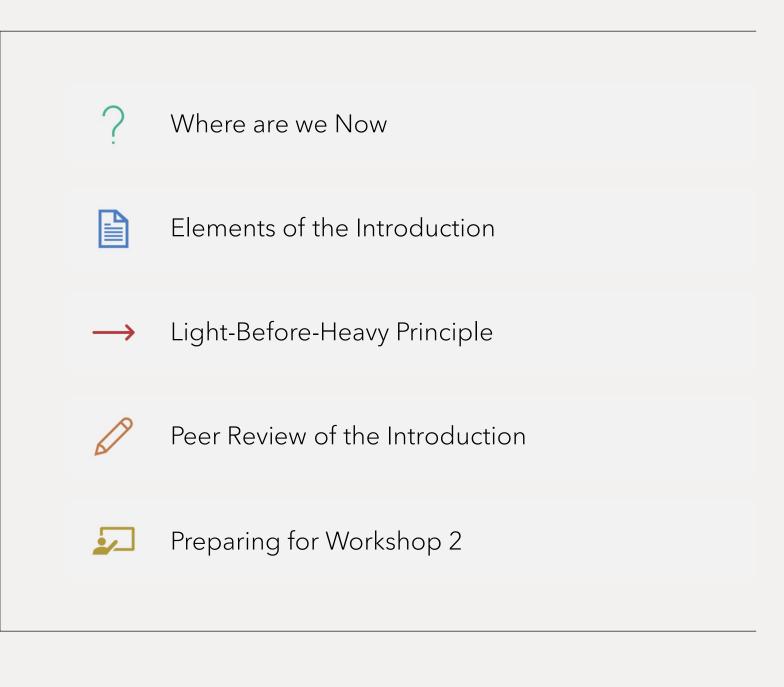
Thesis Workshop 1

MAXI-ANN CAMPBELL





Where are we Now



1. What is the topic of your thesis? What has been interesting/inspiring about it for you?

2. Where are you now in the process? What have you already done, what are you working on at the moment?

3. What kind of writer are you (procrastinator, critical, perfectionist...)? How do you gather and process the material into text?

4. What challenges have you encountered in the writing process? How have you solved them or plan to solve them in the future?

Elements of the Introduction



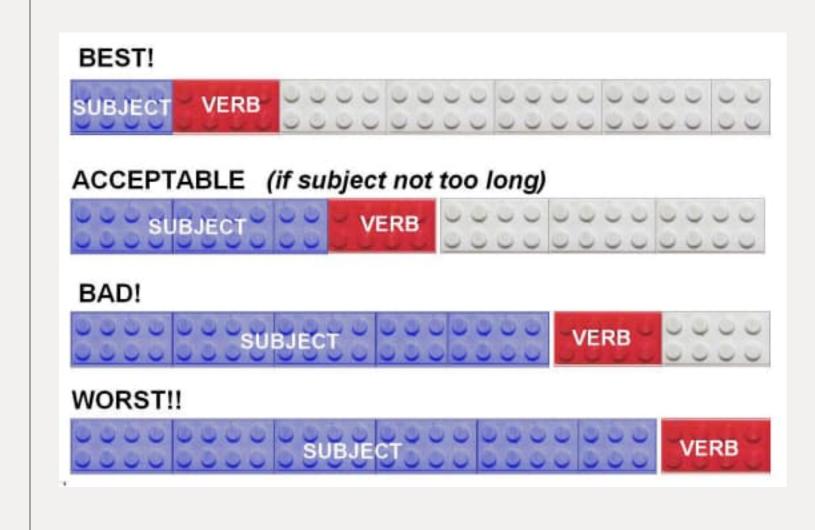
- In principle, the introduction is **like the abstract, only broader in scope**, and more detailed. The introduction generally describes the following:
 - a description of the background of the field of study, what similar work others have already done, as well as an overview of the study,
 - the goals of the study,
 - the primary research question and the sub-problems in the line of inquiry, and
 - the scope and constraints of the study along with the main concepts involved.
- Although the introduction is a general description of the study, be concise and avoid writing a lengthy introduction. A concise introduction need not have any subsections.

Elements of the Introduction



- The introduction explains the reasons for the research and what it aims to achieve. It also gives a brief overview of the methodology used and key results.
- The first paragraph entices people to read your thesis. It should answer the following questions:
 - What is your thesis about?
 - Why is this topic important to study right now?
 - Why is it important in general?
- The **second paragraph** briefly presents the key findings of previous studies.
- The **third** one explains what previous research has not taken into consideration or examined. In other words, it explains why your study is necessary.
- Conclude your introduction by relating the *objectives*, research problem, research questions, *limitations* and *thesis structure* briefly.

Light-Before-Heavy Principle



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.

Thesis Structure

| • analyze | discuss | identify | report | |
|----------------------------|------------|----------|-----------|--|
| | ovelvete | | | |
| • assess | evaluate | outline | review | |
| • compare | examine | present | explore | |
| | . . | | | |
| define | explain | propose | survey | |
| • describe | validate | provide | summarize | |
| | | | | |
| | | | | |

Peer Review



Significant

- "Students' engagement in a peer feedback process improves their writing performance as compared to when no feedback is provided at all."
- "Students improve their writing performance more after having engaged in peer feedback than after having engaged in a form of self-assessment."

Mixed

- "Students' writing performance does not appear to be differentially affected by peer feedback and feedback from teaching staff"
- "There did appear to be an upward trend in writing improvement as the number of peers increased, but small sample sizes limited the generalizability of this trend."

Bart Huisman, Nadira Saab, Paul van den Broek & Jan van Driel. (2019). The impact of formative peer feedback on higher education students' academic writing: a Meta-Analysis.

4-Step Feedback Loop The writer states one thing that they did well

The readers states one thing that the writer did well

The writer states one thing that they want to improve

The readers states one thing that the writer could improve

Summary

- The Introduction is a more detailed version of the abstract
- It normally contains 5 elements:
 - Background information on your topic and why its important or relevant
 - Reference to a few previous studies that are closely related to your thesis
 - An explanation of a gap, unresolved problem, or need for the work in your thesis
 - A statement of the goals, research questions, scope, and constraints of your thesis
 - An overview of the thesis structure
- It should be concise but easily comprehensible by a nonexpert, educated audience
 - The entire thesis should apply the Light-Before-Heavy principle to ease comprehension.

Preparing for Workshop 2



• Feel free to add comments to any area you want me to focus my feedback on.

Feedback Submission status

1 Introduction

In the ever-evolving landscape of computing, the demand for increasingly powerful applications is surging. However, this pursuit of computational prowess comes at a cost — power consumption. Even in standby mode, complex software and hardware systems continue to draw significant electrical power. In response to this dual challenge of performance and power eficiency, this work endeavors to tackle the issue of power consumption by harnessing the potential of hardware perfor the pregisters and a power management unit (PMU) tasked with monitoring these registers.

In recent years, the relentless progression of integrated circuit technology has ushered in an era of unprecedented complexity and capability in modern processors [1]. The quest for higher performance and energy eficiency has driven processor designers to embark on a journey of innovation, gradering novel approaches to optimize power



