Research Master's programme Neurocognitive Psychology

Guidelines for Master's theses

September 2024

Dear students and supervisors,

this document intends to give comprehensive information about Master's theses performed within the programme Neurocognitive Psychology and should help both, students and supervisors, to better understand the expectations in content and form. The information should be understood as guidelines, but not as strict rules in all aspects. Please be aware that individual arrangements between student and supervisor may deviate from the information given here. The guidelines apply to internal and external theses.

Module description

The Master's thesis module (mam) consists of 30 credits for (independently) performing and writing an experimental thesis on a topic in cognitive neuroscience (27 CP) and the oral defence of the work (3 CP). The entire thesis should have a total workload of 900 hours (which is the equivalent of 24 weeks full-time work) and should be completed within 6 months.

Students will demonstrate that they are able to perform a psychological or neuroscientific experiment and/or analyse data originating from such experiments by means of methods according to contemporary scientific standards. Metaanalyses are accepted if they were conducted by means of up to date tools for data extraction and analyses, according to best practices outlined in relevant community guidelines, such as for example Cochrane. In addition, the students will demonstrate that they are acquainted with the necessary methods and can present their results orally and in written form. The students work on a given topic in cognitive neuroscience using literature research and the appropriate experimental methods. The preparation of the thesis is accompanied by regular participation in the lab meetings of the groups in which the thesis is performed. Students present their study design at the beginning of their thesis preparation and their results towards the end. In addition, they listen to the presentations of the other lab members and students in the group.

The most current version of the module description can always be found in StudIP.

Formal procedures

The Master's thesis should be performed at the end of the studies. Students can only start their thesis if they have completed at least 60 credits in the programme Neurocognitive Psychology including the module psy240 (or psy241) Computation in Neuroscience.

Students need to find supervisors and a topic for their thesis autonomously. They can either perform the thesis within the Department of Psychology (internal thesis) or at an external institution (external thesis). Usually, one supervisor needs to be a professor of the Department of Psychology. In exceptional cases, two staff members of the Department of Psychology can supervise internal theses. In this case, the head of the laboratory, in which the work will be carried out, needs to formally agree to the supervision.

For internal theses: In case one of your supervisors is not listed on the list of examiners for the study programme Neurocognitive Psychology https://uol.de/fk6/studium-lehre/pruefungsberechtigte-der-fakultaet-vi, he or she additionally has to sign the form 'Genehmigung Prüfer_ Approval examiner' which you can find on the course website.

If students perform their thesis externally, they need to follow additional rules as explained in the document 'Rules for external Master's theses'. In short, you need to send a short abstract of your planned thesis to Kerstin Bleichner who will allocate an internal supervisor (professor and laboratory head) to your thesis. This internal supervisor needs to agree with your topic before you start. The external supervisor needs to

have a doctoral degree if he or she is not member of the School of Medicine and Health Sciences, University of Oldenburg.

Students are free to choose the starting date of their thesis in agreement with their supervisors. This starting date does not have to be the semester start! Theses must be registered with the examination office in the beginning. Please use the official form, which you can find on the website of the examination office.

Apart from formal reasons, registering your thesis in the beginning helps you and your supervisors to plan your thesis realistically and thoroughly and work determined on its success.

It is possible to ask for an extension if unforeseen circumstances occur that hinder you from finishing on time. Apart from sickness, which you prove to the examination office with a doctor's note, this may also be a setup that did not work as planned, etc. In all cases other than sickness, your supervisor needs to approve the extension in written form which you hand in to the examinations office. The programme coordinator Kerstin Bleichner can advise you on the process.

Registration in short:

- Find topic and supervisors (usually one professor from the Department of Psychology)
- Register thesis at examination office (additional forms to be potentially attached: 'External Master's Thesis – Request for Approval' or 'Genehmigung Prüfer_ Approval examiner')
- Confirmation of official approval will follow from the examinations office to your home address (check that your correspondence address in StudIP is correct). The deadline will be set to 6 months after approval date.
- In case the student does not receive confirmation of approval within 3 weeks, please contact the examinations board: pa_neurocogpsy@uni-oldenburg.de.

Where to find the documents/forms:

- 'Anmeldung der Masterarbeit / Application for Final Thesis': https://uol.de/en/no_cache/students/course-of-study/?tab=pruefungen&id_studg=545&cHash=5083579b6a5401a5af551d4d5e76082c
- 'Rules for external Master's theses including approval form': https://uol.de/en/psychology/master/course-overview
- 'Genehmigung Prüfer_ Approval examiner': https://uol.de/en/psychology/master/course-overview
- List of examiners: https://uol.de/fk6/studium-lehre/pruefungsberechtigte-der-fakultaet-vi

Attending lab meetings and presenting your work

Students have to regularly visit a Master's colloquium, which is usually the weekly lab meeting of the group they are working in. Please discuss with your (internal) supervisor how often and in which format you will have to present your thesis work in this colloquium. External Master's theses also need to be presented in Oldenburg at least once!

Supervision

Supervisors should make sure that the topic is adequate for a Master's thesis. They should help the student keeping track of the thesis progress. Students and supervisors should discuss the priorities they have. This can be e.g. finishing in time as a job is to be started or a more in-depth work on the topic as a publication is

aspired. They should also discuss and agree on the aspects of supervision (e.g. regular meetings, intermediate drafts of the thesis, trial defence).

Thesis format

According to the examination regulations, the thesis needs to be written in English!

To make life easier we provide students with a LaTeX template for the thesis. This template layout will be discussed in the module psy130 Communication of scientific results and will be explained in detail in the LaTeX workshop organized each year. Using this template is voluntary, but highly recommended. If you chose not to use it, you have to follow the formal requirements given in the leaflet of the examination office (appendices A and B).

We do not give strict rules for the length of the thesis. Your thesis should be written in the format of a manuscript for a research article. As long as necessary to thoroughly explain what you did, but as short as possible. Be concise and precise! Usually students need between 30 and 50 pages (without appendices) in the provided layout. Please find additional information on the expected content of a thesis in appendix C.

You need to comply with the guidelines for good scientific practice (appendix D)! Please remember that you need to mark contributions from others (e.g. programming scripts or if someone else collected the data). If you use generative AI, you need to document your use clearly.

Please discuss with your supervisor the option of checking your thesis with Plagscan in StudIP before you hand it in!

Handing in the thesis

Students need to hand in a digital PDF version of their thesis to the examinations office according to the information they will receive from the examinations office upon registration. Please find this information also in the appendix A in this document. Please ask your supervisors, whether they want a paper version of the thesis. If so, please deliver this paper version directly to the supervisor(s). Do not print paper versions without asking them first.

Grading of the written work and defence

The written thesis will be evaluated by the supervisor and an additional reviewer (90%). They will both individually assess the written thesis. They can use the grading scheme provided (see appendix E) or they are free to give their assessment in free text. Please discuss with your supervisor in the beginning whether he or she will use the provided grading scheme or whether individual criteria will be weighted differently. Supervisors hand in their assessment directly to the examination office usually until 8 weeks after submission of the thesis.

The oral presentation and defence of the thesis results will be also evaluated (10%) by both supervisors. The defence always takes place at the Department of Psychology. If necessary external supervisors can attend via video conference. Online defences are allowed if the student and both supervisors agree. Students should find a suitable defence date together with their supervisors well in advance.

The final defence of your thesis should be open to interested students/scientists. Therefore, please send your defence date, time, place, title and names of first and second supervisor to Kerstin Bleichner, so that your defence can be publicly announced on the course website. You are responsible that a room will be booked for your thesis defence (ask the secretary sekretariat.psychologie@uni-oldenburg.de or Kerstin Bleichner for help). In case of an online defence, please clarify with your internal supervisor(s) which room will be used.

Please note that you have to pass both, the thesis and the defence, to pass the entire module.

Data protection and intellectual property issues

In the beginning you have to discuss formal issues with your supervisor, e.g. who is in possession of the data, whether you need to hand in all scripts!

Most students will work with personal experimental data in their Master's theses. To comply with data protection regulations, these data need to be stored on university servers. Storing any data from your experiments on private computers or data storage media is forbidden!

Regulations regarding a 'semester on leave' if you want to perform an external thesis

A 'semester on leave' is possible only if

- **you do NOT want to take any courses in Oldenburg or take part in any exams.**
  Once you have the status 'semester on leave' you cannot take part in any courses or written or oral exams (including your Practical Project presentation and Master's defence) at the University of Oldenburg. This means you can also NOT HAND IN any reports or your Master's thesis while you have the status 'semester on leave'.

- **the amount of supervision here at the University of Oldenburg is limited to a maximum of 2 substantial contacts between you and your internal supervisor** (e.g. giving a presentation here at a lab meeting twice or discussing your project with your supervisor). If you need significant support from your internal supervisor, you have to be registered with the University of Oldenburg while you do your Master's thesis.

- **for your Master's thesis you are registered with the university where you perform your work** (e.g. as guest or exchange student). If a registration with the university is not possible, you will have to stay enrolled at Oldenburg University.

Appendix A: Rules for the thesis issued by the examination office

L E A F L E T

For writing of the final thesis (text)

Please observe the following when creating your final thesis:

- Use a word processing program (DIN A 4 – Format)
- Title page according overleaf example
- Title thesis has to be stated as indicated on the application
- Single and a half spacing; 3 – 4 cm left and right margin; 2 – 3 cm top and bottom margin
- Font and font size, e.g. Arial 11 or Times New Roman 12 or equivalent
- Precise naming of all sources and aids in the usual form
- All passages which are literally or analogously taken from other publications need to be indicated accordingly
- Table of Contents, List of Figures, List of Tables, and List of Symbols and Abbreviations need to be at the beginning
- Two copies need to be bound (glued bond or hardcover), one copy needs to be presented as a digital copy
- The following statement is to be handed in as the last page of the thesis and needs to be signed
    - For a single person:

      I hereby confirm that this thesis is entirely my own work. I confirm that no part of the document has been copied from either a book or any other source – including the internet – except where such sections are clearly shown as quotations and the sources have been correctly identified within the text or in the list of references.
      Moreover, I confirm that I have taken notice of the 'Guidelines for good scientific practice' of the University of Oldenburg

    - For a group:

      (Description of "the academic assessment of the single group members" based on the indication of single sections, page numbers, or other objective criteria, which allow a definite classification) - followed by the statement (in German) as above and signed by every student of the group.

One digital PDF copy of the final thesis needs to be handed in at the academic examination office in due time. Another electronic copy may be given to the library of the C.v.O. University of Oldenburg (see attached leaflet).

Appendix B: Title page (information from the examination office)

[optional additional logo for external theses] [Department logo]

Carl von Ossietzky Universität Oldenburg
University of Oldenburg

Department of Psychology

Master's Thesis

Title:

The title according to admission letter is to be mentioned here

Presented by: *Your Name*

First examiner: [Name with titles]

Second examiner: [Name with titles]

Place, Date: *Oldenburg,*

Appendix C: The Master Thesis – Expectations & Downfalls

Introduction

Presentation of the issue or phenomenon the thesis intends to examine, the context where the issue has arisen or the phenomenon is found, and references to previous research with particular emphasis on whether current knowledge is lacking or contradictory. *Common shortcomings: The issue is imprecisely defined or formulated incorrectly; references to previous research are incomplete.*

Rationale

The relevance, purpose and aim of the thesis, i.e. what one intends to achieve by increasing knowledge on the issue or phenomenon.
Common shortcomings: The purpose is not mentioned, not linked to previous research in the field or does not agree with what the work discusses.

Outline

An indication of what the reader can expect on the next pages and in which order.
Common shortcomings: The reader is left to guess.

Questions & Hypotheses
(against the background of relevant theories)

Research questions that require answers to satisfy the purpose of the thesis; hypotheses that are made on the basis of valid theories in the field or hypotheses in the form of innovative guesswork one wishes to test.
Common shortcomings: Absent or flawed research questions; not a good relation between the questions provided; poorly formulated hypotheses; questions that cannot be answered.

Methodology

Choosing an adequate method, materials and practical implementation based on the purpose of the study, its research questions and hypotheses.
Common shortcomings: Choosing a method and working with data that is inappropriate.

Results/Findings

Answers to the questions asked using the collected data.
Common shortcomings: Lack of logical relation between the results/findings presented and the question or hypotheses provided; confusion between results/findings and discussion; presentation of more data than what is relevant to illuminate the issue.

Discussion

Brief summary of the most important results/findings; whether or not they support the hypothesis or hypotheses. Critique of the methodology applied and the reliability and relevance of the results/findings; comparison with other research results/findings.
Common shortcomings: Conclusions that cannot be supported by the results/findings, such as guesswork without any basis in the study data; introduction of new questions and subsequent discussion of these.

Conclusion

Consequences of results/findings in relation to the formulated purpose, such as consequences for further research, development of new theories or practical application.
Common shortcomings: Conclusions not warranted by the results/findings or building on other data than what stems from the study; conclusion shows no connection to the rationale.

> think and work with cards
> prepare an outline with page / word count
> write what you do, but also write what you don't do
> always anchor your arguments and findings before you move on

Appendix D: Guidelines for good scientific practice

The Carl von Ossietzky University of Oldenburg is committed to good scientific practice.

Guideline for good scientific practice:
file://daten.w2kroot.uni-oldenburg.de/home/xema8503/Downloads/AM2022-065_Regulations_governing_principles_safeguarding_good_academic_work_EN.pdf

Amendment for the use of generative AI:
file://daten.w2kroot.uni-oldenburg.de/home/xema8503/Downloads/AM2024-043_Amendment_of_the_regulations_governing_the_principales_for_safeguarding_good_academic_practice_EN.pdf

- Highest Priority is given to honesty and truth in scientific work, in short the scientific fidelity
- Records, protocols, and data of experiments need to be recorded truthfully, unaltered, and completely.
- Results need to be verifiable and the confirmability of theoretical deductions need to be given at any time. This includes the meticulous storage of records, data (e.g. from experiments), or any other material. Insight into the particular approach must be possible and must be allowed on request, to allow verification of the results and the way these were obtained.
- For verification it is imperative that the exact sources used are indicated and a clear identification of quotation is mandatory. The use of text passages or ideas without identification is considered plagiarism (theft of intellectual property).
- On suspicion of scientific misconduct, the University of Oldenburg will review the case according the respective code of procedure[1]. If scientific misconduct is identified, the necessary action, including legal measures, will be taken.
- Creation or Use of incorrect statements in applications, e.g. for scholarships, is also considered scientific misconduct.

You should actively participate in the realization of good scientific practice during your studies and throughout your scientific career.

[1] Procedure for dealing with scientific misconduct (26.01.2000), official document
http://www.uni-oldenburg.de/uni/amtliche_mitteilungen/dateien/AM2000-01_Ordwissf.pdf

Appendix E: Grading Scheme

Overall Rating Master Module **- thesis 90%** **- defence 10%**	**Evaluation of Master's thesis without defence** (40% performance, 60% written report)	**Daily Performance**	**Evaluation of written work (without daily performance)**	**Evaluation of defence**
This is a calculation of the final grade with the grades you gave. It is only for your information. The examination office will formally calculate this grade!	This is the grade you have to send to the examinations office for the Master thesis. Please round to the nearest grade possible according to the examination regulations: 1,0; 1,3; 1,7; 2,0; 2,3; 2,7; 3,0; 3,3; 3,7; 4,0; 5,0	This is your evaluation of the daily work of the student. This grade is used to calculate the overall evaluation of the thesis in column B.	This is your evaluation of the written thesis. This grade is used to calculate the overall evaluation of the thesis in column B. If you are a second supervisor and you did not evaluate the daily work of the student, please send this grade to the examination office as evaluation of the thesis. Please round to the nearest grade possible according to the examination regulations: 1,0; 1,3; 1,7; 2,0; 2,3; 2,7; 3,0; 3,3; 3,7; 4,0; 5,0	This is the grade you have to send to the examinations office for the evaluation of the oral defence. Both supervisors have to agree on a joint grade. Please round to the nearest grade possible according to the examination regulations: 1,0; 1,3; 1,7; 2,0; 2,3; 2,7; 3,0; 3,3; 3,7; 4,0; 5,0
0,0	**0,0**	0,0	**0,0**	**0,0**

Remarks on the evaluation:

Adjustment options if needed: weighting of the performance and the written research report: adjust the formula in field B3.
PLEASE MAKE SURE TO INFORM THE STUDENT IN CASE YOU WILL USE ADJUSTED GRADING CRITERIA.

Authors: Arnold Moene, Mieke Latijnhouwers and others (Wageningen University, The Netherlands)
adjustments for the Master programme Neurocognitive Psychology, University of Oldenburg, Germany: Kerstin Bleichner

Rubric - MSc-research practice version: 4.0 (source: thesisinternship-rubric-v4.0_20220628.xlsm)

Criterion and subcriterion	Fill in this form only if you can judge the daily work of the student. In most cases, the second supervisor will not fill in this form. Please enter the assessment of the yellow categories in column M in the yellow fields with the drop-down menu so that the final grade is calculated. All yellow subcategories count equally to the final grade. The sub-criteria below the yellow categories are intended as an aid to evaluation. They do NOT have to be included in the assessment of the yellow subcategory in equal proportions! Therefore, there is no automatic calculation. Adjustment options if needed: - weighting of the individual yellow subcatagories: adjust the formula in field M5 PLEASE MAKE SURE TO INFORM THE STUDENT IN CASE YOU WILL USE ADJUSTED GRADING CRITERIA.										Assessment	Comments
grading	insufficient	sufficient			satisfactory			good			very good	
	5	4	3,7	3,3	3	2,7	2,3	2	1,7	1,3	1	
1. Performance 40%												0,0
1.1 Independence, initiative and creativity												
Independence	The student can only execute the tasks properly after repeated detailed instructions and with direct help from the supervisor.	The student needs detailed instructions and well-defined tasks from the supervisor and the supervisor needs to monitor the student to see if all tasks have been performed.			Student depends mainly on supervisor for setting out the task, but the student performs them mostly independently.			Student plans and performs tasks mostly independently, asks for help from the supervisor when needed.			Student plans and performs tasks independently and organises their sources of help independently.	
Initiative and creativity	Student shows no initiative or new ideas at all.	Student adopts initiatives and/or new ideas suggested by others (e.g. supervisor), but cannot motivate/explain the rationale of these initiatives/ideas themselves.			Student shows some initiative and/or together with the supervisor develops one or two new ideas on minor parts of the research.			Student initiates discussions on new ideas with supervisor and puts forward their own creative ideas on hypothesis formulation, design or data processing.			Student develops and implements innovative hypotheses, methods and/or analysis of information/data. Possibly the idea for the project has been formulated by the student.	
1.2 Commitment, perseverance and adaptivity												
Commitment/ perseverance	Student is not motivated. Student escapes work and gives up regularly.	Student has little motivation. Tends to be distracted easily and shows little perseverance.			Student is motivated at times, but often refers to the work as a compulsory task. Is distracted from research work now and then.			The student is motivated and shows ownership of the project. Overcomes an occasional setback independently.			The student is very motivated, shows ownership, and overcomes setbacks independently. Student goes at length to get the most out of the project (within the planned period).	
1.3 Receiving/handling and providing feedback												
Receiving & handling feedback	Student does not follow up on suggestions and ideas of the supervisor. Engages in a systematic defensive discussion to fend off feedback.	Student follows up on some suggestions and ideas of the supervisor without any critical reflection.			Student accepts feedback from supervisor. Incorporates most or all of the supervisor's feedback adequately but without much reflective discussion.			Student welcomes feedback from supervisor and asks for it when needed. Student reflects on feedback and incorporates changes after engaging in a discussion.			Student seeks and welcomes feedback from supervisor and other staff members or students. Student critically reflects on feedback, uses it as a starting point for further constructive discussion and proposes alternatives with goal of improving.	

Providing feedback (optional; only if several students perform a research project in the lab simultaneously)	Student does not provide feedback to others, even when asked for.	Student only provides feedback when asked for. Feedback is general, without supporting examples or without suggestions for improvement.			Student provides well-founded (with examples), specific feedback when asked for.			Student spontaneously provides balanced (positive and negative), well-founded (with examples), specific feedback .			Student actively engages in discussion with others to deliver balanced (positive and negative), well-founded (with examples), specific and constructive feedback. Student checks whether feedback is clear for receiver.		
1.4 Development of knowledge and skills													
	Knowledge and skills remain insufficient (in relation to the prerequisites) and the student does not succeed to take appropriate action to remedy this.	Students' progress in knowledge and skills is limited and requires extensive guidance by the supervisor.			The student adopts knowledge and skills as they are presented during supervision.			The student adopts knowledge and skills independently, and asks for assistance from the supervisor if needed.			Students explores solutions independently and seeks appropriate knowledge and skills required.		
1.5 Time management													
Feedback on report is only considered if this is implemented in group.	No time schedule made, or time schedule lacks all detail. The intermediate presentations in the lab meetings are not prepared/the student does not show up. The final report is not handed in for feedback as agreed upon.	No realistic time schedule, or repeatedly ignoring the time schedule, or mostly dependent on supervisor for keeping on track.The intermediate presentations in the lab meetings are not well prepared, so that lab members cannot follow. The final report is handed in for feedback with delay without good reason.			Mostly realistic time schedule, but no timely adjustment of time schedule if needed. The intermediate presentations in the lab meetings are prepared, but lack care. The final report is handed in for feedback, but still needs extensive work before final submission.			Realistic time schedule, with timely adjustments of time schedule but without reconsidering tasks. The intermediate presentations in the lab meetings are prepared . The final report is handed in for feedback at the date the supervisor set.			Realistic time schedule with timely and effective adjustments of both time and tasks if necessary. The student actively schedules intermediate presentations in the lab meetings and prepares them excellently. The student actively arranges time lines for handing in the final report for feedback and hands in a near-to finish version.		
1.6 Performance on research/project tasks: good scientific conduct													
	Student repeatedly makes mistakes or performs tasks inaccurately. Student violates aspects of integrity.	Student does not pay sufficient attention to details. Student does not show awareness of aspects of integrity like transparency and responsibility.			Student pays some attention to details. Student is mostly transparent in their choices and acts responsibly towards people and property.			Student pays attention to details. Student is transparent in their choices and acts responsibly towards people and property. Student is able and willing to discuss integrity.			Student is conscientious and efficient. Student is transparent in their choices and acts responsibly towards people and property. Student actively inquires, and initiates discussions, about integrity.		
1.7 Execution of research													

Only consider the type(s) of activity relevant for the research under consideration: Study or experiment, data analysis, model or method development	Study or experiment: Student is not able to prepare for and/or execute a study or experiment based on detailed instructions in protocol. Data analysis: Student is overwhelmed by data. Is not able to use a spreadsheet program or any other appropriate data-basic processing program. Model or method development: Student is not able to make any modification/addition to an existing model/method.	Study or experiment: Student is able to follow detailed instructions to some extent, but errors are made often, invalidating (part of) the study or experiment. Data analysis: Student is able to organize the data, but is not able to perform quality checks, transformations and/or analyses, or student can do simple checks but not organize data themselves. Model or method development: Student modifies an existing model/method, but errors occur and persist. No validation.			Study or experiment: Student is able to follow detailed instructions (without critical assessment of sources of error and uncertainty). Data analysis: Student is able to organize data and perform some simple checks; but the way the data are used does not always clearly contribute to answering of the research questions. Model or method development: Student is able to make minor modifications (say a single formula or step) to an existing model/method. Validation is superficial or absent.			Study or experiment: Student is able to judge the setup of an existing study or experiment and to include modifications if needed. Takes into account sources of error and uncertainty appropriately (quantitatively where applicable). Data analysis: Student is able to organize the data, perform commonly used checks and perform some advanced analyses on the data. Model or method development: Student is able to make major modifications to an existing model/method, based on literature and/or own analyses. Validation using appropriate (statistical) measures.			Study or experiment: Student is able to setup or adapt a study or experiment tailored to answering the research questions. Appropriate (quantitative where applicable) consideration of sources of error and uncertainty. Execution of the study / experiment is flawless. Data analysis: Student is able to organize the data, perform thorough checks and perform advanced and original analyses on the data. Model or method development: Student is able to develop a model/method from scratch, or add an important new part to an existing model/method. Excellent theoretical basis for model/method as well as use of advanced validation methods.		

Criterion and subcriterion	Each supervisor gives a grade independently for the written thesis. The examinations office calculates the final grade. Please enter the assessment of the yellow categories in column M in the yellow fields with the drop-down menu so that the final grade is calculated. All yellow subcategories count equally to the final grade. The sub-criteria below the yellow categories are intended as an aid to evaluation. They do NOT have to be included in the assessment of the yellow subcategory in equal proportions! Therefore, there is no automatic calculation. Adjustment options if needed: - weighting of the individual yellow subcatagories: adjust the formula in the field M4. PLEASE MAKE SURE TO INFORM THE STUDENT IN CASE YOU WILL USE ADJUSTED GRADING CRITERIA.											Assessment	Comments
grading	insufficient	sufficient			satisfactory			good			very good		
	5	4	3,7	3,3	3	2,7	2,3	2	1,7	1,3	1		
2. Research report 60%												0,0	
2.1 Context, goals and delineation of research/project													
Context	No context of the research given or the context described is nonsensical. No theoretical underpinning.	Context of the research is described in very broad terms. There is no logical link between the described underlying theories/literature and the research questions / hypothesis or the description shows serious errors.			Context of the research is correct but limited in width and depth (e.g. does not go beyond the information provided by the supervisor). The relevant theory/literature is used, but the description is minimalistic or shows occasional errors.			Context of the research is defined well and to-the-point and identifies the knowledge gap. The research questions / hypothesis emerge directly from the described theory/literature.			Context of the research is defined sharply, to-the-point, funnelling from the broader context to the well-defined knowledge gap. The research questions / hypothesis emerge directly from the described theories/literature relevant to the research at hand. Novelty and innovation of the research are indicated.		
Research questions or hypothesis	There is no researchable research question or testable hypothesis and the delineation of the research is absent.	Most research questions are unclear, or not researchable. Hypothesis is not specific and/or testable. Rationale of research is not well-defined. Delineation of the research is weak.			Rationale of research and research questions / hypothesis are mostly clear, but could have been defined sharper at some points. Delineation of the research is provided.			Rationale of research is clear. The research questions are researchable, hypotheses are testable. A clear delineation of the research is provided.			Rationale of the research is well-defined and linked to the context. The research questions are researchable, clear and formulated to-the-point. Hypothesis is specific and testable. Research is clearly delineated, also vis-a-vis existing research.		
2.2 Description and choice of methods and processing of information/data													
	No description of research methods and analysis of the information/data, or description is unintelligible. Methods and analysis are not appropriate.	Description of research methods and analysis of information/data is minimalist,. incomplete or unclear. Or some of the methods and analysis used are not appropriate.			Description of methods and analysis of information/data is mostly complete, but lacks clarity or detail at some points, hampering exact repetition of the work. Some minor parts of the methods and analysis used are not to most appropriate.			Description of methods and analysis of information/data is clear and complete. All methods and analysis are appropriate. Level of detail allows for a close to exact repetition of the work.			Description of methods and analysis of information/data is clear, complete and efficient/to-the-point. Methods and analysis of information/data are all appropriate. Level of detail and quality of description enables exact repetition of the work.		
2.3 Presentation of data and results													

	Based on the description the reader is not able to understand what results were achieved.	Results or their connection to the research questions / hypothesis are unclear. Text, figures, graphs, tables etc. contain several flaws.			Results are enumerated understandably and correctly, and are connected to the research questions / hypothesis. Text, figures, graphs, tables, etc. are appropriate and show few flaws.			Results are presented correctly and efficiently. Text, figures, graphs, tables etc. are linked to the goals of the research questions / hypothesis in a logical way. Text, figures, graphs, tables, etc. are appropriate and correct..			Results are presented flawlessly and efficiently, with a clear storyline connecting the various results. Text, figures, graphs, tables etc. are well-chosen or original, and efficiently guide the reader to understand what results were achieved in relation to the research questions /		
2.4 Evaluation of results													
Critical evaluation of own research	No reflection on the results of the research, or discussion only touches invalid, trivial or overly general points of criticism.	Student identifies only some points of weakness in the research or weaknesses which are in reality irrelevant or non-existent.			Student indicates weaknesses in the research, but impacts on the conclusions are not weighed relative to each other.			Student indicates all weaknesses and strengths in the research, evaluates their impacts on the conclusions, and weighs their impact on the conclusions relative to each other. Furthermore, (better) alternatives for the methods used are indicated.			Student indicates both strengths and weaknesses in the research, evaluates their impacts on the conclusions and weighs and weighs their impact on the conclusions relative to each other. Furthermore, original/innovative (better) alternatives for the methods used are specified.		
Confrontation with literature	No confrontation with existing literature	Only marginal confrontation vis-a-vis existing literature, or confrontation with irrelevant existing literature.			Only most obvious conflicts and correspondences with existing literature are identified. The value of the study is described, but it is not related to existing research.			Results are confronted with existing literature and a distinction is made between minor and major conflicts and correspondences. The added value of the research relative to existing literature is identified and weighed.			Results are critically confronted with existing literature. and distinction is made between minor and major conflicts or correspondences. The relative weight of own results and existing literature is assessed.The contribution of his work to the development of scientific concepts is specified.		
2.5 Clarity and justification of conclusions													
Conclusions	No link between research questions / hypothesis and the results plus conclusions.	Conclusions merely repeat results, or conclusions are not substantiated by results, or conclusions only address part of the research questions / hypothesis.			Conclusions are linked to the research questions / hypothesis, but not all research questions / hypothesis are addressed. Some conclusions are not substantiated by results or merely repeat results.			Clear link between research questions / hypothesis and conclusions. All conclusions substantiated by results. Conclusions are formulated exact.			Conclusions are well-linked to all research questions / hypothesis and substantiated by results. Conclusions are formulated exact and concise and the line of argumentation is clear, logical and convincing. Conclusions address knowledge gaps, and proposal for future research is included.		

Recommendations	No recommendations given.	Recommendations are trivial.			Some recommendations are given, but the link of those to the conclusions is not always clear.			Recommendations are to-the-point, well-linked to the conclusions and original.			Recommendations are to-the-point, well-linked to the conclusions, original and are extensive enough to serve as project description for a new student project.	
2.6 Writing skills												
Structure and formatting	Document is badly structured. In many cases information appears in wrong locations. Level of detail is inappropriate throughout.. Paragraph structure is illogical and inhibits correct understanding of the text. The formatting is inconsistent throughout the document and inhibits reading.	Main structure is correct, but lower level hierarchy and ordering is illogical. Some sections have overlapping functions leading to ambiguity in placement of information. Level of detail varies widely (information missing, or irrelevant information given). Structure within paragraphs and transition between paragraphs are often unclear or illogical. The formatting is inconsistent in several places throughout the document.			Main structure is correct, placement of material in different chapters is somewhat illogical in some places. Level of detail could be improved in some places (irrelevant information given). Most paragraphs have a clear function. Transitions between paragraphs are predominantly clear and logical. Errors in structure do not inhibit correct understanding. The formatting is consistent.			Main structure is correct , chapters and sections have a clear and unique function. Hierarchy of sections is correct. Ordering of sections is logical. All information occurs at the correct place. Level of detail is appropriate. Paragraphs fulfil a specific function. Transitions between paragraphs are clear and logical. The formatting is consistent.			Well-structured, and clear and concise throughout. Very readable report where the structure helps to convey the storyline of the report ; structure, formulation and style facilitate understanding of the report. Paragraphs each fulfil a specific function, have a clear argumentation. Transitions between paragraphs are clear and logical; creating a clear line of argumentation. The formatting is consistent and facilitates reading.		
Fluency of writing	Formulations in the text are often incorrect/inexact inhibiting a correct interpretation of the text. Many spelling/grammar errors; inhibiting correct understanding of the text.	Vagueness and/or inexactness in wording affect the interpretation of the text. Many spelling/grammar errors, sometimes inhibiting correct understanding of the text.			Formulations in the text are ambiguous in some places but this does not inhibit a correct interpretation of the text. Spelling/grammar errors are rare, and do not inhibit correct understanding of the text.			Formulations in text are clear and exact, as well as concise. No spelling/grammar errors and readability of text is good.			Textual quality of document is such that it could be acceptable for a scientific or professional journal. No spelling/grammar errors; optimal use of grammar resulting in highly readable text.		
Citing and referencing (literature sources and use of generative AI)	No literature cited or no proper reference list. The use of generative AI is obvious, but not indicated.	Reference list lacks information for many sources and/or literature is not or incorrectly referenced in the text.			Reference list contains literature used, but either referencing in text contains some errors, or information about sources is incomplete or incorrect in some cases.			Correct style of referencing in the text as well as in the reference list. Style is applied consistently throughout. All sources are traceable.			Correct style of referencing in the text as well as in the reference list. Style is applied consistently throughout. All sources are traceable. Style is appropriate for the type of document and the field of study.		

Criterion and subcriterion	The grade for the defence is given by both supervisors together! Please enter the assessment of the yellow categories in column M in the yellow fields with the drop-down menu so that the final grade is calculated. All yellow subcategories count equally to the final grade. The sub-criteria below the yellow categories are intended as an aid to evaluation. They do NOT have to be included in the assessment of the yellow subcategory in equal proportions! Therefore, there is no automatic calculation. Adjustment options if needed: - weighting of the individual yellow subcatagories: adjust the formula in the field M4. PLEASE MAKE SURE TO INFORM THE STUDENT IN CASE YOU WILL USE ADJUSTED GRADING CRITERIA.										Assessment	Comments
grading	insufficient	sufficient			satisfactory			good			very good		
	5	4	3,7	3,3	3	2,7	2,3	2	1,7	1,3	1		
3.Oral presentation and defence (10% of final grade)												0,0	
3.1 Content and level of presentation													
Presentation of data and results	Based on what is presented the audience is not able to understand what results were achieved.	Results or their connection to the research questions / hypothesis are unclear. Text, figures, graphs, tables etc., and/or how they are explained by the student, contain several flaws.			Results are enumerated understandably and correctly, and are connected to the research questions / hypothesis. Text, figures, graphs, tables, etc., and how they are explained by the student, are mostly appropriate and show few flaws.			Results are presented correctly and efficiently, and are clearly linked to the research questions / hypothesis. Text. figures, graphs, tables, etc., and how they are explained by the student, are appropriate and correct.			Results are presented flawlessly. Text, figures, graphs, tables etc., in combination with students explanation, efficiently guide the audience to understand what results were achieved in relation to the research questions / hypothesis.		
Clarity and justification of conclusions	Student provides no link between goals, results and conclusions.	Student presents no clear conclusions, merely repeats results or does not substantiate conclusions by results, or only addresses part of the research questions / hypothesis.			Student links conclusions to the research questions / hypothesis but does not address all research questions / hypothesis. Some conclusions are not substantiated by results.			Student makes clear links between all research questions / hypothesis and conclusion and substantiates all conclusions by results. Formulates conclusions exact.			Conclusions are well-linked to all research questions / hypothesis and substantiated by results. Conclusions are formulated exact and concise and the line of argumentation is clear, logical and convincing.		
Ability to respond to questions	Student is not able to answer questions.	Student is able to answer only the simplest questions.			Student answers informative questions well, but has difficulty to deal with in-depth questions.			Student answers both informative questions and in-depth questions well.			Student answers both informative questions and in-depth questions excellently. Answers are appropriate, clear and to-the-point and such that they enlighten the audience . Answers are logically and smoothly linked to the presentation or previous questions.		
3.2 Defence													

Defence	Student is not able to defend/discuss their research/project and report.	Student has difficulty to explain the subject matter of the research/project and report.			Student defends their research.			Student engages in a discussion about the contents of the research and relevant current knowledge.			Student engages in a lively and in-depth discussion about the contents of the research and relevant current knowledge and contexts.		
Contents and context	Student does not master the contents.	Student limits theirselves in the discussion to own data, and/or repeatedly demonstrates misunderstanding of own research.			Student knows most of the contents of the work. Student has difficulty to place it in it scientific, societal or practical context.			Student masters the contents of the work and is able to place it in scientific, societal or practical context.			Student masters the contents of the work and beyond. Student pro-actively places it in its scientific, societal and practical context, both narrow and wide.		
3.3 Presentation skills													
Targeted at audience	Unsuited for the intended public or intended purpose.	At some points a bit off target; makes it difficult for the audience to follow.			Intended public taken into account, but at some points level of detail is inappropriate for intended audience (too much or too little).			Targeted to the intended public (language, depth, length); appropriate for the intended purpose.			Enticing and purposeful throughout, facilitating communication of the main messages to the audience.		
Structure of presentation	Presentation is chaotic.	Presentation has unclear structure or lay-out.			Presentation is structured, though the audience gets lost in some places.			Presentation has a clear structure, is concise and to-the- point. Good separation between main message and side-steps.			Presentation is very well structured, is concise and to-the-point. Good separation between main message and side-steps. Line of argumentation is clear, logical and convincing throughout.		
Voice and poise	Presented in such a way that the majority of audience could not follow.	Presentation is uninspired and/or monotonous and/or student reads from slides; attention of audience not captured.			Presentation mostly clear, but at some moments uninspired and/or monotonous and/or unclearly spoken. At those moments attention of audience is lost.. Student has trouble recovering from mistakes.			Inspired, lively presentation, clearly spoken. Student recovers well from any small mistake.			Lively and relaxed though concentrated presentation. Clearly spoken in such a way that it keeps audience's attention. Smooth without errors.		