Critical Thinking
VALUE MaP
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Key terms for critical thinking

- **Proposition**: A statement of what an author wishes to prove
- **Argument**: The overall case made by an author (including the proposition) plus the explanation as to why the proposition is true
- **Line of reasoning**: The way in which this position is logically explored, justified and ‘unfolded’
- **Assertions**: Statements that need further evidence before they can be accepted
- **Premises**: Initial positions/points of view that precede/justify the argument itself
- **False premises**: Initial arguments, and arguments, based on generalisations or insufficient evidence
An ordinary statement...

- Student A, who lives along the Old Dover Road, comes into a 9.00 a.m. lecture 15 minutes late. As he sits down next to his friend, Student B, he mutters, to explain his lateness...

- “Traffic was terrible across the Wincheap Roundabout, and along Rheims Way!”

- What do you make of this statement?
The critical thinking approach

- What’s the evidence for heavy traffic?
- How heavy?
- Heavy compared to previous day’s?
- What is ‘normal’ traffic flow? How is that measured?
- Genuine reason? Unexpected RTA or…
- Genuine RTA which compounded problems of a late start? or…
- Just late because he’s disorganised!?  
- Forgot lecture?
The critical thinking approach

- Ashamed to admit genuine reason for lateness!
- Is disorganised – that’s the basic problem! – but does not realise this! Think’s the problem is not him...genuinely believes this! or...
- A is a liar!
- Came via Sturry Road; he’s just late in the mornings!
- Working on an assignment, forgot the time or...
- Roadworks in Wincheap have created a problem; this was not picked up by Radio Kent...A was quite innocent of deception/self-deception etc.!
The big 4 questions

- We can see that a simple statement, from a critical thinking perspective, can create a multitude of possibilities! Not least because it’s an unquantified, unverified assertion…
- 1. WHO is making the statement? What assumptions and preconceptions do they make? Bias? Motivation, conscious or unconscious?
- 2. WHAT is being said?
The big 4 questions

- **HOW** is this evidenced? What kind of evidence? Anecdotal? Verifiable? Statistical? How much evidence? What’s the choice of evidence? What evidence has not been included? Deliberately or accidentally?

- **HOW** does this statement develop an argument? What are the consequences of the statement? Is it ‘true’ across time, or simply one instance? Can we draw any generally viable and applicable conclusions?
The critical thinking approach

- Whilst our light-hearted ‘case-study’ does not involve academic evidence or arguments, when scrutinised it does raise the Big 4 questions of critical thinking!
- And the way we might ‘apply’ the Big 4 to the case-study mirrors the kind of interrogative, probing, approach we should take to genuine academic evidence or arguments…
What’s the alternative?

- So if Student A wanted to give a genuine reason for his lateness, he would have to conduct a proper piece of academic research.
- Properly conducted academic research would take into consideration ‘the big 4 questions’...
Academic research

- Proper academic research would follow the ‘rules’ of critical thinking.
- We might say that academic research = applied critical thinking
- It is peer–reviewed
- It uses multiple peer–reviewed sources
- It’s evidence is always transparent…
- And can always be traced (correct referencing + bibliography + reference list in place)
Academic research

- Academic research follows a careful research methodology, not a random sampling of data, facts, observations etc.
- It is schematic and structured
- It starts with a clear thesis statement which is the driver for the research
- It sets out to prove or demonstrate something, rather than make a casual observation
- And, finally, it will end with an implicit or explicit course of action: reach some form of conclusion
So what is critical thinking?

- Critical thinking can be seen as a type of constructive scepticism.
- Critical thinking involves detaching ourselves from instant agreement/disagreement, and exploring the reasons *why* we accept/reject an ‘argument’; *why* we should raise qualifications and *what* sort of qualifications these should be.
- It involves an analytical *evaluation* of evidence we use (in writing); or read (in research).
What is critical thinking?

- When you think critically you...
  - Actively seek all sides of an argument
  - Test the soundness of the claims made
  - Test the soundness of the evidence used to support the claims
  - Weigh up the evidence – for and against
What is critical thinking?

- Stand back – identify bias
- Examine from different perspectives
- Check accuracy
- Check logic
- Identify flaws in reasoning
- Ask questions/be consciously problematic!
What is critical thinking?

- We can simplify the process by dividing it into 4 clear stages
- 1. What are the prior assumptions, contextual information and premises that precede the ‘argument’?
  - Note these may not always be apparent in the text because they are assumed, taken for granted
- 2. How is the argument then developed?
What is critical thinking?

- 3. What is the evidence provided to support the ‘argument’, and how can it be evaluated?
- 4. What is the conclusion reached, and how does the preceding discussion, information and evidence (logically) support it?
- Put simply: What’s the prior position; what’s the main point; where’s the weak/strong evidence; what’s the conclusion!
‘Being critical’: academic writing

- All academic prose includes an element of descriptive writing
- Descriptive writing:
  - States what happens
  - Reports ‘facts’/results
  - Summarises books
  - Outlines theories
  - Explains ideas
  - Gives details
  - Uses quotations
  - Gives information etc.
‘Being critical’: academic writing

- At times, this is very necessary!
- But do not EXTEND the element of descriptive writing BEYOND the necessary...
- Good academic prose evolves into analytical writing...
‘Being critical’: analytical writing

- Analytical writing –
  - Identifies key issues
  - Evaluates strengths
  - Considers alternatives
  - Gives reasons for choices
  - Looks for links/causes
  - Challenges (logic, data etc.)
  - Evaluates evidence used
  - Thinks carefully about evidence
Analytical writing

- Gives a clear and confident account that doesn’t merely accept what’s been said before
- Gives a balanced account of the pros and cons of ideas
- Avoids unsubstantiated assertions
- Uses paragraphs to develop and extend ideas
- Ensures that all paragraphs include appropriate evidence
- Gives a clear and precise account of relevant evidence and arguments
Analytical writing

- Gives reasons for conclusions
- Always recognises limitations (is not dogmatic: “tends to show…”, “suggests”…)
- Avoids simplistic conclusions
- Accepts and includes qualifications…but…
- In the end, is emphatic and fair about its conclusions and arguments!
‘Being critical’: academic reading

- Ask the obvious questions...
- Where’s the evidence to support this idea/theory
  - Will the evidence bear the weight placed upon it
  - What is the author omitting to tell me?
  - How might somebody with a different perspective interpret the same evidence in a different way
- Ask the ‘w’ questions
  - Who, what, why, where, when, how & who says
- Check for assertions
‘Being critical’: academic reading

- Check for scholarly reliability of ideas/material/evidence
- Would other scholars accept this point of view?
- Has this author any reason to be biased?
- What is this author taking for granted?
  - What do they think is ‘obvious’
  - ‘Obvious’ things are often open to challenge!
GOOD LUCK…

…For developing your critical thinking skills!

- The Student Learning Advisory Service
- www.kent.ac.uk/uelt/learning