

Critical Thinking and Reflection – Slide Transcripts

Slide One – Introduction

This resource is designed to help you develop your critical thinking and reflection skills. Click on the navigation options on the slides or the menu to the left to move through the resource. There are transcripts available for the video clips which can also be accessed from the menu to the left.

Slide Two – What is Critical Thinking?

So what exactly is critical thinking? By questioning you can learn to think critically: by asking questions such as what, who, where, when, how, why, what if, what next and so what? - you will start to think more carefully about information that you come across in your studies.

Slide Three – Critical Thinking: The Steps

By questioning, you will find that you are carrying out a number of functions that are vital to scientific, academic and social life. Click on each of the buttons to find out more

For example:

Describing ... defining clearly what it is you are talking about, saying exactly what is involved, where it takes place, or under what circumstances

Analysing examining and explaining how parts fit into a whole; comparing and contrasting different elements; understanding relationships

Reasoning demonstrating logical thinking about causes and effects; presenting evidence to provide sound arguments and refuting unsound ones

Reflecting reconsidering a topic to take account of new information or experience in practice; considering other viewpoints; recognising underlying principles;

Criticising or critiquing ... identifying and examining faults and weaknesses in arguments, as well as acknowledging strengths and merits

And finally - Evaluating commenting on degrees of success or failure, or judging the implications, or the ultimate use or value of something.

Slide Four – The CT Model: An Overview

In this video clip John Hilsdon provides an overview of the critical thinking model, an extension of the framework described in the previous slide. Click on the play button, situated below below the video image to watch the clip.

I'm going to tell you a little about the model we use to help you develop critical thinking. Critical thinking is about asking and answering questions to help you make sense of something. We represent this with a circle where we place the topic or issue that you are dealing with in the centre and then bombard it with questions: what, who, when and where? If you start with the question what, it will help you define what you are talking about and in terms of structuring information it is important to give an introduction, some context and background before you get into the meat of whatever it is that you want to do in the analysis. So in this early part, in the description, you might want to talk about when something happened, who was involved and where it occurred.

Once you've got through that stage, the next set of questions are how and why. Now, you'll notice that we've segmented these questions off from the first set and that is because they are quite different from the first four in terms of what you achieve when you attempt to answer them. When you attempt to answer the first question, what, then you come up with some kind of definition. With when you get a kind of chronology and with where you get some kind of geographical information. But if we ask how something happens or why it happens, we need to go a bit deeper than these purely descriptive questions started off. So, we say that the questions in the first segment help us to do descriptive work or achieve the function of description whereas the questions in the second segment, how and why, encourage us to go more deeply into the subject and they are fulfilling the section that we call analysis. So, how does something happen? You focus on the processes, the procedures and the methods and why focuses on looking at the causes and maybe referring to theories and explain that particular phenomenon that you are looking at.

So of course, that leaves one further section, on further segment. The next segment contains the questions: what if, so what and what next. In terms of what function these questions fulfil: we said the first lot were to do with description, the second lot were to do with analysis, so the third are to do with evaluating or making judgements. They would logically come at the end of any essay you might do.

So here you have it in simple form- the critical thinking model which takes you through description, analysis and evaluation and provides a framework for you to structure your essay or your assignment or a presentation you might be giving about any particular topic.

Slide 5 – Reinforcing the Critical Thinking Model

You can now use this model to develop your critical thinking.

First, identify the topic - this can be your essay title, a subtopic, or a point you might want to explore in a particular section or paragraph. Write keywords in the middle of a sheet of paper, or a blank document screen.

Try to answer the questions on the diagram starting with the 'What?' questions. Your answers may become part of an introduction, identifying issues and defining your terms.

Under 'Who?', 'When?' and 'Where?', give some descriptive background information – this will provide contextual, or scene-setting, material – this is also useful for an introductory section.

'How?' requires consideration of the ways that something operates or works. Now you are moving the function of your work from being descriptive to being analytical.

'Why?' takes you deeper into analytical territory. It gets you to find reasons and logical explanations or causes. Think about all the possible questions to do with 'why'. Your considered answers to such questions are likely to emerge over time from your reading and study.

Asking 'What if?' moves you into a more evaluative phase of your thinking. It helps you to consider and test out mentally, and in your writing, the possible implications or results of a particular action. This question is also useful for considering predictive work done by others, or engaging in forecasting of your own.

'So what?' is really the key question for evaluation. It gets you thinking about value or values. It is also about discriminating between the most and the less important factors in any situation. It also helps you to think through and justify your own position, and discuss its implications.

'What next?' might refer to recommendations and predictions that your argument has brought to light. It leads to more specific actions and planning for action that might be necessary in certain kinds of assignments such as a project or business reports.

Slide 6 - Using the CT Model in your study

This section considers the critical questions and provides examples of ways in which they can be addressed.

Getting it down on paper- The critical thinking model, which is designed by the team here at the University of Plymouth, is available from the resources materials from a link on this site. It is an extremely useful tool to use with your studies. It has a lot of different uses, for instance if you are good at procrastinating like I am and many people are, doing anything rather than getting on with the assignment then this is the tool to help you get over those moments. The first thing you need to do is to read your question to be sure that you know what your assignment is about, what is it asking you to do, what is your lecturer asking you to write about and what to say if it is a presentation?

Then, you can use the critical thinking model- you have a series of questions on the model. What we suggest you do is have one piece of blank paper here and another one here (both in front of you)

and you go through those questions with your topic in mind and you write down everything you know about the subject on one piece of paper as you go through these questions there will be lots of questions that raise in your mind such as: "I don't actually know the answer to that" or "I'll have to go and do some more research on that" and when those questions come up write them down on your other piece of paper.

Go through all the questions in the critical thinking model, the what, when, where, who questions, the how and why questions and the so what, what if and what next questions, getting into the deeper analysis and doing some critical thinking about your subject before finally evaluating your subject, what it is you have thought about.

On one piece of paper then, you have a very rough outline of what you are going to write about, what you know now and on the other you have a list of questions. If you write some key words next to those questions you are now ready to go to the library and start doing some research.

When you have done your research come back and go through the questions again with your two pieces of paper and this time you'll hopefully have a lot more on the paper where you write what you know and a lot less on the piece with questions on. When you have done this you have a framework for any assignment.

Using the CT model to reflect- If you've been asked to write a reflective piece of writing: a journal, a learning log or perhaps a reflective assignment then you might use questions such as the following to really help you understand the issues that you need to think about for your work.

What was a challenge for me and why? Then: what kind of place does this occur in and why? Then: Who's affected, how are they affected and why are they affected in this way? When did it happen and what is significant about when it happened? How does it manifest, how does it show itself? How does it affect me and others around me such as colleagues and service users? Why does it happen in a particular way? Why doesn't it happen in any other way? How have I addressed this in the past and on reflection how might I address it better in the future? Why would I address it in a different way and what if I didn't address it at all? What's the real underlying problem? How might I do it? And so on.

Slide 7 – The Critical Thinking Cycle

This model can now be used to map a possible structure for a whole assignment or for just one minicycle within it; for example, a section, paragraph, elaborated point. This sequence of questions within the 'description, analysis, evaluation' framework can help you develop every part of your work. The diagram below shows how, within the overall structure, each point can benefit from the same questioning approach.

Another way to think of this is like a thread of an argument within a larger tapestry which is woven to show a bigger picture – or several arguments. This is because, just as the whole assignment needs

the basic structure of introduction, main body and conclusion, so does each substantial paragraph or section. A more realistic model for an assignment could therefore look something like this

Slide 8 – Dos and Don'ts

Here are some critical thinking dos and don'ts

Slide 9 – Tips

Here are some tips for writing a critical essay

Slide 10 - A Critical Thinking and Reflection Activity

Hello, I'm going to talk to you about reflective writing and using a particular piece of reflective writing to show you how it's done, very often students get quite worried about the thought of having to do reflective writing so I think it is a really good idea to give you an example that you can actually read for yourselves and then think about the extent to which the author has actually reflected successfully.

The piece of writing I would advise you to look at is called "The Park" and I use this piece with my own criminology students in order to show them how to develop this skill and the beauty of "The Park" is that the author of it gives four different versions of the same experience but each version is slightly more reflective. So the first version is somewhat descriptive, just saying what happened and when but not really going into any details into how the author felt about what happened and as the author goes through each version, the final version, as well as describing what happened the author also talks about how it made her feel.

The actual point of the story is that a young boy who was a bully was taken ill in a park and rather than step in the author of the piece didn't because he had been bullying one of her own children. This obviously created a huge dilemma although that wasn't apparent in the first version you can really see when the fourth version is really detailed.

The other beauty of "The Park" is that the author of that piece of writing provides a set of responses to each version so that you can compare your own thinking about the reflective writing to the thoughts of the author.

Slide 11 - The Student Voice

Undergraduate Student- Lucia- Hi, I'm Lucia, I come from China and I'm a final year student at the University of Plymouth and I'm doing International Finance.

Woman- How often do your lecturers ask you to think about things critically, or to reflect?

Lucia- Actually I'm doing the final year so I think Critical Analysis is very important for a final year student.

Woman- What difficulties does it present to you when your lecturers ask you to think critically?

Lucia- I think I do have some problems because for international students, the way of thinking in our native countries is totally different and the form of our education system is different especially as critical analysis is English thinking, not Chinese thinking. So, as a Chinese student it is quite a new idea for me to think critically, so I had to do lots of research about this before the teacher asked me some question, the language being another problem definitely. I believe we can come through these problems however.

Postgraduate Student- Reflection has been an important part of my progression throughout my undergraduate, masters and now PHD level. The skills needed to systematically identify and analyse experiences in order to determine where improvements can be made were initially difficult but have improved as my critical thinking developed.

Asking questions such as: which, why, what are the implications and how can the improvements be achieved?, enables you to develop logical structure to any assignment of work. Now beginning my PHD this has proved vital because for part of the process you have to create a research log which requires an annual audit of skills along with a periodic review of your progress, what amount of any progress have you made and any difficulties you have encountered and how these have been overcome. The key is to keep questioning, the more you do so, the easier it becomes and before you know it, it will be part of your natural process and you will wonder how you ever analysed anything before

Slide 12 – Frequently Asked Questions

How do I become a critical thinker? - Becoming a critical thinker sounds like a real challenge doesn't it? I think the crucial thing to remember is that critical thinking is not accepting things at face value, it means being able to ask questions, so rather than accepting things as fact you say: how do I know that, where's the evidence for that? So being a Critical thinker means asking questions about every stage of your work, so it means asking questions about the facts, the theories and your own conclusions that you come to.

What does synthesis mean? - Students are sometimes asked to do a synthesis and it's a confusing word but it really just means: a bringing together, facts, material and conclusions from your study from perhaps different contexts. So, by way of an example, if you had, say, a psychological study that came to some conclusions about how men think and another study came to conclusions about how women think then if you took the findings of the two studies then combined them to see what fitted both groups, men and women then a synthesis would be you bringing those two things together to say something about men and women, about human beings or all adults, so that would be a synthesis.

What is the difference between analysis and Critical Analysis? – Going from analysis to a critical analysis requires, again, being questioning, so for example, if you took the situation and analysed it,

trying to explain that situation, if you simply took the first explanation and presented that as your analysis, then that would be OK but in order to do critical analysis then you would need to subject that to some more questions.

So, for example, some say that boys do not do as well at school as girls because they are more active than girls and like to do more practical things, whereas girls are better at sitting and concentrating, but if you're going to do a critical analysis then you might ask questions about that, ask, "how do we know that to be the case, what circumstances might cause that?" and it may mean you have to do some further studies to maybe add some qualification to that. So a critical analysis is one that questions and questions again rather than just accepting the first explanation that comes along.

Can I give my own opinion? – Your lay opinion, even if it is a professional opinion and you have experience in the field counts for very little in academic writing but it is a very good starting point, and your well informed, well researched, critically analysed, thoroughly referenced, logically constructed and well substantiated opinion counts for almost everything.

How do I structure my work? – Structure is something that sounds very simple but is actually quite difficult to achieve, as well as having a good introduction, a good conclusion, having a good report style for your assignment, I think at the heart of structure is critical thinking and actually the sense of direction in your argument and the message that you really want to give your reader.

So I say to people, think of your writing being like a journey, you have to go on your journey first, which is your journey of discovery, your process of enquiry, where you are thinking about your topic, your question and you are exploring the issue which is related to that topic through your reading and your research. When you come to some kind of resolution, some kind of answer, you've developed your opinion after your reading and research you then need to work out how to take your reader there. So, think of that as a destination, you have decided where you have to go, now you can plan how to get your reader there in the most logical way, so that's where you think about how to organise the different themes and issues and points in your writing, because for example if you are taking your student to one country and you have decided that's where you are going because that's where the answer is, there is no sense in telling them all about a country that isn't on route to that country. You might tell them why you've chosen this direction and not another, this country and not another, but you need to keep focused and keep your reader on that journey from A to Z.