Summaries and critical reviews
Introduction to the project work
732A60 - Seminar 8

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Academic writing

- Objective
- Formal language
- Structure
- References

Objective

- Based on facts
- Use references
- Even for “common knowledge"

Formal language

- Be specific
- Avoid redundancy
- Avoid informal language
- Avoid rhetorical questions
- Avoid contractions

Active/Passive voice

- Passive voice has been encouraged for decades
  - Common practice
  - More formal
  - Avoid repetitions of the agent
- But active voice is also on the rise
  - Less wordy
  - Clearer, more concise!

Active voice	Passive voice
I chose this methodology	This methodology was chosen
I found it difficult to apply theory to practice	Applying theory to practice was difficult
In this essay, I aim to...	The aim of this essay is to....

→ **Remember:** clarity prevails, but don't hop on colloquial language.
→ Some recommendations on the voices from Melbourne University: here.

Structure

1. Introduction
   - Theoretical background
   - Aim
2. Methodology
   - Procedures
3. Results
   - Tables, graphs
4. Discussion
   - Aim
   - Weaknesses
   - Result
5. Conclusions

References

- Citations
- Consistency
- Specify the complete reference (page, journal, year, ...)
- Bib TeX
- Use the appropriate entry type

- article entry
- book entry
- booklet entry
- conference entry
- inbook entry
- incollection entry
- manual entry

- masterthesis entry
- misc entry
- phdthesis entry
- proceedings entry
- techreport entry
- unpublished entry
- ...

The difference lies in small details, ALWAYS:

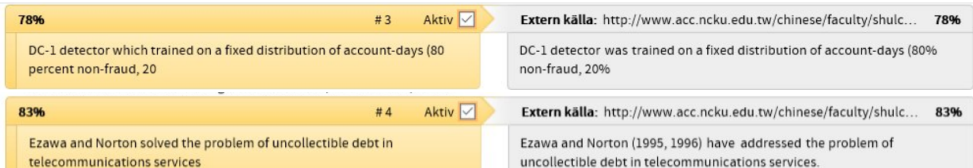
- Explain concepts before using them
- Even for widely known concepts
- Write full word or phrase (abbreviation), then the abbreviation can be used
- Write full title (acronym), then the acronym can be used

Grammatical tenses

- Be consistent
- Use appropriate tense

Referencing vs pliagiarism

- Paraphrasing is a **kind** of plagiarism
  - Create sentences yourself
  - Examples of detected paraphrasing by Ouriginal
  - Yes, self-plagiarism also exists



The latter has even a chance of being a **bogus citation**, which makes it worse.

Mathematics

In general:

- Definitions for **all** notations
- Be consistent

To deepen the topic:

- Lee, K. P. (2010). *A guide to writing mathematics. Retrieved September, 12*, 2010.
- "How to write mathematics badly" by Jean-Pierre Serre (Fields prize 1954 / Abel prize, 2003)

A summary / An abstract

It is a brief account of the most relevant points. It captures the main messages.

- Why?
  - Understand the main points without reading the entire paper
- How?
  - Read carefully and extract the **main message**
  - When writing:
    - Do *not* put in *your opinion* in the summary text
    - Use *your* own *wording*

Main message

- What makes this paper valuable
- Why would one want to read it?
- The abstract is *not* a short description of everything in the paper

Writing abstracts

- Keep background information to a minimum
- *Good structure* (step-by-step, approximately equal text proportions)
  - Context
  - Explanation of the main contribution
  - Comparison of the author's approach and the alternative approaches: what does the author write about this?
  - Conclusions, limitations

Preliminary analysis

- Author's central purpose?
- Methods to accomplish purpose?
- Results
  - How was each method used?
  - Are results significant?
  - How do the results contribute to the central purpose?
  - How were results interpreted?
- Are the research questions answered?
- Novelty of the research?
- Do the results support or contradict other researchers' findings?

Significance and contribution to the field

- How relevant are the research questions?
- To what extent is the aim achieved?
- Does the text bring much new knowledge?
- How does it match works in the field?
- Was anything missing or not stated?

Methodology or approach

- Is the methodology clearly explained?
- Are other studies considered?
- How objective/biased is the approach?
- Are the results valid and reliable?
  - Qualitative? Statistical tests?
- May there be better/alternative approaches?
- Are limitations and future research discussed?

Argument and use of evidence

- Is there a clear problem, statement or hypothesis?
- Are the arguments consistent? Does the author contradict him/herself?
- Are conclusions too strong? Too weak?
- How valid and reliable is the evidence?
  - Data valid?
  - Simulation results sufficient?
- How effective is the evidence in supporting the argument?
  - Do the simulations actually support the claims?
- Are conclusions justified? do they rely on the results?

Critical reviews

A critical review involves analyzing and evaluating someone else's work and presenting a point of view that you can support.

- Types of reviews
  - Review of a manuscript (opposition of a master thesis)
    - Text, formatting and structure issues
    - Methodological issues
  - Review a paper as part of your own paper
    - Methodological issues
- Main questions
  - What was the article/paper about?
  - How was it written? (style, wording, ...)

How to write a critical review?

- Main guideline: *constructive criticism*
- *Cautious language*, positive features first

Ex: Saying what the author should have done but did not
"This was a well-written survey of current information but the connection between nutrient stress, secondary compounds, and herbivory rates in wetland plants *could have received* greater coverage."
"The discussion includes many interesting sections but can be improved and made more relevant if the author uses more recent literature to support his/her views."

Formatting

- Choose a relevant and interesting title
- Is the abstract a good summary of your paper? (it is often good to write the abstract in the end)
- Is the information contained in the correct sections?
- Are tables and graphs well formatted? Do they have captions?
- Connections between text and tables/graphs
  - Do they complement or repeat each other?
- Are methods well explained?

Point of view

Are statements supported?

- Provide explanations
- Cite relevant and correct papers?

References

- "TGTU39 Academic Writing" by J, Takkinen (2010)
- Kuyper, B.J. (1991). Bringing up scientists in the art of critiquing research. Bioscience 41(4), 248-250.
- https://www.student.unsw.edu.au/writing-critical-review

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Topics

A short paper (*3 pages*) on **one** of the following topics:

- Academic writing
- Writing reviews on scientific papers
- Constructive criticism in the context of higher education (HE)
- Ethical rules in HE context
- Academic culture
- Equal opportunities in HE context
- Literature search, search engines
- Plagiarism in HE context
- Data ethics and machine ethics
- Sustainability in HE context

Required ingredients

The paper must include:

- Usual paper elements
  - Title, abstract, introduction, analysis, discussion, conclusion, references
- Introduction
  - Motivate in your paper why this topic is important, mention what problems may arise in the context of this topic
  - Check the existing literature (scientific papers) on the topic and summarize/present important facts/theories/methods/approaches
- A critical analysis of the topic by performing some of the following actions
  - *Comparing the problems/methods/approaches* you described to the situations/traditions *in your own country*
  - *Providing* your *own critical judgement* about the theories/methods/approaches/guidelines that are present in the literature
  - *Interviewing some people about the topic of your paper*, summarizing their answers in the paper and making conclusions (construct the interview questions yourself) → Attach survey and answers as appendix!

Instructions for the project work I

- The paper should be written in LaTeX
- The paper should be submitted in *LISAM* at latest on October 5 in *two ways*
  1. Under "**Submissions**" - submit only the paper as a PDF file
  2. Under "**Collaborative workspace**" - Create a folder with your name, *e.g.* "Anders Andersson", then put your BIB and PDF files inside
- On October 13, you will receive feedback in LISAM
  - Those who *pass* the first revision will attend one workshop (maximum 3 hours) sometime between October 16-17
  - If the paper *did not* reach the level required to pass, you have the opportunity to re-submit an *improved version* at lastest November 2
- On November 7, you will received feedback in LISAM
  - Those who *pass* the second revision will attend one workshop (maximum 3 hours) sometime between November 13-14
  - If the paper *did not* reach *again* the level required to pass, you have the opportunity to re-submit an *improved version* at latest November 30

Instructions for the project work II

- On December 5, you will received feedback in LISAM
  - Those who *pass* the third revision will attend one workshop (maximum 3 hours) sometime between December 11-12

Workshops

- Schedule for groups and opposition will be published in LISAM
- You participate at only one workshop of those scheduled (see opposition schedule later)
- Read **all** papers of the participants at *your* workshop
- Read **one** paper that you are opponent for **very carefully**. At the workshop, you should:
  - Briefly introduce the paper
  - Ask at least 4-5 questions/comments to the author of this paper. These questions/comments should not relate to the grammar or formatting, but should rather *be questions that may trigger classrooms discussions.*
  - Try to make your questions interesting for the other participants
  - You must have enough questions to support discussions about this article for 11-13 minutes

Criteria for "Pass"

- Attendance of seminars
- *Active participation at the workshop* - not only during the presentation that you are opponent/responsible for
- The paper has sufficient quality

Sufficient quality of the written report I

- The paper is devoted to one of the specified topics
- The paper has the necessary elements of a scientific paper (title, abstract, introduction, etc)
- The problem is clearly presented and its importance is well-explained
- The introductory section summarizes in a clear fashion a reasonable amount of research papers containing theories/methods/facts/approaches related to the topic. Alternatively, at least one research paper is summarized but the student also presents a conducted interview and a connection between the interview results and the conclusions in the selected research paper(s).
- The main section of the student paper, which constitutes approximately half of the text, contains own critical judgements related to the topic, to the conducted interview and/or to the papers related to the topic.
- Grammar and the structure of the sentences in the paper are of a good quality

Sufficient quality of the written report II

- Scientific/academic language
- Correct referencing
- Scientific papers need to be analyzed!
  - Blogs, webpages, etc are also possible, *but* only as support
- Own critical judgements should be clearly seen.

AI tools

- AI tools are allowed, but...

AI tools

- AI tools are allowed, but...
- You need to be able to explain, motivate, understand, and defend both the context, content, explanations, and formulations of your text.

With all of that said...

Best of luck!

Thank you for your attention!

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