

Critical Analysis – So what does that REALLY mean?



The words 'critically analyse' can cause panic in students when they first turn over their examination paper or are handed their assignment questions. Why? Because they don't know what 'critical analysis' means, let alone how to do it.

Yet question papers frequently include this phrase. Isn't it about time you learnt how to 'critically analyse', so that when you are next presented with the task you can approach it appropriately and confidently?

Read on..!

You Will Learn...

- What is expected of you when you are asked to be critically analytical
- To spot the difference between texts that have been written descriptively and analytically
- To apply the 6 Rules of critical analysis when you work

The Plan...

1. Critical Analysis – What Is It?
2. Critical vs. Descriptive
3. Telling the Approaches apart
4. How Do You Get to Be a Critical Writer?
5. What It Means When You Write an Assignment or Dissertation...The 6 Rules!

1. Critical Analysis – What Is It?

How would you define critical analysis? What sorts of thinking activities does it involve? Write down your thoughts in the space provided below.

Critical Analysis?



A good way of developing your understanding of any phrase is to break it into its constituent words and then consider different dictionary definitions of them.

So:

- **critical**

- 'marked by a tendency to find and call attention to errors and flaws'
- 'characterized by careful evaluation and judgement'

<http://wordnet.princeton.edu/perl/webwn>

- 'occupied with or skilled in criticism'
- 'involving skillful judgement as to truth, merit, etc.' (note that 'skillful' is an Americanism – in British English, this word is spelt 'skilful')

<http://dictionary.reference.com/browse/critical>

- **analysis**

- 'an investigation of the component parts of a whole and their relations in making up the whole'

<http://wordnet.princeton.edu/perl/webwn>

- 'the separating of any material or abstract entity into its constituent elements'
- 'this process as a method of studying the nature of something or of determining its essential features and their relations: *the grammatical analysis of a sentence*'

<http://dictionary.reference.com/browse/critical>

Sometimes this process involves looking up the definitions of further words. For instance, the following definition of 'critical' – 'occupied or skilled in criticism' – is only useful if you are clear what is meant by 'criticism':

- 'a serious examination and judgement of something'

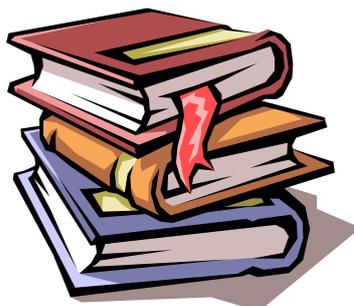
<http://wordnet.princeton.edu/perl/webwn>

- 'the act of passing judgement as to the merits of anything'

- 'the act or art of analyzing and evaluating or judging the quality of a literary or artistic work, musical performance, art exhibit, dramatic production, etc.'

<http://dictionary.reference.com/browse/critical>

Through this process, you will deepen your understanding of what it is you are being asked to do.



So, what is critical analysis? Here's a quotation...

'Critical thinking may be defined as a form of intelligent criticism which helps people to reach independent and justifiable conclusions about their experiences'
(Moran, A.P. (1997) *Managing Your Own Learning at University*. University College, Dublin.)

Critical vs. Descriptive

Ever had an essay returned on which the marker had written 'too descriptive', 'lacks analysis' or 'more critical approach required'? If you have, you're certainly not alone – most students will at some point lose marks because they are not clear how to make their work critically analytical. Worse, they are likely to lose many marks, as the ability to demonstrate critical analysis is the key to achieving the higher grades, even though some descriptive writing will be required in most pieces of work.

Test your understanding of the difference between descriptive and critically analytical approaches by looking at the statements listed below and then writing them in the appropriate column of the chart on the next page.

Critical or Descriptive?
<p>states what happened</p> <p>weights one piece of information against another</p> <p>gives the story so far</p> <p>structures information in order of importance</p> <p>says how to do something</p> <p>notes the methods used</p> <p>identifies whether something is appropriate or suitable</p> <p>explains how something works</p> <p>identifies why the timing is of importance</p>

says when something occurred
 argues a case according to the evidence
 shows the relevance of links between pieces of information
 identifies the significance
 states links between items
 draws conclusions
 lists in any order
 gives information
 indicates why something will work (best)



Descriptive writing...	Critically analytical writing...

Now compare your answers with those in the following chart.

Descriptive writing	Critically analytical writing
states what happened	identifies the significance
gives the story so far	weighs up one piece of information against another
says how to do something	argues a case according to the evidence
notes the methods used	identifies whether something is appropriate or suitable
explains how something works	indicates why something will work (best)
says when something occurred	identifies why the timing is of importance
lists in any order	structures information in order of importance
states links between items	shows the relevance of links between pieces of information
gives information	draws conclusions

Remember: critically analytical writing attempts to –

- get under the surface of a particular situation or problem;
- discover the possible reasons behind it;
- break it down into the various facts and questions of which it essentially consists;
- examine the strengths and weaknesses of different ideas about it, and any evidence relating to it.

Telling the Approaches apart



Below are five examples of writing, some descriptive, others critically analytical. Can you tell which category each falls into?

1. In the West, all life forms are divided into one of two categories: plant or animal. Animals move and take in food. Plants are rooted into the earth in some way and lack locomotion. They photosynthesise their food. Zoologists study animals, and botanists study plants. Bacteria were classified as plants because many kinds of bacteria photosynthesise their food. However, they also have locomotion. Recent research has shown that there is an enormous variety of bacteria. Some are able to survive at extreme temperatures and in the absence of oxygen. Most plants cannot usually survive those conditions. Therefore, even though bacteria photosynthesise, they are not now regarded as plants.

Descriptive or critical? Write your answer here:

2. The difficulty in categorising bacteria was partly based on the assumption that all life forms were divided into two main categories, plants and animals.. Organisms that photosynthesised and lacked mobility were classified as plants; those that had locomotion and ingested food were classified as animals. Bacteria were traditionally categorised as plants because many forms of bacteria photosynthesised their food like plants. However, bacteria also have locomotion, associated with animal life. Genetic research has now shown that there are at least eleven major divisions of bacteria, all of which are more genetically distinct than plants are from animals (Fuhrman *et al.*, 1992). In addition, the minute organisms formerly described as 'bacteria' are now found to consist of several major kingdoms and domains of unicellular and multi-cellular life (bacteria, archaea, eucarya) (Woese, 1994). This research is significant as it has shown that the fundamental division of all life forms into 'plant' or 'animal' was an error, and that plants and animals form only a very small part of a much more diverse range of living organisms.

Descriptive or critical? Write your answer here:

3. Scientists do not agree about the extent to which creativity can be linked to activity in the right hemisphere of the brain. It is known that the biochemistry of the two hemispheres of the brain is different. For example there is more of the neuro-transmitter, norepinephrine, in the right hemisphere than the left (Oke *et al.*, 1978) Norepinephrine is associated with increased alertness to visual stimuli. It has been suggested by Springer and Deutsch (1981) that this may lead to increased right-hemisphere specialisation for visual and spatial perception. However, this link is not yet proven. It is not yet clear whether one hemisphere of the brain can be responsible for any creative task. Moreover, although it might seem reasonable to assume that responsiveness to visual stimulus may be an important factor of creativity, this has also not yet been proved.

Descriptive or critical? Write your answer here:

4. The brain contains millions of neurons. These communicate with each other through electro-chemical activity at the synapses found at the end of each neuron. The chemicals that enable this communication to take place are known as neuro-transmitters. Each neuro-transmitter is associated with different kinds of message. The different messages to the brain influence the way we respond to events that take place in our internal or external world. Some neuro-transmitters are associated with mood swings, with depression, with rapid responses, and so forth.

Descriptive or Critical? Write your answer here:

5. Bowlby's Attachment Theory argues that child development is affected by the closeness of the bond between a mother and its child. Bowlby claimed that even short spells away from the mother during infancy could have a profound effect upon a person later in life. This became known as 'maternal deprivation theory'. According to this theory, the relationship with the mother during an early 'critical period' gives the developing child an 'internal working model'. This model then forms the foundation of all future relationships.

Descriptive or critical? Write your answer here:

Now look over the page to see whether you were right.

1. This is mainly descriptive writing. The statements are not linked and ordered in such a way that they build towards a conclusion.

2. Critical. It gives a reasoned account of the difficulties in classifying bacteria. It draws on research and evaluates the research's significance.

3. This is critically analytical. It evaluates the evidence for the theory. It draws out current findings that may have implications in the long term. It questions 'reasonable assumptions'.

4. This is descriptive.

5. This is descriptive. It describes Bowlby's theories but does not critically evaluate them.

How Do You Get to be a Critical Writer?



In order to become critical writers, we need to develop skills of critical reading and thinking.

Critical Reading

This involves being far more attentive to detail when reading than you would be ordinarily. Read each sentence of key parts of the text slowly and carefully, asking yourself:

- what are the author's theoretical assumptions (in other words, what is the author taking for granted about this subject or issue)?
- is the author's reasoning valid/consistent (in other words, is his/her argument logical, does it make sense)?
- why has the author chosen to use these particular words, and this particular style of writing (what effect is the author attempting to create in the reader's mind, and why)?
- are there alternative arguments/perspectives to those being presented, and what are their comparative strengths and weaknesses?
- how authoritative/current are the sources being used to substantiate the argument?
- how does the material relate to the questions/issues you will be addressing in your own writing?

Critical Thinking

Critical thinking involves using your imagination, thinking of examples and counter-examples relating to the issue under discussion.

For instance, in Plato's *Republic*, the chief character, Socrates, asks whether it is wrong to lie. When the respondent confirms that in his view lying is indeed wrong, Socrates presents the following scenario. Suppose that you have borrowed some weapons from a friend who subsequently has gone insane. He arrives at your door asking for the weapons back? Would it be wrong to lie in these circumstances, to tell him that you have misplaced the weapons, given that in possession of them he may be a danger to himself and others? Clearly it would not be wrong; on the contrary, it would be the morally correct action to take in such a situation. Socrates uses the hypothetical case to demonstrate the circumstantial dependence of seemingly self-evident moral truths, and the difficulty of formulating absolute statements.

This is an approach we can all adopt when engaging in academic discussion – to imagine situations or sets of circumstances in which the truth or falsity of particular statements or propositions might be confirmed. As good a start as any to the process of critical thinking is the question 'But what if...?'.

What It Means When You Write an Assignment or Dissertation...the 6 Rules!



Here are six rules you can follow when preparing written work.

1. Identify the focus of the assignment – it is crucial that you read assignment questions or briefs closely and thoughtfully, in order to ensure that your work clearly addresses the requirements of assessment.
2. Identify your own point of view – arrive after reflection at a judgement regarding your own view of the issue to be discussed.
3. Consider how you will communicate that view to your readers persuasively – how might you present your argument with maximum impact?
4. Find the proof – remember that you will need to substantiate your argument throughout with reference to relevant research.
5. Engage in debate – as well as presenting different perspectives, consider their comparative strengths and weaknesses. Which perspective is the most convincing, and why?
6. Structure your argument – always remember to organise your material so that it flows logically.