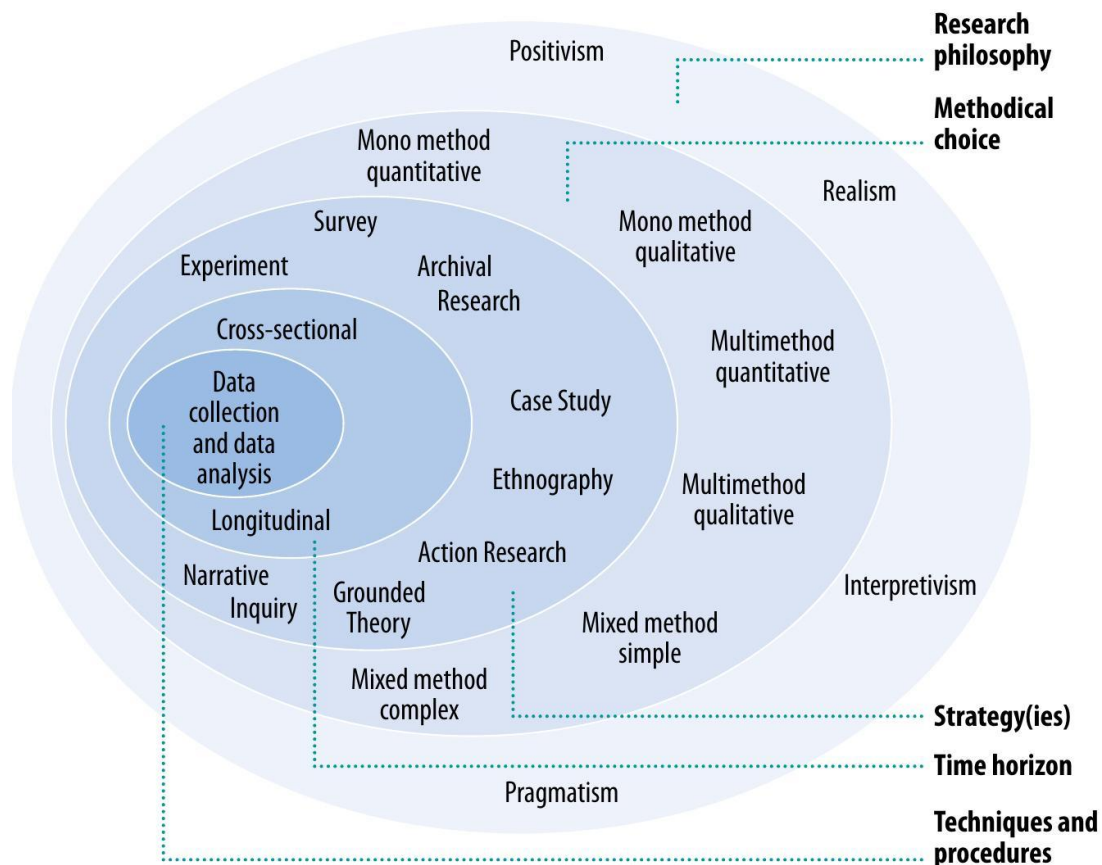


Figure 2: The Research Onion (Saunders, Lewis, and Thornhill, 2007)

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