Writing Scientific Reports: Guidelines

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Bielefeld University Nov 20, 2025

Form



- ► Word processor:
 - ► LaTeX
 - ► Word
 - ► Anything similarly applicable is Ok, of course
- ► Simple, clear layout
 - ► The content is important
 - Layout should support understanding it
- ▶ Clear structure
 - Use sections, subsections, and so or



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- Consistent layout of text elements
 - ► For example, same style for definitions throughout
 - ► No unmotivated switching of style or fonts
- ► Support understandability
 - Keep sentences short (this is not a writing contest in general)
 - Be clear, avoid ambiguous or vague descriptions
 - Avoid unstructured, long paragraphs
 - Do not make too many words if other means are available
 - Use examples
 - Use figures (likely re-used from presentation)
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Structure



- ► Title page
 - ► Title
 - ► Name of the author
 - ► Name of seminar
 - ► Appropriate date and time
- ► Introduction
 - ► Motivate the contents ("Why")
 - Outline related work that matters: the scientific foundation of the "Why"
 - ► Tell what will be discussed in the following ("What")
 - Brief description of sections in the following (optional)



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- ► Problem definition
 - Provide a clear, formal description of the problem you address in the following
 - ► The formal summary of the "What"
- Methods
 - Provide all theory in sufficient formal detail
 - Provide all algorithms in sufficient formal detail
 - Mention anything else methodical that matters in practices
 - Reproducibility is key



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► Evaluation

- Describe the data
- ▶ Describe the (likely computational) experiments that were run
- Refer back to Methods wherever needed
- Again, reproducibility is important

Discussion / Summary / Outlook

- Discuss the results achieved in a larger context
- Summarize achievements
- ► Mention open problems that remain
- Outline possible future research that may help to overcome remaining issues

► Literature

- Cite everything from which you draw in the text
- List all cited work at the end of the report



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Content



- ► Logical coherence
 - Content provided optimally builds on contents previously provided (but not on contents to be provided later)
 - Mention things that matter as closely as possible to where they are needed
 - Again: Introduction, Contents, Summary
- ► Work out and stress a main message
 - Provide main message in the Introduction
 - Keep particular focus on it in all that follows:
- ► Keep things consistent and as simple as possible
 - Write only what you understand
 - "Lying" or "hiding" no longer allowed though; all necessary details to be provided



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Thank you for listening!

