Critical Thinking and Working with Resources

Who Is This For?
This session is aimed at developing your academic skills and improve your knowledge of the key skills needed to succeed at University. You will be able to apply this advice and information directly to any essays/assignments/research projects you will be given during your time at University.

What Are We Going To Cover?
- Identify sources for your research. You'll find out what's out there and where you can find it.
- Introduce thinking critically and determine what makes a good critical thinker.
- Critically analyse sources and assess the usefulness and reliability of certain sources.
- Determine what makes good critical writing and discover why is it so important for your research.

Aims and Objectives

Aim of session:
For students to be introduced to the concept of critical thinking and learn how to work with a variety of sources.

Objectives:
By the end of the session, you will have:

- **Reviewed** the idea of critical thinking in a research capacity.
- **Identified** sources relevant to your research.
- **Evaluated** the usefulness and relevance of sources in relation to a case study.

**Introduction**

Let’s start by watching a short video from the BBC. Whilst you are watching this think about whether the source is reliable, whether the information is true and why you think this.

https://www.youtube.com/watch?v=9dfWzp7rYR4&list=PL68w8ICuG53uRQ1hW-5L_ko4zkBon3_cc&index=15&app=desktop

This video is fake, it was an April fools joke produced by the BBC. Penguins cannot fly. However sometimes it is easy to be fooled especially as this video was produced by the BBC, normally a reliable source of information. What we learn from this is that we **shouldn’t take resources at face value** and that’s what you will look at in this session.

**Where Are You At The Moment?**

Look at the diagram above and highlight what stage you are at with the research. This session will focus on **‘reading around the topic, refining your research area’** and **‘the bulk of research: analysing the literature and forming opinions.’**
The Marking Specification

Often research based marking criteria (like an Extended Project Qualification or another research assignment) requires students to follow the below – however it will be relevant for all research projects:

"obtain, critically select and use information from a range of sources; analyse data, apply it relevantly and demonstrate understanding of any appropriate linkages, connections and complexities of the topic."

That means you need to:

1. Identify the best sources for the task
2. Draw on a variety of sources and source types
3. Critically evaluate the data and arguments
4. Use the reading to answer the question
5. Show in-depth understanding of your topic

What Is Critical Thinking

The word "critical" can mean different things in different contexts. For example, it can refer to the importance of something, or can also mean pointing out the negative aspects of something, i.e. to criticise something.

However, critical thinking in your research does not mean looking only for the most important aspects of a topic or just criticising ideas. It is also about not accepting what you read or hear at face value, but always questioning the information, ideas and arguments you find in your studies.

Critical thinking is a key skill that should be applied to all aspects of your studies. For your research you need to be able to think critically about the resources and information you use in your work. You need to ask the right questions when reading the work of others; your writing needs to show that you have the ability to weigh up different arguments and perspectives and use evidence to
help you form your own opinions, arguments, theories and ideas. **Critical thinking is about questioning and learning with an open mind.**

Critical thinking should help you to:

- **interpret** evidence, data, arguments, etc. and be able to identify the significance to your assignment question
- develop **well-reasoned** arguments of your own for your assignments
- use and draw on evidence to **justify** your arguments and ideas
- **synthesize** your thoughts and the thoughts of differing authors/researchers/theorists.

Source: (https://library.leeds.ac.uk/info/1401/academic_skills/105/critical_thinking)

**Activity One**

Use your activity sheet to sort the words into those which are helpful for critical thinking and those that can be a hinderance.

**Activity Two**

Use your activity sheet to critically evaluate the source advertising cigarettes. You should consider:

- Who
- What
- Where
- When
- Why

**Key Messages of Critical Thinking**

- To be a good critical thinker, start with an **open mind**
- Thinking critically means **not just accepting the first statement**
• Need to consider the **why, when and context** of a source

• Start with one source, move to a second source to question this and move to another source to question that

**Critical thinking requires you to:**

• **Ask questions** of your research

• **Understand** the research **context**

• **Offer Evidence** for your statements, arguments and/or conclusions

• **Fully Explore** the complexities of your topic through a **variety of resources**

• **Evaluate each source** and argument to make your **own conclusions**

**Evaluating Sources**

You won’t have time to read every source relating to your chosen topic so you will need to be selective.

To do this you could use the below evaluation method and ask, **should I use this source?**
Activity Three

Use your activity sheet and imagine you are writing an essay looking at the causes of Brexit. Which of these sources would you use and why?

Using sources checklist

During your research you could use the below checklist to ensure your sources are reliable and relevant to your research.

When you are using sources, you should be an active reader: constantly keeping a critical eye and thinking about the text in relation to your own research. You will need to take effective notes which highlight your own thoughts as well as record key ideas/quotes from the text you are reading.

Writing Critically

Demonstrating your critical thinking skills and analysis through your writing helps you meet the mark criteria (seen at the start of this session). Research isn’t about collecting information or describing something, it’s about weighing up evidence, evaluating sources, forming arguments and reaching well informed conclusions.

Have you ever received feedback such as “your essay is too descriptive” or “you need to show more critical analysis”?
This means you need to engage in academic debates and research happening in your subject area! 
As well as use your critical thinking powers to analyse the sources and come up with persuasive, coherent arguments.

Don’t forget:

- Keep descriptive statements to a minimum
- No need to provide large amounts of background or historical information
- Focus on analysis
- Don’t just state information/facts – but evaluate them

Descriptive V Critical

**Descriptive Means**: serving or seeking to describe.

**To Be Critical Means**: not accepting what you read or hear at face value, but always questioning the information, ideas and arguments.

Activity Four

Go to your activity sheet and distinguish the types of writing as either descriptive or critical.
Example of descriptive vs critical writing: topic - Climate Change on Coral Reefs.

Descriptive Writing  The percentage of live coral cover on reefs in Mo’orea, French Polynesia, recovers quickly from disturbance events such as cyclones or coral bleaching.

Critical Writing  The rapid recovery of live coral cover in Mo’orea suggests that the reefs are healthy in spite of climate change. However, using coral cover as the only indicator of reef health is not sufficient, because it does not look at how the species composition of the coral population may be changing.

Explanation

Critical writing looks at the limitations of research data and explores multiple possible causes for an event or occurrence. Here, the student acknowledges when there is not enough evidence to make a claim. Using tentative verbs such as “suggests”, “may be”, and “could be”, helps them assert the likelihood of their argument, but they explain their argument cannot be proven conclusively.

Summary

- Critical thinking requires you to be an active and discerning reader.
- Don’t accept everything you read at face value – remember the penguins!
- Remember to always question the usefulness of a source by considering its:
  - Authority
  - Objectivity
  - Reliability
  - Timeliness
  - Evidence
  - Relevance