

Peer review (scientific writing: research reports & theses)

Courses on research communication and methodology cover many methods, but in any given research project students need to choose only a few to solve a research problem they come up with. Small-scale research assignments and theses are examples of where this knowledge can be applied. Peer review process further exposes students to the variety of research methods in application to different research problems and allows to critically evaluate them.

- **Thesis peer review process (SciPro)**

In SciPro, peer reviews are administered via checklists with questions that students can go through and answer by adding their comments in the corresponding fields. Several options are available depending on what kind of advice and insight students want to receive, and the checklists can be based on, for example:

- overall design of the project (empirical research or design science),
- stage of work (introduction, problem statement, research questions, methodology; data collection and data analysis; discussion and conclusion).

As soon as a review is complete, a student who requested it can see it. The number of peer reviews one wants to receive equals to the number of peer reviews they have to complete themselves. In other words, the more feedback one wants to get, the more feedback they need to provide.

Example of a checklist for peer review of a thesis with a completed draft of its initial part (introduction, problem statement, research questions, and methodology):

1. Are the background, aim, problem statement, research questions, methods and theory all in alignment? (yes/no/partly)

Motivation:

2. Is the background relevant and have enough references to previous studies? (yes/no/partly)

Motivation:

3. Are selected methods and theories relevant and justified? (yes/no/partly) Motivation:

4. Is the motivation of selected data collection method(s) sufficient? (yes/no/partly)

Motivation:

5. Are alternative data collection methods discussed and excluded on logical grounds? (yes/no/partly)

Motivation:

6. Are sample strategy and size relevant and sufficient? (yes/no/partly)

Motivation:

7. Are the methods and theories for analysis of data relevant, justified and sufficiently described for practical use? (yes/no/partly)

Motivation:

8. Are the concepts of validity and reliability understood and discussed in depth? (yes/no/partly)

Motivation:

9. Are ethical issues identified? (yes/no/partly)

Motivation:

10. Are strategies for dealing with ethical issues described relevant and sufficient? (yes/no/partly)

Motivation:

- **A detailed checklist focusing on report structure** that can be used for peer review of final drafts: <https://www.elsevier.com/connect/how-to-review-manuscripts-your-ultimate-checklist>
- **General recommendations for good peer review practice in scientific writing (for students):**
 - Provide useful critique and constructive feedback so that the author can improve his or her thesis.
 - Remember, it is not a finished manuscript but a work in progress. You can help improve the quality.
 - Do not waste your time, the author's time and the supervisor's time by doing it superficially. Go deeper; analyse the work according to a given checklist, your methodological skills, and creativity.
 - Go beyond the text, try to see what alternative solutions can be used. Can you provide some interesting ideas, URLs or reading material to the author?

- Peer-review process is between peers. However, supervisors have access to these and will be able to check the quality of your reviews. By providing good reviews you demonstrate that you understand the research concepts, theories, and the subject matter.

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