

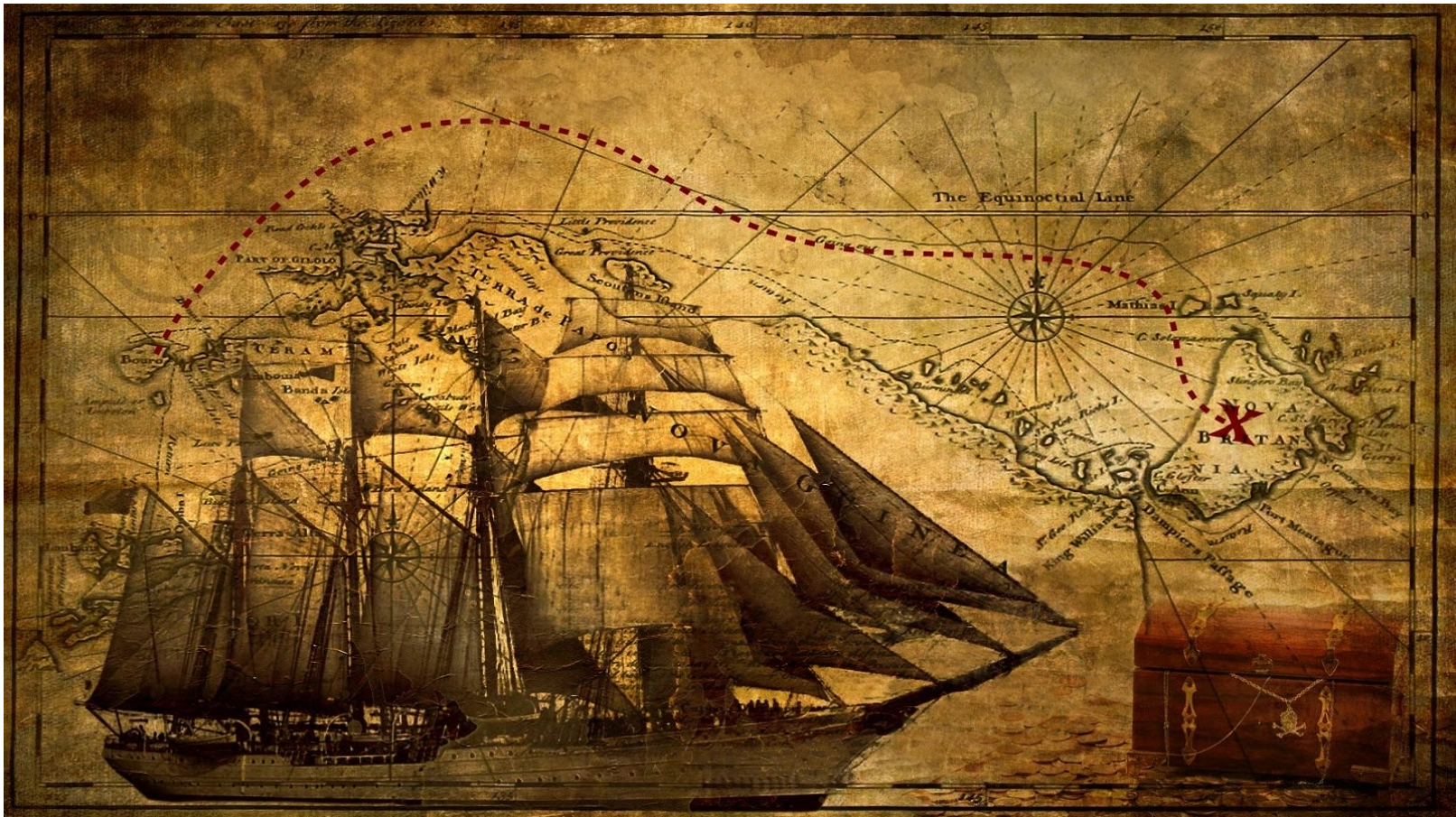
# Writing an introduction

**Technical Information and Communication 1DV510**

**Sergej Ivanov and Nicholas Waters**

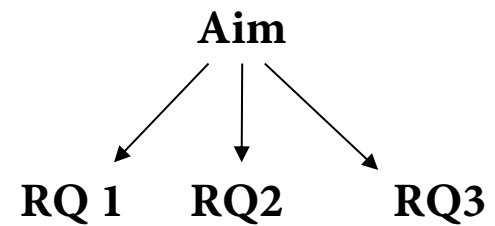
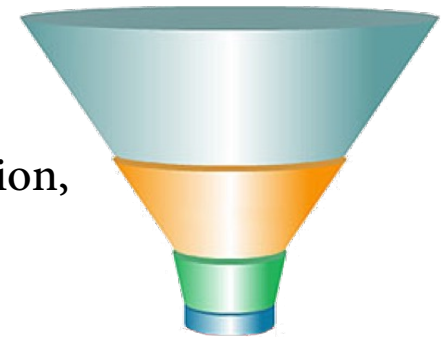


# What is introduction?



# Introduction: structure

- ❑ Background
  - present the wide context of the topic in your report
  - identify what area needs action
- ❑ Rationale
  - justify why this action is relevant (research, profession, society)
  - prepare the reader for the aim
- ❑ Aim
  - promise the reader what you will do in your report (remember to be precise!)
- ❑ Research questions
  - divide your aim into a few specific aims
  - inform the reader what issues you address
  - remember that RQs should relate to the aim



## Finding a shorter path

Despite the increased awareness of the problems of pollution in recent years, Britain continues to trail behind most of Western Europe in adopting stricter measures of control. While it is almost impossible to consider the problems of pollution with respect to one country in isolation, the most serious problems to affect Britain directly are probably those of industrial and nuclear waste, pesticides and car exhaust fumes. In what follows, each of these will be discussed together with their effects. Finally, it will be argued that to continue to ignore such problems is at the peril not only of Britain's environment but of the environment in general.

Since the current trend of 'Green' politics came to the fore, we have discovered our water is unfit for consumption, our meat is poisoned by various bacteria, and our fruit and vegetables are contaminated by chemicals. Not only are food and water affected, but the land and sea are constantly subject to chemical and nuclear dumping. In addition, sewage and various oil disasters have contributed to the increase in the killing of wildlife. Even the air we breathe is polluted every day by the millions of cars constantly pumping carbon monoxide into the atmosphere.

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Source: <http://aeo.sllf.qmul.ac.uk/Files/Introduction/Introduction.html>



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# Aim and research questions

Aim (a short statement) – possible to achieve within the given timeframe.

The aim of this report is to investigate whether an Internet shutdown would affect the student services at Linnaeus University.

**The aim and research questions are usually revised  
several times while writing the report!**

Research questions (usually 1-3) – directly related to the aim.

- ✗ Is it good to shut down the Internet?
- ✗ Will the shutdown lead to chaos?

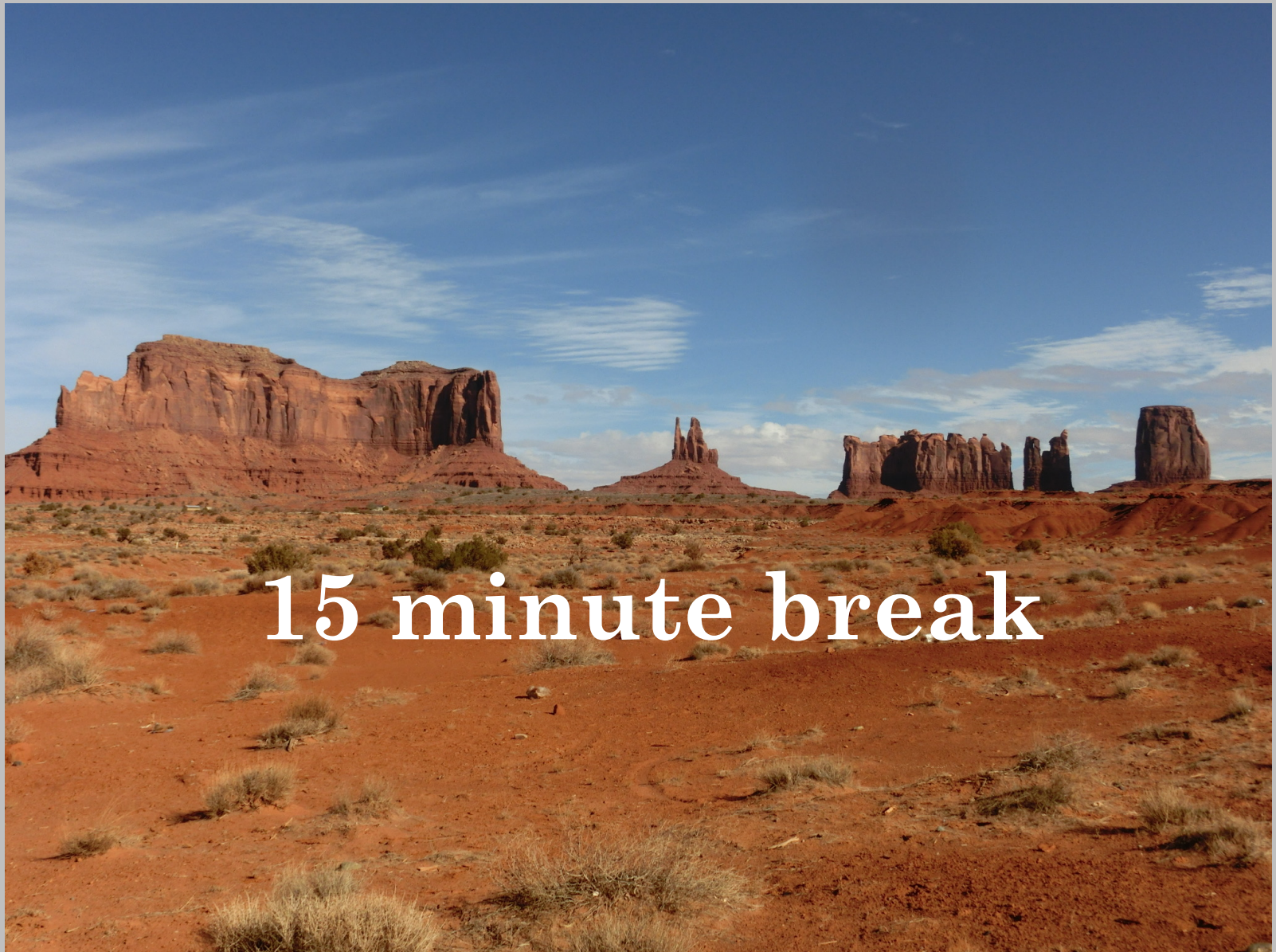
[Link to Academic Phrase Bank](#)  
[Link to DiVA](#)

- ✓ What student services are extensively used via the Internet?
- ✓ How might an Internet shutdown affect the none internet-based student services?



# Critical thinking and research questions



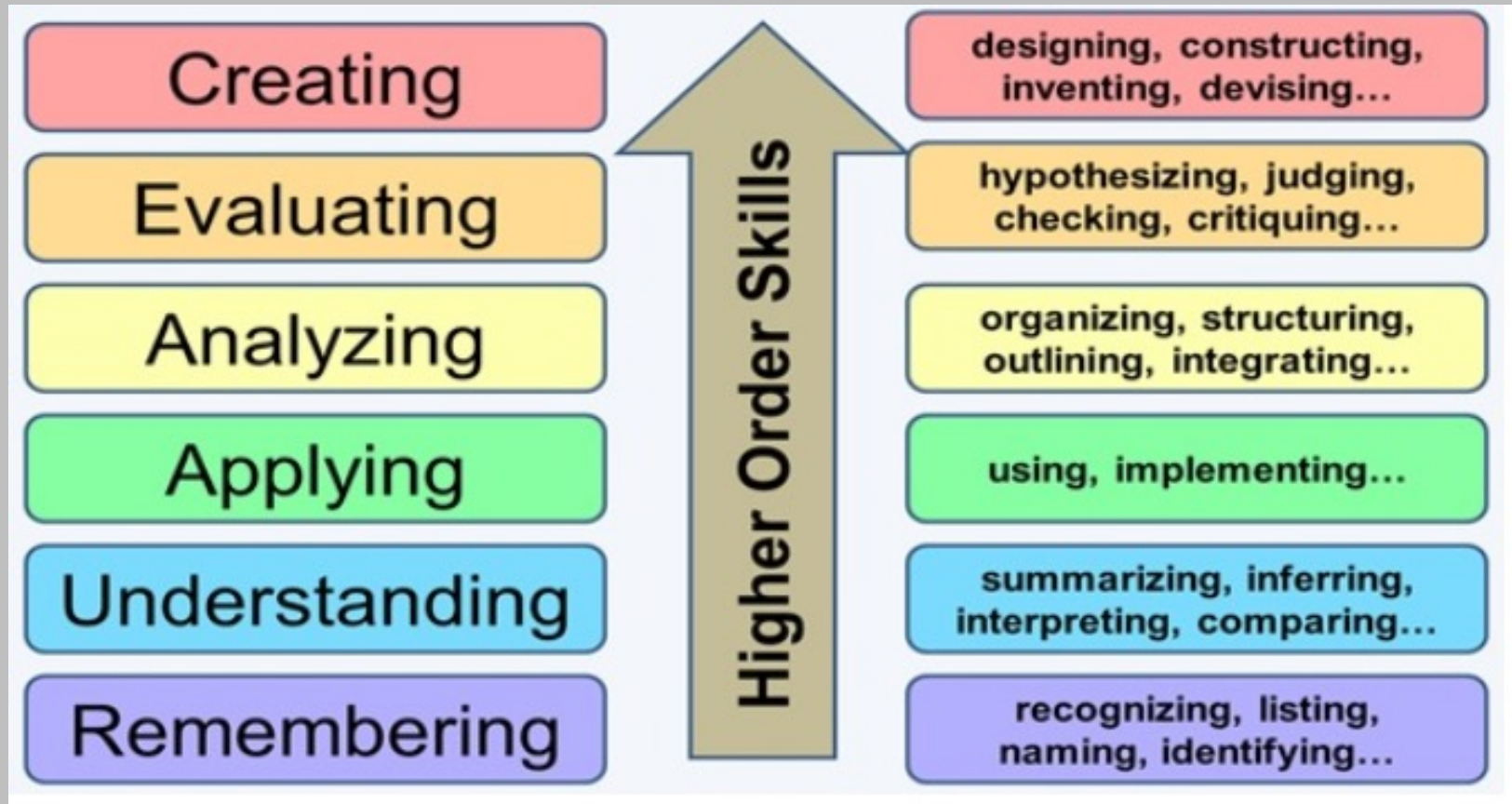


15 minute break

# Critical thinking

- What is it?
- What does it mean?
- Why is it important?
- How it fits into 1DV510

# Bloom's Taxonomy



<http://ezsnips.squarespace.com/blooms-taxonomy/>

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# What is critical thinking?

# What is critical thinking?

OED

“The objective analysis and evaluation of an issue in order to form a judgement.”

# What are the four basics of critical thinking?

- Ask questions
- Gather relevant information
- Think through solutions and conclusions
- Consider alternative systems of thought



# What does it mean?

Critical  $\approx$  negative or obstructive

Not accepting information at face value

Evaluate previous research, assess its strengths and weaknesses and look for evidence to support arguments being made

# What is it important?

Basis of all academic and scientific enquiry



# What does it involve?

## 1. Scepticism

- not taking anything for granted
- question assumptions or conclusions
- consider conclusions logically follow the evidence presented

Do not accept an assertion merely because it is in print or is delivered by a person or authority

# What does it involve?

## 2. Objectivity

- impartial and disinterested approach
- set aside any emotional reactions or personal views when considering an issue
- judge a researcher's arguments or conclusions according to:-
  - a) the underlying logic
  - b) the evidence presented to support them

**No room for subjective beliefs or assumptions.**



# What does it involve?

- **Open-mindedness**

“Be open-minded about what you are examining. Consider all sides of an argument, even if you have personal opinions one way or another. Open-mindedness means never ignoring potential explanations or interpretations, being flexible and willing to accept evidence that might conflict with your own personal experience.”

Burton, 2017, p. 45



# How to use it when reading texts

## 1. Comprehension

Understand what the author is saying. Summarise the author's argument in your own words.

# How to use it when reading texts

## 2. Analysis

Break down text into component parts

Examine structure and relationship between parts

Ask:

What is the author's purpose?

What assumptions does the author make?

# How to use it when reading texts

What techniques does the author use to persuade?

- Logical argument
  - Is the logic valid?
- Appeal to authority
  - Are the references reputable and relevant?
- Empirical data
  - Is the study (methodologically) flawless?
- Language
  - Is it emotive, obscure, full of jargon?

# How to use it when reading texts

## Stage 3: Evaluation

### Quality and validity

- Is the argument clear?
- Does the evidence support the conclusion?
- Is the writer objective?

# Tips for critical writing

1. Read extensively and gain a deep understanding of your research topic
2. Base your arguments on evidence
3. Clearly show the link between your arguments and the evidence being used to support them  
**Do not imply a link or assume the reader will accept your argument**
4. Structure....

# How to use critical thinking in 1DV510

Abstract

Introduction

Aim

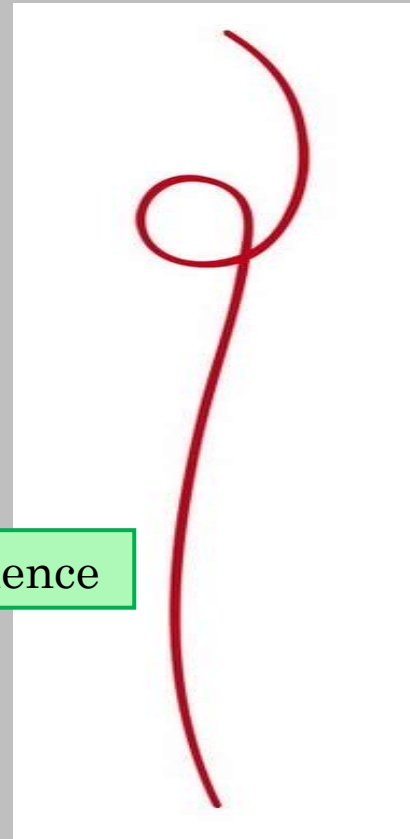
Research questions

Results

Discussion

Conclusion

Research & evidence



## Reference List

Burton, L. J. (2017). *An interactive approach to writing essays and research reports in psychology* (4th ed.). Wiley.

Cottrell, S. (2011). *Critical thinking skills: Developing effective analysis and argument* (2nd ed.). Palgrave Macmillan.

# Research questions

# Research questions

1. Clear and focused
2. Appropriate scope (limit the subject)
3. Not too facile
4. Possible to answer
5. Researchable
6. Analytical rather than descriptive

# Example 1

- 1. Poor:** How will AI affect future employment?
- 2. Better:** What are the potential effects of AI on the filmscript writing industry?

**Why?** 1 is vague, non-specific  
2 is focused, concentrated

## Example 2

**1. Poor:** Has there been an increase in ChatGPT use in the past year?

**2. Good:** To what extent has ChatGPT cornered the market in consumer AI applications?

**Why?** 1 could be answered, yes or no  
2 is quantifiable

## Example 3

*The Current Situation and Deficiencies of Human Computer Interaction.*

*The future development trend of human-computer interaction.*

## Example 4

1. Digital cameras are far better than smartphone cameras. So what are the features that make digital cameras better than smartphone cameras?
2. Technology is advancing exponentially, so is it possible to replace high-tech digital cameras with smartphones?

## Example 5

1. Is satellite internet a feasible alternative to terrestrial internet infrastructure?
2. Can satellite internet expand global internet access?

## Example 6

1. How does AI differ from prior automation technologies?
2. What roles are projected to be automated by AI?
3. What barriers to widespread implementation will AI encounter?

# Good research

US medical research often uses **FINERMAPS**

- Feasible (10 weeks)
- Interesting
- Novel
- Ethical
- Relevant
- Manageable (10 pages)
- Appropriate
- Potential value and publishability
- Systematic (See above on critical thinking)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6322175/>



# Why write a good introduction?

- ❑ You do not get a second chance to make a first impression
  
- ❑ The introduction is a road map for your report
  - First draft is for you to plan your treasure hunt
  
- Treasure hunts are unpredictable  
=> Revisions are inevitable
  
- Final draft is to show that your plan was right from the very beginning



# Assignment

1. Write an introduction of your report that includes background, rationale, aim and research questions (Draft 1).

English: Do not use the report template yet

Svenska: Använd rapportmallen redan nu

2. Proofread your draft before submitting and make necessary changes.

3. Submit your draft in the appropriate folder on MyMoodle. Note that there are two submission folders: one for reports written in English and one for reports written in Swedish.

English: PDF preferred

Svenska: lämna in i Word

Deadline: November 13 at 08.00.

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# Further reading

English: ch. 2–3 in Osmond (2016)

Swedish: kap. 7–8 i Walla (2004); kap. 3–4 i Blomström och Wennerberg (2015)



# Next session: Report structure

November, 13

15.15–17.00

Linné



# References

Björklund, M. & Paulsson, U. (2003). *Seminarieboken – att skriva, presentera och opponera*. Studentlitteratur.

Burton, L. J. (2017). *An interactive approach to writing essays and research reports in psychology*. Wiley.

Cottrell, S. (2011). *Critical thinking skills: Developing effective analysis and argument*. Palgrave Macmillan.

<http://aeo.sllf.qmul.ac.uk/Files/Introduction/Introduction.html>

