
CRITICAL THINKING - GETTING STARTED

Other Handouts:

- Analysing an Essay Question
- Improve Your Reading of Academic Texts

What is critical thinking?

Frequently asked questions by first year university students are:

- Why is critical thinking emphasised at university?
- How does it differ from the thinking I have done all my life?
- How do I know if I am thinking critically or not?

The following definitions¹ include a few pointers to help you define critical thinking:

Chaffee, John. The thinker's guide to college success. "The word critical comes from the Greek word kritikos, which means to question, to make sense of, to be able to analyze. It is by questioning, making sense of things and people, and analyzing that we examine our thinking and the thinking of others. These activities aid us in reaching the best possible conclusions and decisions." p. 32

Chaffee, John. Thinking critically. "An active, purposeful, organized cognitive process we use to carefully examine our thinking and the thinking of others, in order to clarify and improve our understanding." p. 48

Ennis, Robert H. Critical thinking. "Critical thinking is a process, the goal of which is to make reasonable decisions about what to believe and what to do." p. xvii

Epstein, Richard L. Critical thinking. "Critical thinking is evaluating whether we should be convinced that some claim is true or some argument is good, as well as formulating good arguments." p. 5

All of this is interesting, but when I am asked to think critically about a topic at university how should I begin?

¹ 'Critical Thinking Across the Curriculum', <http://planet.tvi.cc.nm.us/ctac/definect.htm> (Accessed 28, April 2003).

Follow the eight step model to critical thinking²

Step 1	Describe - state what it is
Step 2	Analyse - break it down into its component parts
Step 3	Name the parts
Step 4	Look at the relationships between the parts
Step 5	What are the possible problems/issues with these relationships?
Step 6	Evaluate the 'problems'
Step 7	Imagine an alternative
Step 8	Apply steps 1-7 to the alternative.

Step 1: Describe - state what it is

- What is it.....?
- What is it not....?
- What is an example of it....?
- Where is it.....?
- Where does it not appear....?
- In what context is it found...?
- How does it act....?
- When does it act in this manner...?

Step 2: Analyse - break it down into its component parts

- The term analysis means to break something down to its constituent parts.
- A rich and detailed description aids analysis as it becomes easier to distinguish and to differentiate between parts or sections of concepts, theories etc.

Step 3: Name the various parts

- What are the different parts...?
- How many different parts are there ...?
- How is this part similar and /or different to another part...?
- What is an example of the different parts...?
- Where are each of the parts generally found within the whole object/phenomena...?

Step 4: Identify the relationship between parts, and between parts and the whole

- How do the different parts interact with each other ...?
- How are the different parts related to the whole...?
- Is there a causal relationship between any of the parts...?
- Is there a temporal sequence between any of the parts...?
- What is the relationship between the whole object/phenomenon and its context...?

² Julia Hobson's critical thinking webpage http://www.tlc.murdoch.edu.au/slearn/resource/crit_think/index.html

Step 5: Look for possible problems with these relationships

- What are the strengths and weaknesses of the different parts...?
- How do these strengths and weaknesses impact on the whole...?
- How do these strengths and weaknesses impact on the context of the whole object/phenomenon...?
- Why are relationships structured in this way...?
- How could relationships be structured differently...?

Step 6: Evaluate the problems

- What conclusions can you draw about...?
- What evidence supports this...?
- What potential solutions are there to problems
- What evidence supports this...?
- Is it an important issue?
- Why do you think that?

Step 7: Imagine an alternative

- How could it be different?
- What would it look like if it was different?

Step 8: Apply steps 1-7 to the alternative

Example:

Below is a simple example of the eight step model applied to a pen.

Step 1: Describe - state what it is

A pen is a writing device, known as a ball point and invented in the 20th century.

Step 2: Analyse - break it down into its component parts

The pen is made mainly from plastic. It contains ink and this comes out of a small pointed metal end.

Step 3: Name the various parts

There is an external sheath that is held in my hand and which has a name printed on it of the company that produced this pen. An inner tube holds the ink that flows to the writing point. There is a stopper at the other end that holds the inner tube in place.

Step 4: Identify the relationship between parts, and between parts and the whole

The ink held within the inner tube is slowly being used up as I write. Therefore, the pen has a limited span of use. The stopper at the other end is extremely difficult to remove without destroying the outer plastic tube.

Step 5: Look for possible problems with these relationships

The relationship between the parts is such that it would be extremely difficult to refill the ink tube once it has been used up.

Step 6: Evaluate the problems

The structure of the pen is such that once the ink has gone it will be necessary to buy a new pen. This could be difficult if I have little money, or if I cannot get to a shop that sells pens. Also where and how do I throw the pen away without it being detrimental to the environment? Is the constant production of plastic pens a good use of our resources? What industrial wastes are created in the production of plastic pens? Is my buying this pen contributing to the exploitation of impoverished people working in terrible conditions in factories?

Step 7: Imagine an alternative

Could I buy a pen that is refillable, 'environmentally friendly', made by a skilled craftsman, is affordable to a struggling student and that will possibly last a lifetime?

Step 8: Describe such a pen and begin the seven steps again

A fountain pen that is refillable from an ink bottle.

Tip!

Another way to organize these eight steps is to use the following categories.

What?	How?	Why?	Why Not?
Background Context Parts	Relationships of parts, to each other and to the whole.	The meaning of it: Why are the relationships between the parts structured that way?	Alternatives: How could it be different? What would it look like if it was different?