



Critical Thinking

Overview

- What do we mean by critical thinking?
 - How do you apply it to your academic reading?
 - How do you apply it to your academic writing?
- How does critical thinking differ between disciplines?
- Critical thinking in practice

What do we mean by critical thinking?

Critical thinking is *not*:

- Passively memorising ideas
- Accepting everything you see and hear
- Being 'negative'

It is defined as:

- Skilful judgment as to truth or merit
- Evaluation
- Review

It involves:

- Asking probing questions
- Evaluating the quality of ideas and arguments
- Categorising ideas
- Finding relationships between ideas



What do we mean by critical thinking?

It moves beyond understanding one idea in isolation...

What is this person saying?

... to consider that idea in broader contexts:

Your unit

Your course

The literature in your field

The 'real world'

Our current political, social and economic climate . . .

What do we mean by critical thinking?

To think critically means more than just identifying and repeating useful information. Students need to:

- **interpret**
 - understand the significance of data and to clarify its meaning
- **analyse**
 - break information down and recombine it in different ways
- **reason**
 - create an argument through logical steps
- **evaluate**
 - judge the worth, credibility or strength of statements and claims.

Applying it to your reading . . .

Sit down to read with a clear purpose



If you are reading to keep up with the content of your unit, your purpose is to:

- **Understand the main ideas** in the readings
- **Make links** between the readings and the lectures
- **Generate questions**, comments and ideas to use in the follow-up tutorial discussion or on the Moodle discussion board
- Keep clear, well-organised **notes to refer back to** when it's time for exam-revision

Applying it to your reading . . .

Sit down to read with a clear purpose



If you are reading to prepare for an assignment, your purpose is quite different, so your methods of reading should be also:

- **Find answers** to your assignment question
- Scan the text for **particularly relevant sections**
- Find concepts, information and ideas you can **use to make particular points**

Applying it to your reading . . .

Skim read first

- **Read any available summaries or abstracts**
 - This will give you an overview of the content and the main argument or concept
- **Look at the headings, sub-headings, pictures or diagrams**
 - This will give you a picture of what is covered
- **Read the introduction and the conclusion first**
 - The main argument will always be stated more concisely and clearly in these places, so reading them first will help you get a handle on the text's main aim from the beginning.

After you've done this, perhaps try to jot down a short summary (a couple of sentences) of what you think the text is saying.

Applying it to your reading . . .

Generate a list of questions to make connections in your unit/course/field . . .

What do I know about this topic already?

What do I still need to know?

What 'parts' make up this idea?

What other ideas can I group this with?

How does this compare or contrast with other ideas?

What other claims might this idea support?

How could this idea join with others to make a big idea?

What are the similarities and differences between this idea and others?

Applying it to your reading . . .

Generate a list of questions

to make connections with the 'real world' . . .

What are my experiences with this idea?

How can this idea be applied to practical situations?

What practical problems does this idea create. . . or solve?

What is this idea relevant for?

What are the practical strengths and weaknesses of this?

What would this idea lead to if implemented?

Applying it to your reading . . .

Generate a list of questions to make connections with our current political, social and economic climate . . .

Who wrote this text, when and why?

What is the strategic purpose of this idea? Or, why this, now?

What does the author want me to believe and why?

What has led to this idea? Or, what has caused this?

What would the effect of this idea be?

What would this idea lead to if implemented?

Applying it to your reading . . .

Generate a list of questions to evaluate quality relative to other texts in your field . . .

What are the strengths and weaknesses of this?

Am I prepared to accept this position? If so, why? If not, why not?

Does the author have any biases or make any assumptions?

What evidence is the author using – and how reliable is it?

What is the basis for the author's argument? Is it logical and why?

Applying it to your reading . . .

Generate a list of questions

relevant for the kind of resource . . .

What is the research question?

What was the main finding?

Have the findings been honestly / reliably reported?

What methodology was used and why?

Was that a suitable methodology for this question?

How many participants were there?

What sampling method was used?

Are the discussion and conclusion soundly based on the findings

– or do they go too far?

How do these findings relate to other research studies in the field?

Applying it to your reading . . .

Ask Questions about	For Example
your purpose	why?
the context of the text	why written? where? when? who? how relevant?
the structure of the text	Do the parts fit together logically? Is there a clear argument?
the arguments	are they fair? do they leave out perspectives of certain groups?
the evidence used	Is evidence given to support the point of view? is the evidence from an authority in this field? is the evidence evaluated from different perspectives?
the language used	Is the language coloured to present some things as more positive than others? Are claims attributed clearly to specific sources?

Applying it to your reading . . .

So, your goal is not simply to absorb information . . .

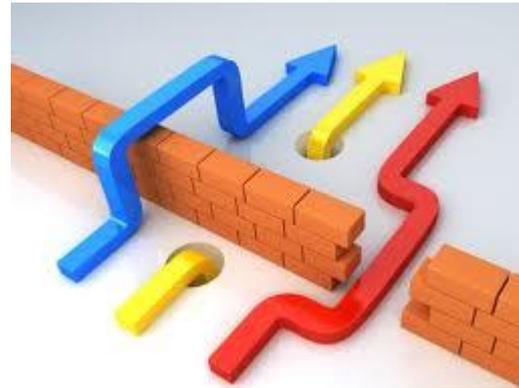
. . . but to respond to it, *critically*.

Applying it to your writing . . .

- **Read critically.**
- **Be fair.** Take into account accepted standards of judgment used in the particular discipline or field.
- **Use evidence** taken from sources considered authoritative in your field.
- **Consider viewpoints** from a range of perspectives (e.g. pro or con, male and female, different socioeconomic and ethnic groups).
- **Use inclusive language** (e.g. non gender specific, non absolute terms such as 'often' and 'could be' rather than 'always' and 'is')

Applying it to your writing . . .

When preparing:



- Unpack the assignment question
 - Generate as many related questions as you can.
- Work out what sort of **critical thinking** will be involved
 - comparing?
 - problem solving?
 - looking for cause and effect?
 - evaluating?
- Think about **why** this essay topic is worth writing about
 - What makes it particularly significant for our context?
 - What makes it relevant for our context?

Applying it to your writing. . .

When writing:

Don't just cite what writers say. Avoid being a data collector.

Be an investigator and a thinker:

- compare and contrast ideas
- identify connections between things
- synthesise ideas – link them together to form bigger ones
- identify similarities and differences
- uncover cause and effect
- point out problems and identify solutions
- evaluate theories by applying them to practice
- interpret practices by using theories to explain them
- provide insights
- provoke the reader's thinking

Applying it to your writing. . .

When writing:

Be responsible for the claims you make.

- Look at both sides of any argument – ***be balanced.***
- Consider both the pros and the cons for all ideas - ***be thorough.***
- Support all claims with ***evidence*** and ***logical argument*** .
- Use examples and illustrative points, when needed – ***be clear.***

Differences between disciplines

Example: thinking like a geologist

Geologists typically:

- **categorise** rocks and land formations
- **explain** how they evolved
- **predict** what can be found in similar circumstances

Differences between disciplines

Science is often concerned with *interpreting* findings within a framework: *describing*, *explaining*, *predicting*, and identifying *cause and effect*.

Management is often concerned with identifying *problems and solutions*, relating *theories to practice*, and making *comparisons and contrasts*.

IT is often concerned with *analysing* complex situations, breaking them down into component parts.

Literature and History are often concerned with *making claims* and supporting them with texts, usually in the light of a particular framework of analysis (e.g. feminism, postmodernism etc.).

Critical thinking practice

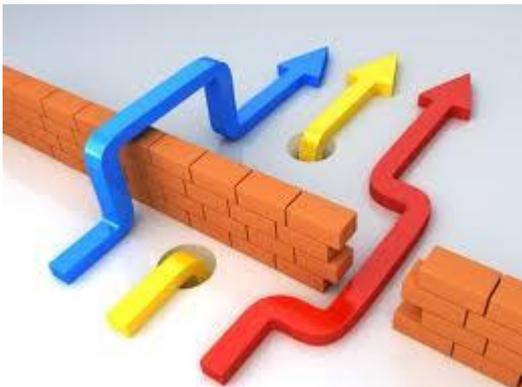
Coles Myer strives to minimise its environmental impact in terms of use of energy, recycling, packaging and waste. For example, Coles Myer has adapted its processes to behave ethically about the environment by 'actively phasing out the single use of plastic bags by customers' at Coles Supermarkets (Davidson & Griffin, 2006, p. 110). It has shown that an active role in Corporate Social Responsibility can be achieved and has accomplished this through ethical strategic leadership. Executives have a strong influence over employees in terms of ethical behaviour. Davidson and Griffin, (2006, p.106) state that this executive influence must be used to 'establish a social context within which ethical behaviour becomes a clear and compelling organisational norm and in which people act ethically as a matter of routine'.

What is the basis for the author's argument?

Is it logical and why?

Displaying critical thinking in indirect and subtle ways

It is important to remember that critical writing does not have to necessarily challenge an entire perspective or try to set up an entirely alternative perspective. It is possible to give your marker evidence that you are aware of different perspectives in quite subtle, but very powerful, ways.



Critical thinking practice

“The professional role and status of pharmacists is under threat.” Discuss.

While these factors have led to a fear that the professional role and status of pharmacists may be under threat, this view does not take into account the importance of consumers' support for pharmacy. Evidence for strong public appreciation for the role of the pharmacist can be found in John Varnish's study (2003) on the public's perceptions of pharmacy as a profession. Although some problems exist in making generalisations from the limited range of pharmacy practices studied, it presents strong evidence that pharmacy is seen by consumers to fulfill the criteria necessary for an occupation to be seen as a profession.



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