# Assessment of the Master's thesis

This document describes the assessment sections of Master's theses and the descriptions of their assessed grades 1 to 5, which are verbally referred to as sufficient, satisfactory, good, very good, and excellent.

There are more assessment sections than in any of the earlier guidelines, i.e. in the current assessment guidelines for the Master's thesis in Technology and the Master's theses in Computer Science and Science. New sections have not been added, however bundled things have been separated to make the assessment easier. Admittedly, a section may have previously existed only in some version of the earlier guidelines.

Attempts have been made to formulate the assessment guidelines so that the different types of work can be assessed with a single guide. For example, all pieces of work do not include measurements or statistical analysis, but there may be identifiable sources of error in the method or selection of interviewees.

# Research questions or objectives

The research questions here refer to a work that is a type of study. Objectives refer to a work where a new piece of hardware, software, mode of operation or a part of one is being developed.

- 1. The research questions or work objectives remain unclear.
- 2. The research questions or objectives are set unclearly, or they are limited.
- 3. The research questions or objectives are for the most part described clearly and defined suitably.
- 4. The research questions or objectives are described clearly and challengingly.
- 5. The work has challenging, clear research questions or objectives, and the different parts of the work form a balanced and defined logical entity in terms of the content.

## Extent and complexity of the work

- 1. The work is clearly more limited and easier than a work on a medium level.
- 2. The work is either more limited or easier than a work on a medium level.
- 3. The work is medium in scope and complexity.
- 4. The work is either broader or more demanding than a work on a medium level.
- 5. The work is clearly broader and more demanding than a work on a medium level.

#### **Research Methods**

- 1. No methods are used or they are used incorrectly.
- 2. The methods have been used incompletely or their choice has not been described or justified.
- 3. The methods have been presented, applied correctly, and selected to suit the problem.

- 4. The management of the methods is at a good level and their choices are well justified.
- 5. The choices of methodology and research methods are very well justified and have been applied with merit. The author has a good command of the methods and research methods relevant to the research questions and demonstrates exceptional maturity in conducting scientific research.

# Topic management and connection to theory

- 1. The connection to previous research and theory remains unclear. The topic has been studied only superficially and there are major shortcomings, inadequacies or errors in the handling of the topic throughout the work.
- 2. The context for theory and previous research remains partly unclear. There may be inconsistencies in the work.
- 3. The context for theory and previous research has been established and the work is outlined appropriately.
- 4. The work is very well linked to previous research in the field. The author demonstrates a good mastery of the subject.
- 5. The work is exceptionally well linked to previous key research in the field. The work is of wider public interest or has a significant novelty value: it can be made into, for example, a scientific publication or a patent.

## Analysis, conclusions and self-assessment

- 1. The conclusions are confusing or very limited, with clear errors and they are not substantiated properly. Possible sources of error in the study or measurements have not been analysed or the analysis is incorrect.
- 2. The conclusions are limited, or they contain unfounded conclusions or errors. Possible sources of error have been analysed only superficially. There are shortcomings in the processing of statistical results or measurements.
- 3. The conclusions are derived from key material. Sources of error affecting the results have been identified. Statistical results or measurements have been processed almost without error.
- 4. The conclusions are based on the material presented in the work. Sources of error affecting the results have been identified. Statistical results or measurements have been processed correctly.
- 5. The conclusions are well justified. The author critically evaluates their own work in terms of results, methods and measurements.

# Results of work and achievement of goals

1. There are no results or they are not clearly expressed. The results remain unclear and their significance or achievement of objectives cannot be properly assessed.

- 2. The results of the work are modest or partly unclear. All the objectives of the work have not been achieved and no justifications have been presented for this.
- 3. Objectives have been achieved or there is a valid reason for the shortcomings. The results of the work can be difficult to generalize.
- 4. Practically or scientifically interesting results. The results of the work can be generalised at least partly.
- 5. Significant practical or, in principle, publishable scientific results of general interest.

## Use of source material

- 1. The work is lacking in source material, the quality of the sources is poor or essential sources are missing. Shortcomings and errors when referring to sources or the use of referencing techniques are weak.
- 2. The source material is scarce, sources are mostly poor or incomplete. References to sources are incomplete or incorrect in places.
- 3. There is a reasonable amount of source material, the sources are mainly of good quality and comprehensive. The author is familiar with the reference technique.
- 4. The source material has been appropriately selected, is mainly of a high standard and has been well utilised.
- 5. The source material is comprehensive, of a high standard and critically selected, and has been utilized with merit and without errors.

## Structure, systematicity and balance

- 1. The work is fragile in structure and its parts are out of balance.
- 2. The work is schematic or the structure is disorganized and repetitive.
- 3. The structure is clear, the work progresses logically.
- 4. The work is well structured, it progresses logically and its parts are in balance.
- 5. The work is very well structured and balanced. The order of presentation supports the content of the work. The approach can open a new perspective on the topic.

## Language and readability

- 1. There are significant shortcomings in the use of language and form, which makes the work difficult to understand. The work is unpolished and stylistically confusing.
- 2. There are inconsistencies and shortcomings in the language and form of the work. The style of the text is not suitable for the thesis in all parts, but the work as a whole is a readable text.

- 3. The use of language and form is appropriate and largely flawless. The text is mostly easy to read. The writing style is suitable for the thesis.
- 4. The presentation style, form and use of language are almost flawless. The work is easy to read and in the style of a scientific text.
- 5. The author has a perfect command of the presentation style, form and the use of language. The work is linguistically easy to read and a fluent scientific text.

# Management of the thesis process and the author's independence

When assessing the prolongation of work, prolongation not due to the student must be taken into account.

- 1. The author's ability to work independently is insufficient and the performance of the work has required a particularly large amount of support from the supervisor or inspector. The work is typically clearly protracted.
- 2. The work has required a lot of support from the examiner or supervisor or has taken a long time to do.
- 3. The author has acted in a fairly self-directed way and within a reasonable timeframe.
- 4. The author has an independent grasp of the matter and the work has been completed within the specified schedule.
- 5. The student has done the work with remarkable independence and efficiently on schedule.

#### **Overviews**

The general overviews try to compile the previous sections so that there is also a description for the overall grade. These descriptions are "flat," as if all sections were at the same level.

#### **Overview 1**

The work is weak and the assignment is only partially understood. The work is modest in its questioning, its material is limited or the work as a whole is limited. There may be significant factual or formal errors, but the work still meets the criteria of a scientific thesis and is somewhat appropriately written.

#### **Overview 2**

The work is moderate and shows that the author was able to carry out the reported research problem and report it. The scientific approach is superficial or the work is otherwise incomplete or inappropriate in content. Student's own contribution is modest. The work does not meet the requirements in all respects, but still shows the necessary maturity.

#### **Overview 3**

The work is a good quality, normal thesis that meets the set requirements and does not contain significant errors. It is appropriately written, proceeds logically, and ends with clear results. The author is able to comment on research done by others. No notable weaknesses in form or language. The work is done independently, but there are no specific additional merits.

#### **Overview 4**

The work is meritorious. The methodological or theoretical approach of the work is mature and includes a significant independent contribution from the author. The work is pleasant to read, as it forms a coherent whole and the presentation is finished and flawless. The layout and use of the sources are impeccable. The study is very well done, it is linked to previous research in the field, but it does not have exceptional depth.

#### **Overview 5**

The work is especially meritorious. The author demonstrates special maturity, independent thinking and vision, and particularly good mastery of the topic and methods. The results are publishable, or some procedure has been significantly developed.

# **Final grade**

The final grade is not the average of the above sections. The emphasis of the items depends on the topic, content and internal emphases of the work.

In addition to the assessed sections, a free-form overall assessment is given. This statement may be short if the grade is clear based on the assessed sections. If the grade clearly does not fall on any level, this assessment justifies the grading. An excellent and a sufficient grade must always be justified in the overall assessment.