

'Oberseminar' Optimization / OR

Literature research and writing a 'literature' section

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Exercise: Question 1

Form groups of ≥ 2 students. In each group, there should be 1-2 students who have brought excerpts of their thesis draft/proposal.

Choose one thesis draft/proposal to start with

Read highlighted part on **research question** and **methodological approach**

Group members (except author) brainstorm on the question:

1.) What should the author find out (from the literature) before delving into the research?

Please formulate questions. **The authors are advised to take notes.**

Switch roles after 7 minutes.

After that, we collect questions on the board.

Possible questions to answer in the 'Related Work' section

- Certificate of relevance
- Classification of problems
- Which quality metrics/evaluation criteria have been used before?
- Which methods have been used before?
- What are problems/downsides of these methods?
- Classification of methods
- Why this method?
- Are there benchmark instances?
- What kind of instances do others use for testing their methods?

Exercise: Question 2

Start with the first thesis draft/proposal in your group.

The author selects a question from previous exercise question.

2.) How would you proceed to find answers to the question?

- What could be *prompts* for Google Scholar?
- Where else would you look, who would you ask?
- What would be your *reading strategy*?

The authors are advised to take notes.

Switch roles after 7 minutes.

After that, we discuss difficult/open issues on the board.

Exercise: Question 3

Start with the first thesis draft/proposal in your group.

Read the literature section of the draft/proposal.

3.) For each paragraph, answer the following questions:

- **Why is this paragraph here?** Which question (of the ones that you collected) does it address? Or does it address yet another relevant question?
- Is it clear (from the way that it is written) **which question is addressed?**
- Is there anything that the author could do to **underscore the relevance** of the information conveyed in the paragraph?

4.) Is there **anything missing** in the literature review? **The authors are advised to take notes.**

Switch roles after 7 minutes.

After that, we discuss difficult/open issues on the board.

Homework

- Improve your literature section based on the new ideas
- Would you also like to improve the phrasing of your research question and methodological description in your introduction?