

Section 3 – Develop the skills you'll need at university



Critical Thinking

Developing critical thinking skills is essential to your success at University and beyond. We all need to be critical thinkers to help us navigate our way through an information-rich world.

Whatever your discipline, you will engage with a wide variety of sources of information and evidence. You will develop the skills to make judgements about this evidence to form your own views and to present your views clearly.

One of the most common types of feedback received by students is that their work is 'too descriptive'. This usually means that they have just stated what others have said and have not reflected critically on the material. They have not evaluated the evidence and constructed an argument.

What is critical thinking?

Being critical does not just mean finding fault. It means assessing evidence from a variety of sources and making reasoned conclusions. As a result of your analysis you may decide that a particular piece of evidence is not robust, or that you disagree with the conclusion, but you should be able to state why you have come to this view and incorporate this into a bigger picture of the literature.

Being critical goes beyond describing what you have heard in lectures or what you have read. It involves synthesising, analysing and evaluating what you have learned to develop your own argument or position.

Critical thinking is important in all subjects and disciplines – in science and engineering, as well as the arts and humanities. The types of evidence used to develop arguments may be very different but the processes and techniques are similar. Critical thinking is required for both undergraduate and postgraduate levels of study.

Active reading

Purposeful reading can help with critical thinking because it encourages you to read actively rather than passively. When you read, ask yourself questions about what you are reading and make notes to record your views. Ask questions like:

- What is the main point of this paper/ article/ paragraph/ report/ blog?
- Who wrote it?
- Why was it written?
- When was it written?

- Has the context changed since it was written?
- Is the evidence presented robust?
- How did the authors come to their conclusions?
- Do you agree with the conclusions?
- What does this add to our knowledge?
- Why is it useful?

Being a university student is about learning how to think, not what to think. Critical thinking shapes your own values and attitudes through a process of deliberating, debating and persuasion. Through developing your critical thinking you can move on from simply disagreeing to constructively assessing alternatives by building on doubts.

Have a look at this table which describes the difference between descriptive and analytical writing:

Descriptive writing	Analytical writing
States what happened	Identifies the significance of something that happened
States what something is like	Evaluates its strengths and weaknesses
States the order in which things happened	Structures information in order of importance
Explains what a theory says	Discusses the importance/failings/relevance of a theory in relation to a topic/idea
Explains how something works	Indicates why something will work (best)
Notes the methods used	Evaluates whether the extent to which the methods used were fit for purpose
Says when something occurred	Identifies why timing is of importance
States the different components	Weighs up the importance of component parts
States links between items	Shows the relevance of links between pieces of information
Gives information	Draws conclusions

Adapted from: Cottrell, S., (2008) *The Study Skills Handbook*, Hampshire: Palgrave Macmillan, p286.

Keen to find out more?

Have a look at the University of Sheffield's guide to critical thinking:

<https://www.sheffield.ac.uk/ssid/301/study-skills/everyday-skills/critical-thinking>

Why not have a go at this 2 week (8 hours in total) on-line course hosted on the Future Learn website which explains how critical thinking works in practice:

<https://www.futurelearn.com/courses/critical-thinking-at-university>