



Understanding Critical Thinking

What is Critical Thinking?

Critical thinking is the ability to question what we read, hear and/or see and to not just accept what we are told. Therefore, we think about the subject objectively. This involves researching it, analysing all the arguments and weighing up the evidence so that you can express your own opinion, which is backed up by your evidence/sources.

Critical thinking is something that is used across all subjects. For example, just as in any other discipline, there are differences of opinion, there is conflicting evidence and there is uncertainty, which is a key part of the scientific process. Therefore you need to develop these skills to assess the uncertainty for yourself, to assess the evidence and the arguments given by different researchers in the field and to come to your own understanding and conclusions about who's point of view you agree with and why.

Why is it important?

Critical thinking is an important skill in learning and in life. It forms the basis of our education at school/college and especially at university, so you may find that your grades may improve with more use of critical thinking in your work.

For more information and to find activities to help you in this area, go to:

<http://library.leeds.ac.uk/skills-critical-thinking>

Key Steps in Thinking Critically

There are 6 common steps of thinking critically about sources:

Describing – by clearly defining what you are talking about, what specifically was involved, where it took place and under what circumstances.

Reflecting – reconsidering a topic by taking into account new information or a new experience, or considering other viewpoints.

Analysing – examining and then explaining how something is, including comparing and contrasting different elements and understanding relationships to your subject/topic.

Critiquing – identifying and examining weaknesses in arguments, as well as acknowledging its strengths. It's important to think of critiquing as 'neutral' and not negative.

Reasoning – using methods such as cause and effect to demonstrate logical thinking, as well as presenting evidence that either refutes or proves an argument.

Evaluating – can include commenting on the degrees of success and failure of something, or the value of something

All of this information and more can be found on the Skills@Library website: <http://library.leeds.ac.uk/skills>

Skills@Library is a free, online source for skills development provided by the University of Leeds



The Critical Thinking Model

There are many different ways to approach critical thinking, the most common is to use the 'Critical Thinking Model' by Learning Development© (University of Plymouth, 2006). There are 3 levels to the model, starting with the most basic questions to ask of your sources and progressing to the most advanced level of critical thinking:

First Level: Description

This involves asking questions such as: What?, Where?, Who? and When?

Second Level: Analysis

This involves asking questions such as: Why?, How? and What if?

Third Level: Evaluation

This involves asking questions such as: So What? and What Next?

Although the idea is to progress from Level 1 to Level 3, this does not always happen in a linear fashion. Sometimes you may find yourself asking questions in Level 2 that lead back to Level 1, almost like a mini loop. This is completely normal. Sometimes researchers go through several of these loops at all three levels to arrive at their final conclusions.

You can find this guide and other materials on Critical Thinking by going to our Skills@Library site: <http://library.leeds.ac.uk/skills-critical-thinking>

Critical Reading

Reading critically is about putting critical thinking into practice. It involves not accepting what you read, but questioning it. For example, questioning its purpose, its arguments, the quality of its evidence and all of the other elements described in previous sections.

Here are some things to keep in mind when reading critically:

Space – make sure to have a good study area that is beneficial to working in. This might be in a quiet space at the local library or in your room or in your school/college.

Questions – read the text intensively, taking your time to understand what you are reading and to ask questions (who, what, where, why, when, etc.) as you read

Note-taking – there are many different types of note-taking, so do what works best for you, but make sure to also keep track of your sources for your referencing.

Most importantly: **Critical reading takes time**. To read critically is to read a text intensively, ask questions and take notes all at the same time. For some people and/or subjects this can take a single 1-hour session or it can take several sessions over a long period of time.

For more information on reading critically and note-taking have a look at:

- Reading with Understanding e-workshop: <http://library.leeds.ac.uk/tutorials/activities/reading/workshop/>
- Note Taking: <http://library.leeds.ac.uk/skills-note-taking>
- Paraphrasing and Summarising: <http://library.leeds.ac.uk/skills-summarising>