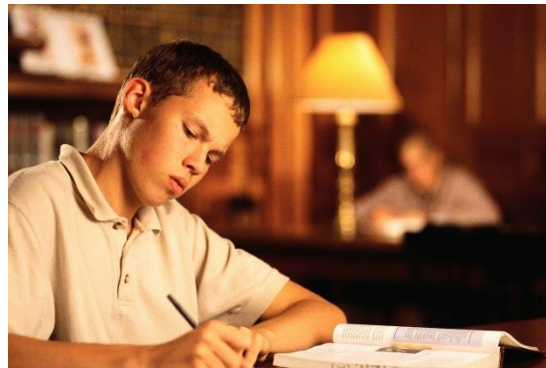# CHEM

Bachelor's thesis Workshop 1

2020

Differences between English texts and those written in your own mother tongue?

Reader-responsible *vs.* Writer-responsible cultures

Reader-responsible writing culture – the responsibility for understanding the message is **on the reader**

- End focus (main idea = result)

- Avoids stating the obvious

- Avoids repetition

- Preference for complicated structures

Writer-responsible writing culture – the responsibility for getting the message across is **on the writer**

- Initial focus (main idea = starting point)

- A lot of background information

- Previews, summaries, repetition

- Language is clear and simple

Referencing conventions & avoiding plagiarism

- Summarise

- Paraphrase

- Quote (?)

- …AND provide the sources (-> match with your list of references)

Do you ALWAYS have to find and give a source ???

Author-prominent vs. information-prominent style

Author-prominent	Information-prominent
Smith [2] showed that... **In [2],** it was shown that… **Several recent studies [1], [3], [4], [15], [16]** have suggested that...	**The theory** was first proposed for linear systems **[1]**.
Smith (2014) reports that these methods are often accompanied by a certain degree of biopolymer degradation**.**	**It has been reported that** these methods are often accompanied by a certain degree of biopolymer degradation **(Smith, 2014).**

Writing a paragraph on one citation: information prominent

3.2.1. Fast pyrolysis and hydroprocessing

One of the earliest TEAs of the fast pyrolysis pathway is provided by Bridgwater (1995), which calculates that the MFSP of diesel fuel produced via FPH is 158% higher than the contemporary diesel fuel market price. The analysis presents MFSPs for several scenarios involving different process and upgrading configurations, including catalytic upgrading, but provides relatively few details on capital costs. Furthermore, its conclusion that the FPH pathway cannot compete with petroleum is largely driven by its use of a $20/bbl petroleum price that, while appropriate at the time, is much too low for current comparisons.

Topic sentence

Topic = TEA (techno-economic analysis) of fast pyrolysis pathway by Bridgewater

Cohesion clearly indicates the source of information, i.e., Bridgewater (1995)

Brown, T. R. (2015). A techno-economic review of thermochemical cellulosic biofuel pathways. *Bioresource Technology*, 178(0):166 – 176.

Writing a paragraph on one citation: author prominent

Which principle does the author use to indicate the whole paragraph refers to the same source?

Gonzalez et al. (2012) uses a modified version of NREL's MAS pathway model to quantify the pathway's techno-economics under five lignocellulosic feedstock scenarios: loblolly pine, natural hardwood, eucalyptus, stover, and switchgrass. A TPI of $284 million is calculated for a 1295 MTPD biorefinery. The analysis calculates both NPV and IRR for each feedstock scenario under the assumption that the biorefinery receives $4.64/gge ($1.23/lge) of ethanol and operates for 15 years. The stover and switchgrass scenarios yield the lowest returns ($38 million/14.2% and $84 million/16.5%, respectively) while the pine scenario yields the highest returns ($192 million/21.4%). The authors attribute the different results to the composition, moisture content, and alcohol yield associated with each feedstock.

Topic sentence

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Topic sentence

→ By repeating topic and controlling ideas

Brown, T. R. (2015). A techno-economic review of thermochemical cellulosic biofuel pathways. *Bioresource Technology*, 178(0):166 – 176.

Writing a paragraph on one citation: information prominent

What are the author's own views of the matter?

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What are the author's own views of the matter?

Summarizing/paraphrasing information (neutral)

3.2.1. Fast pyrolysis and hydroprocessing

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Reviewing/commenting the information
Problems (contrasting information)
BUT ("provides few details") ,
WHILE ("much too low")

Brown, T. R. (2015). A techno-economic review of thermochemical cellulosic biofuel pathways. *Bioresource Technology*, 178(0):166 – 176.

Whose voice?

- The voice of the scienfic community of the field: shared common knowledge?

- The author's own voice?

- The voice of the cited source and its author(s)?

Aspects of academic style

Avoid focus on WE / I

In this paper, we review some recent development trends in the field of multi-input DC–DC converter topologies for renewable energy system applications. Furthermore, we discuss the operational principle, advantages and disadvantages of multi-input DC–DC.

We have divided the rest of our paper into 4 chapters.

This paper reviews some recent development trends in the field of multi-input DC–DC converter topologies for renewable energy system applications. Furthermore, the operational principle of multi-input DC–Dc **is dicussed**, as well as its advantages and disadvantages.

The rest of the paper is divided into 4 chapters.

Put **action** into the **verb**

Where is the action hiding?

1. Avoid excessive use of ''**there is/are...**''

There are several user-related factors **that** must be considered in the design of the interface.

∅ **Several user-related factors ∅ must be <u>considered</u> in the design of the interface.**

2. Avoid using ''**to be**'' to hide action

Action moved from the noun phrase to the verb

The first **developer** of the JavaScript language **was** Netsc...

The JavaScript language <u>was</u> first <u>developed</u> by Netsca...

3. Avoid **generic verbs** : *to do*, *to make*, *to achieve*, *to perform*, *to accomplish...*

The <u>estimation</u> of fuel consumption **was done** using standard criteria.

Fuel consumption <u>was estimated</u> using standard criteria.

Vocabulary: latinate equivalents

Get -> **obtain, receive, achieve...**

Work -> **operate, function...**

Put -> **place, install,...**

Turn into -> **convert, transform...**

Looks at -> **addresses, investigates, analyses, review...**

Find out -> **determine, indentify...**

Go down -> **decline, decrease, diminish**

Because of this -> **As a result of...**

..., so that it.. -> **..., thus –ing**

-> **...in order to...**

Way -> **method, approach...**

Big -> **large, extensive, ...**

But -> **however, ...**

Also -> **furthermore, in addition,..**

Enough -> **sufficiently,...**

A lot -> **significantlly, extensively, commonly...**

Verbs: Indicating the purpose of the thesis

English has many synonyms for "purpose" and "thesis":

The	purpose aim goal objective	of **this**	thesis study work	is **to**	develop determine identify model optimize	[your contribution]	in order to …[why?] for –ing …[why?] that /which can… by –ing… [how?] using… [how?] in … [where?]

Therefore, in order to….,	**this**	thesis study work	develops models	[your contribution]	for –ing …[why?] in … [where?]
			determines assesses evaluates	the feasibility of… the potential of…	

analyze	discuss	introduce	report
assess	evaluate	outline	review
define	examine	present	summarize
derive	explain	propose	survey
describe	explore	provide	validate

Verbs: describing the structure of the paper

*The rest of this thesis **is divided into** five chapters. Chapter 2 outlines the methodology used in this thesis. **Chapter 3 reviews** the literature on the various tools and concepts used during the thesis. **Chapter 4 describes** the development of a small-signal model including the core loss parameters. **Chapter 5 provides** the results of the thesis, including core losses and their associated resistance values, as well as admittances calculated using the small-signal and DC step voltage test results. **Chapter 6 concludes** the thesis by discussing the accuracy of the models and the convergence characteristics of the algorithms.*

Grammar and structures

- The way how the component works remained unclear to the listeners.
- **The operating principle of the component remained…**
- The estimation's accuracy was improved dramatically.
- **The accuracy of the estimation/Estimation accuracy was dramatically improved.**
- Not a lot of information on several essential questions like the probabililty of power outages, implementation costs and so on was included in the report
- **The report included little information on several essential questions, such as the probabililty of power outages and implementation costs.**
- The analysis didn't reveal any unexpected factors.
- **The analysis revealed no unexpected factors.**

Clarity and style: exercise

https://docs.google.com/document/d/16pyfClQTNerhyqkZXbPARd4gdmB57HJsosnqNdN3-d8/edit?usp=sharing

Your texts

1. Development from **general -> specific?**
   - Introduction? Paragraphs?

2. **Topical focus** and progression in paragraphs?
   - Can you identify and underline the **topic sentence** of each paragraph?
   - Does the paragraph **focus** on what is 'promised' in the topic sentence?

3. Places where **more information** is needed
   - More context would help? A few clarifying words?

4. Information or ideas, facts seem to be in the **wrong place**, or **irrelevant** in that context?

5. **Unclear logical connections** between sentences/ideas within sentences?
   - Connectors, introductory phrases, linking expressions...

6. **Reference** to source lacking or unclear?

See you in Workshop 2!

Come to the workshop prepared share your text sample and to give/receive peer feedback.

- Title page of the thesis
- Table of contents
- 3-4 pages of the chapters in the thesis
- List of references