## Introduction to Sentiment Analysis

-- Session 5: How to Write a Term Paper--

Winter Semester 2019/2020 Instructor: Michael Wiegand Institute for Computational Linguistics Heidelberg University, Germany Acknowledgements:

The slides are basically a summary of the document *Wie schreibt man eine Hausarbeit?* by **Prof. Manfred Pinkal** and **Andrea Horbach** (there is a link on the course webpage).

## Purpose of a Term Paper

- To show that you have understood the topic (paper) given to you.
- To show that you know how to do scientific writing.

## Who is the Addressee of Your Term Paper?

- Actually it is your instructor.
- BUT: better write this as if you addressed your fellow students who have not attended the (pro)seminar.
- ► Why?
  - Your instructor already knows the work you are going to write about.

General outline:
Introduction
Main part
Conclusion

#### Introduction:

- What is the topic?
- What is the concrete research task?
- What is the motivation for doing this kind of research?
- Give a brief outline how the rest of the paper is structured.

#### Main part:

- The actual content
- The most important thing: train of thought must by clearly visible.
- ► Hint: the structure of the paper(s) you summarize need not be best for your term paper (→ different audience).
- Have subsections!

#### Conclusion:

- Summarize the task.
- Summarize the proposed approach.
- Where did the proposed approach succeed?
- What are the limitations of the approach?
- What could be proposed as future work?

## Literary Research

- In a proseminar, it suffices to use the literature given to you.
- However, if you include further literature then this will certainly be regarded as a plus of your course work.
- The choice of further literature needs to be approved of by your instructor in advance.

## Literary Research

- Not every pdf you find on the web is a research publication.
- Check whether the work has been really published (e.g. journal, conference, workshop).
- Focus on published work that has also undergone a *peer-reviewed* process.
- Check Google-Scholar for citation statistics: a frequently cited work is also a good hint that this a significant piece of research.

## Structure of the Term Paper

- Your paper should have the following structure:
  - Cover
  - Table of contents
  - List of figures (if applicable)
  - the actual content
  - Bibliography
  - Appendix (optional)

## Structure of the Term Paper

#### Best way to enforce that structure:

► Use LaTeX

A Detailed introduction is given in the course: Einführung in wisseschaftliches Schreiben

## Importance of Examples/Illustrations

- Examples and illustrations are important in order to convey your content.
- They can be much more effective than a mere textual description!
- Do not restrict yourself to those examples/illustrations from the paper(s) you present.
- Example sentences should be indexed.

## Tables, Formulas and Figures

Purpose is to visualize important content.

- You need to address <u>every</u> table/formula/figure in your text.
- Have a caption for every table/formula/figure.
- Index them; address the tables/formulas/figures in the text by their index!
- Hint: LaTeX is very helpful in enforcing this!

## Writing Style

- Write the paper in your own words!
- Use the 1st person (singular or plural) in order to present your own thoughts.
- Use the 3rd person for reporting other people's thoughts.
- Avoid excessive unpersonal writing style (e.g. all sentences in passive voice).

## Writing Style

Use a formal writing style.

- Copying/extending your presentation slides is certainly inadequate!
- Use linguistic terminology.
- Introduce new terminology the first time you mention it.
- See that you use (and spell) your terminology consistently.

## Citations

- Everything what is not your own idea, thought, statement etc. needs to be marked as such.
- In case there is some concrete literature from where you have got that content, then make an entry in your bibliography.
- Otherwise, state the source
  - ▶ in brackets or
  - add its URL as a footnote

## Citations

- Please use APA citation format.
- APA: American Psychological Association
- Basic idea: author's last name and the year of publication for the source should appear in the text.
- Again, there exist predefined commands in LaTeX for this!
- One important distinction:
  - Method X was found to outperform state-of-the-art baselines (Meier et al., 2008).
  - Meier et al. (2008) examined phenomenon Y in a large- scale analysis.
  - Name of author is not enclosed within brackets if the citation is a proper constituent of the sentence.

## Bibliography

- Have a consistent format for entries in your bibliography.
- Easiest way to ensure this: LaTeX (more specifically bibTeX).
- Bibliography must only contain publications that are explicitly cited in your term paper!

# In what order should the paper be written?

- Often writing in linear order (i.e. starting from the introduction and finish with the conclusion) is a bad idea!
- Better start from the middle (i.e. main part).
- Start with tables/figures reporting results of experiments.
- Then think about what you have to explain to your audience (concepts, algorithms etc.) so that they understand these results/experiments.
- Start with bullet points rather than fully fledged sentences!

## Proofreading

- Use spell-checking.
- Use grammar-checking.
- Avoid run-on sentences.
- Avoid orphan lines.
- Check that the cross-references are correctly set.
- Check that your paper has a consistent format.

## Proofreading

- Ideally, have someone else proofread your paper.
- It is often more effective to proofread your own paper after a few days rather than proofreading it twice or three times one after the other.
- The paper should be easy to read!
- If the reader has to do much guesswork, you did not do a good job.

## Some Formal Issues

- Length: 10-15 pages
- In German or English
- Deadline for term paper: TBA
- The only file format that is accepted is pdf.