

Task 13-1: Final report

Publication is the final and a very important step in a research process. Write a final report on your survey study with the help of your notes from the previous practice sheets. You have until the end of July, and this task is worth **6 points** (instead of the usual 3).

The report must adhere to the following structure:

1. Introduction

- Explanation of the context.
- Research question: description, justification of relevance, and motivation.
- State and explain your hypotheses.
- Give an overview of the structure of the rest of the article.

2. Related Work

- Discussion of other possible research questions and other possible empirical methods for this area of interest.
- Mention and cite related studies in this area.

3. Method

- Description of the most important considerations for the questionnaire’s design (incl. discussion of problems): Formulation and order of questions, scale types, relevance as to the hypotheses
- Short description of the recruitment method for participants, including a characterization of your target group.

4. Data Analysis & Results

- Number and characterization of respondents.
- Description of the approach for the data validation and analysis, short explanation of important scripts you used.
- Description of the considerations and the results of your search for scientific statements and correlations; possibly with quantitative results and/or graphic visualizations.

5. Conclusions

- Summary of the most important insights from the analysis and answer to the research question with respect to your hypotheses. If answering your research question is not possible, discuss why.
- Discussion of the threats to validity and the survey’s shortcomings as well as evaluation of credibility and relevance.

6. Reflection (*not usually part of research papers*)

- What did you learn from (or became aware of during) this project with respect to: choice and formulation of a research question, drafting and implementation of a questionnaire, recruitment of participants, data collection, evaluation, and drawing of conclusions?
- Evaluate your approach in view of the general approach for empiricism (see http://www.inf.fu-berlin.de/inst/ag-se/teaching/V-EMPIR-2018/11_generic_method.pdf).

7. Attachments

- Recruitment Letter
- Questionnaire
- Raw data and analyses scripts

The report does not need to be sophisticated in its formulation, but should have a **crystal-clear structure** and contain **all relevant information**.

The reports of all survey groups will be compiled and **published** as a so-called “technical report”. To facilitate this, please make sure your report meets the following formal requirements (remarks in *gray italics* explain their real-world justification):

- Use the provided \LaTeX template:
 - Git: <https://git.imp.fu-berlin.de/agse/teaching-empir-report>
 - Download as ZIP: <https://git.imp.fu-berlin.de/agse/teaching-empir-report/repository/archive.zip?ref=master>

(Using such a template is mandatory for journals and most conferences.)

- Write the report either in English or in German.

(This is common for German venues. Otherwise, English is the only option.)

- Each group member needs to write a particular part of the report; it is recommended to write whole sections or at least a few subsequent paragraphs. Make clear who wrote what (you may use initials, see demo document that comes with the report template).

(Usually, there is no such thing. If at all, the authors' order might give a hint.)

- Add the questionnaire and the recruitment letter as attachments. Refer to them in your report whenever helpful.

Make the raw data and your analyses scripts available online and provide a link in your report. Make sure your download package is self-explanatory and your analyses can be redone easily on any machine with an up-to-date R setup.

*(The keyword here is **Open Science**, which entails making your data and your process accessible to the public instead of just publishing the outcome.)*

- Approximate size (without the attachments): 1,500 to 2,000 words, not much longer.

(Actual scientific venues may have strict page restrictions. Exceeding these limits, or not adhering to the prescribed format/layout will lead to a “desk rejection”, i.e., the manuscript is turned down immediately without any prior review.)

A few words on the technical side of writing such a document: Instead of employing a “Dropbox-driven” process, you may want to back up your work with a Git repository. Our IT staff offers a GitLab instance for all department members and students at <https://git.imp.fu-berlin.de>. You may start your work by cloning the template repository mentioned above.

The Gold Standard would be a report document which automates all steps, from raw data to final illustrations and tables. (Meaning: It's nice to have, but don't spend too much of your time on technical issues. The written word in the report itself and providing all the necessary pieces to follow your steps is more important.) A repository could have the following layout:

```
/report
  agse-empir-report.cls      # the LaTeX class file
  report.Rnw                 # main file for the report
  01_introduction.tex        # one file per section to enable concurrent work
  02_related_work.tex        # some of which are TeX files
  03_method.tex              # ...
  04_analysis_results.Rnw    # others contain knitr snippets to embed R code
  05_conclusions.tex         #
  06_reflection.tex          #
  /attachments
    recruitment_letter.pdf   # inline attachments
    questionnaire.pdf        #
  /data
    raw_data.csv             # the raw data from the survey server
    analysis.r               # machine-independent R scripts for the analysis
  README                     # minimal documentation of the repo's files
  report.pdf                  # the final report
```

See the demo file that comes along with the template for examples how to embed R code and output in \LaTeX .