



Critical thinking

Critical thinking is often talked about at university. That's because it's a very important skill for you to develop as you go through your degree.

Critical thinking is a life skill

You probably already have experience in critical thinking from other areas of life, such as deciding on which phone or computer or car to purchase, where to live, or even what to wear on a particular occasion. In each situation, you probably don't just do what someone else tells you to do, but you make a decision based on a range of factors. For example, if you're looking for a room or property to rent, you might have to evaluate things such as:

- What are the positive points of the property, and what negative points does it have (e.g. first floor apartment means no steps, but possibly less privacy and less security; bedroom is next to driveway so it could get traffic noise; I get my own bathroom, but I'll have to keep it clean myself)?
- Can I afford to live in the property, not just now but for the whole lease period?
- Does the property meet my living needs (enough space for family, pets allowed, smoking allowed, quiet enough, laundry facilities, heating/cooling, etc.)?
- Is the location suitable for my lifestyle (access to transport, distance to work or university, friends, shops, nightlife, etc.)?
- How does this property compare to other properties in the same area or different areas?
- Am I likely to be accepted as a tenant?
- Would I be able to live well with the neighbours/housemates?



The answers to these questions form part of the evidence you consider in order to make your final decision about where you will live.

Critical thinking at university

At university, critical thinking and writing involves many different ways of thinking. The diagram below shows some of these.



(Adapted from Hub for Academic Language and Learning (HALL), 2015).

It's good to remember that being **critical** in your thinking is not the same as being **negative**. For example, when you are reading a paper you might think the author has made a good point. The 'critical' part is being able to say *why* you think they've made a good point based on their evidence and argumentation.

If you do disagree with someone's ideas, you should always do so respectfully. You can show respect by taking their ideas seriously and doing your best to understand how they came to their conclusions. If you go through this process of genuinely engaging with other people's ideas, you have the right to disagree (even very strongly) with an author's view.

(Adapted from Miles & Spies-Butcher, 2012).

Why do I need to think critically?

In some cultures, students are expected to memorise information and regurgitate it in an exam. In the Australian university context, you are considered a member of the academic community. You are expected to be able to think independently and form your own conclusions based on information from various sources.

Thinking critically has the following benefits:

- you get to see that there is always more than one way of looking at something
- you'll be able to identify the best ideas and evidence to use in your assignment, and not just settle for the first thing you read
- your assignment will stand out from the rest because your ideas will be better supported and more convincingly argued
- your own ideas and academic 'voice' will be clearer in your writing because you are better able to explain how and why ideas differ
- you'll develop your knowledge and understanding more generally as you make connections between different ideas and methods
 - you'll become a better problem-solver and lifelong learner
 - you'll be more attractive to employers

How do I develop my critical thinking skills?

Some general tips for critically evaluating ideas or methods are:

- asking questions
 - considering what someone means by a particular idea
 - comparing and contrasting with other ideas or methods
- examining the evidence that someone presents to support their idea or method
 - examining the way someone argues their point
 - identifying the strong and weak points of an idea or argument
- reading widely on a topic to immerse yourself in it and become familiar with the kinds of terms and frameworks used

Questioning as you listen

Your lecturer or tutor may mention some research that is relevant to the lecture topic. Make a note to read it later and check it out.

Your lecturer or tutor may use a technical term or symbol that has a meaning different from what you might expect.

Ask them about it.

Questioning as you read

Before you read a source in detail, consider whether that source is appropriate for your academic work.

You can use the 'APPEAL' framework to help you.



Watch [Using APPEAL to evaluate sources](#) (video), Library podcast, 6:26, and [Using APPEAL to evaluate websites](#) (video), Library podcast, 8:09.

Once you have identified appropriate sources for your assignment, use the questions in the table below to help you develop your critical reading skills. As you read, look for information to answer the questions. To make it more manageable, read through the list and choose one question from each box to answer about your reading.

Feature	Questions to ask about that feature
Purpose	Why has the author written the material? Does the author state his or her purposes explicitly? Are there other 'hidden' purposes?
Audience	Who is the intended audience of this material (e.g. other academics, students, general public, government officials, businesses)?
Focus & scope	Which aspects of the topic has the author chosen to concentrate on? Which aspects have they left out? Do they give any reasons for leaving out an aspect of the topic? Is the material presented in breadth (wide coverage but not very deep) or depth (detailed coverage of a narrow aspect of the topic)? What is the main argument or theme in the material?
Evidence	What explanation or evidence is used to support the main points? Is there any evidence of deliberate bias, such as which sources are used or how the material is interpreted? Do the facts seem correct? How easily could you check them? Has the author included any material that seems irrelevant?
Argumentation	How does the author introduce the subject? How does the author develop the argument or theme from one main point to another? How does the conclusion relate to the introduction and to the rest of the material?
Assumptions & influences	What are the author's assumptions? Are these explicitly stated? Is the author's purpose influenced by a contemporary issue or a particular philosophy? Is the author defending a particular point of view?
Organisation	What framework is used to organise the material? Is the framework clearly explained? How is the content organised and developed within the framework? Does the author restate what has been said at appropriate points? Does any graphic material (tables, diagrams, etc.) illustrate or restate the written content?
Style	In what style has the material been written? For example, is it formal or informal, simple or complex, didactic (teaching) or persuasive, narrative (telling a story) or analytical (pulling something apart and examining it)? How does the style and format influence your reaction to the material?
Your knowledge and questions	Which of your questions about the subject does the author answer? How are the contents related to what you know about the topic? Do any items puzzle or intrigue you?

(Adapted from Murdoch University (2016), after Marshall and Rowland (1981, pp. 102–103)).

Questioning as you write

As you research and write, you will make decisions and come to conclusions about particular questions and ideas. It's important to examine your own processes and ideas as well as those of others. For example, you might ask 'Why did I come to that conclusion?' and 'Why did I decide to include that piece of evidence but not another one?'.

More information

→ When you are starting to prepare for an assignment, try the following steps to immerse yourself in your assignment topic:

1. Plot your personal ideas on a topic before reading the assigned readings and any other readings. You could draw a mind map or use a free online mind mapping tool such as [MindMup](#) (use Chrome, Firefox or Safari browsers).
2. Read an introductory text or a chapter in your textbook on this topic. Has the reading changed or affirmed your views?
3. Read another chapter or text written by a different author on the same topic. How did the ideas presented by this author 'fit' with the first author? Have your ideas been further modified or not? Why or why not?

(Adapted from Hub for Academic Language and Learning (HALL), 2016).

→ For more tips on critical and active reading, see [How to read effectively](#) (PDF, 519 kB).

References

Hub for Academic Language and Learning (HALL) (2016). *Developing your critical writing abilities*.

Western Sydney University.

Marshall, L. & Rowland, F. (1981). *A Guide to learning independently*. Melbourne: Longman Cheshire.

Miles, B. & Spies-Butcher, B. (2012). *Short exercise practice 1: Critical analysis – reading*. Sydney:

Department of Sociology, Macquarie University.

Study Successfully. (2016). *Critical thinking is the art of asking questions*. Murdoch University.

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