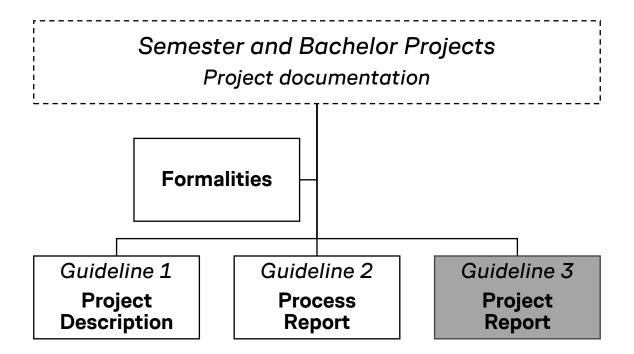


Project Report

VIA ENGINEERING



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About this document

The formalities presented here are valid across all of VIA Engineering and describe requirements for the Project Descriptions, and Project and Process Reports.

This document is a part of a set of guidelines for project work in VIA Engineering. You can find more information about the guidelines in the document "**Problem-based Learning**, **VIA Engineering**". Applying these guidelines is mandatory for the documentation of project work at VIA Engineering.

In these guidelines you will find information about how to write a Project Report.

A Microsoft Word template is available for use.



Project Report: Content and purpose

The overall purpose of a Project Report is to communicate information which has been compiled during a semester project or bachelor project to a target audience. The Project Report should objectively document the outcomes and results of your project.

Unlike the Process Report, which is reflective and subjective, the Project Report requires a formal presentation characterised by academic writing, focusing on the technical and analytical aspects of your project.

It should clearly communicate the project's objectives, methods, results, and their significance, ensuring that all claims are supported by appropriate evidence and references.

IMRAD is an acronym for Introduction, Methods, Results, and Discussion, representing a standard structure for scientific research papers, which is also applicable to Project Reports. By adhering to the IMRAD structure, a Project Report becomes more coherent, transparent, and accessible to the scientific community and other stakeholders. The structure presented in these guidelines ensures that your Project Report follows the IMRAD format.



1. Abstract

An abstract is a shortened version of the report and should contain all information necessary for the reader to determine:

- 1. What are the aims and objectives of the project
- 2. What are the main technical choices
- 3. What are the results

Frequently, readers of a report will only read the abstract, choosing to read in detail the parts of the report that are most interesting to them. For this reason, and because abstracts are frequently made available to engineers by various abstracting services, this section should be written carefully and succinctly to have the greatest impact in as few words as possible.

Although it appears as the first section in a paper, most report writers write the abstract section last.

2. Introduction

Begin with a detailed introduction that sets the stage for your project. This should include, at a minimum, the problem statement from your Project Description, and could include other sections as well.

Provide necessary background information and the rationale for the project – you may reuse parts of the "Problem Domain", or parts of it, from your Project Description. Mention any relevant theories, frameworks, or previous studies that underpin your project.

Explain why this project is important both academically and in a real-world context. By adopting a holistic approach and integrating factors such as environmental, social, economic, and technological aspects, the project's significance is highlighted in a broader perspective.

3. Main Section

This section is the core of your project report, where you detail the work, you have carried out. It is designed to comprehensively document the key activities, methodologies, and outcomes of the project.



Different programmes might have different requirements for how this section should be completed. Always consult your supervisor and refer to the course description and/or course materials.

In general, it will encompass the following topics:

Methods

Indicate the methods or approaches you used to develop the solution. Explain why you chose them and how you applied them in the project.

Methods for gathering knowledge for the project may include the following:

- Review of existing literature and previous projects in the field.
- Investigation of current solutions.
- Data collection through measurements, tests, or surveys.
- Conversations with professionals who provide knowledge and data for the project.

Methods for analysis, design/construction, and testing may include the following:

- Application of theory, technologies, standards, and tools.
- Experiments.
- · Simulation.
- Physical models and prototypes.

Project activities

Specify the main activities involved in the project. This may include a range of actions, from data collection and analysis to construction or programming, depending on projects nature and discipline. Describe the activities clearly, indicating their purposes and how they contribute to the project's goals.

Results

Present the project's results or deliverables. Describe what was produced, discovered, or concluded, and support the results with data, drawings, programs, models, constructions, plans, or similar materials.

Consider the ethical aspects of your project as well. This means you should describe your ethical considerations, including how negative impacts from the project on the environment and involved



parties are minimized, and, if relevant, how consent for data collection and other activities was obtained.

4. Discussion

This section is where you interpret your results. Reflect on your results by examining how they align with your initial hypotheses, expectations, and the overall objectives of your project. Consider whether the outcomes were anticipated or if there were any surprises, and discuss the potential reasons behind these findings.

Discuss the implications of your findings. Explain the significance of your results, highlighting any advancements or new insights they provide. Consider how your work adds to the existing body of knowledge and what future research might build upon it.

Be critical with your results by evaluating their validity and reliability. Engage in critical thinking to assess the strengths and weaknesses of your study, and consider alternative explanations or interpretations of your data.

Only include objective aspects in this chapter of the Project Report, reserve subjective discussions for the Process Report. Maintain an objective tone by focusing on factual and evidence-based analysis aoiding personal opinions or anecdotes.

Consider the limitations of your study and their potential impact on the results. Acknowledge any constraints or weaknesses in your methodology, data, or scope that could affect the validity or generalizability of your findings. Discuss how these limitations might influence the interpretation of your results and suggest ways future research could address these issues.

5. Conclusion and Recommendations

Conclude your report by summarizing the main findings and their broader implications.

Briefly recap the key results and what they signify.

Provide recommendations based on your findings, which could be directed at potential future research or practical implementations.



6. References

Supply references to all sources used in the report, use the APA standard.