GRADUATION GUIDE

Projects started in 2024-2025, updated for 2025-2026

of the MSc degree programme

Educational Science and Technology (EST)

Final Project EST (course code: 201200036, 25 EC)

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Preface

Dear EST master's student,

This master's graduation guide provides additional information to the Programme Guide and the programme-specific appendix of the university's *Student Charter* (including the *Education and Examination Regulations*).

This guide mainly focuses on the procedures and guidelines with regard to the graduation phase of your Educational Science and Technology (EST) master's degree programme.

Please note that it is recommended that you have successfully completed the core course 'Perspectives on learning in education and work' (or for older cohorts 'Trending Topics in Educational Science and Technology') before you start your Final Project.

We would like to wish you success while completing your master's degree programme.

In case there are questions left, please do not hesitate to contact Huub Engbers of the *Educational Affairs Office EST* (BOZ-EST@utwente.nl).

On behalf of the EST-staff,

Marlies Tijhuis
Programme coordinator

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1. Preparatory phase of the Final Project

At the culmination of the EST programme, each student must carry out a research project that relates to a real-life problem. Rather than being a separate project, the Final Project will involve synthesising the preparatory work done in the framework of the previous courses and projects, and continuing it through a cycle of design or research activities.

1.1 Research Proposal EST

In parallel with their Final Project, all students must take the course ***'Research Proposal EST'***.
This course is scheduled **four times a year**, once during each quartile (1A, 1B, 2A and 2B), in order for students to take the course during the quartile when it best aligns with their EST Final Project. Students can follow the course Research Proposal after they have found and agreed with the graduation coordinator and supervisor on a topic for their Final Project and met with their supervisor at least once.

Full-time students from the September enrolment take the Research Proposal course in quartile 1B or 2A, and students from the February enrolment take it in quartile 2B or 1A of the following academic year.
Part-time students take the course in the first quartile of their second year, so they must make sure to have a topic and supervisor by the end of their first year, to meet the criteria specified above.

The major aim of the Research Proposal course is to guide and scaffold students in preparing their Final Project. Students learn to write a plan for their Final Project (this plan is called a research proposal). This research proposal forms the blueprint of the Final Project. It is wise to discuss the content of the proposal with the thesis supervisor, though the thesis supervisor will not provide feedback on the research proposal itself. The Research Proposal teacher(s) will be responsible for grading this proposal.

Among other things, the following aspects will be addressed during this course:

- Defining the purpose and the key concepts of the research, constructing and discussing a conceptual model, and formulating scientifically relevant research questions based on a review of the literature.
- Choosing and justifying an adequate method of data gathering and data analysis based on the purpose of the research and the research questions through separate structured assignments.
- Writing several sections of a research proposal (introduction, conceptual framework, method, etc.) through separate structured assignments.
- Reviewing and evaluating the scientific quality of the several sections and the consistency of the research proposal written by fellow students.

In other words: during mini-lectures and seminars those factors which determine the quality of the design of a research project and research proposal, such as information

skills, ethics, and publication skills, will be dealt with.
At the end of the course, students have knowledge on and insight into: how to formulate and design a research plan/project, and how to write a research proposal.

Assessment
The writing of the research proposal will start at the beginning of the quartile. Separate structured assignments are in place to guide and scaffold this process. These assignments are conditional for passing the course. As a conclusion of the course, the student will submit his/her research proposal at the end of the quartile in which the course is followed. It is only allowed to submit a research proposal twice per study year (one first submission plus one submission in case of a re-take). The re-take must be submitted at the end of the next quartile. The assessment of the research proposal is done by the teacher of the quartile in which the course was followed.
In order to pass the course, the following conditions apply: (a) the student must have fulfilled his/her duty to actively attend all sessions, (b) the student must have actively participated in all sessions (it's up to the teacher to judge whether this condition is met sufficiently), and (c) the research proposal should have been graded a 5.5 or higher. The grade for the research proposal is also the course grade.

For more information on for example the timelines, instructional modes, and assessment, the Canvas-site of the course Research Proposal EST can be checked.

1.2 How to find a project?

On the **EST Programme's Canvas site – Module "Final Project"**, the student can find a list of graduation themes based on which students can formulate their own project. The application procedure, required form, and upload procedure are explained there as well. For questions you can contact the graduation coordinator that best matches your interests:

• Prof.Dr. Maaike Endedijk (sem.1) / Dr. Mireille Post-Hubers (sem.2)	for HRD-related projects in the Section of Professional Learning & Technology (PLT)
• Dr. Alieke van Dijk	for EDU-related projects in the Section of Instructional Technology (IST)
• Dr. Marieke van Geel	For EDU-related topics in the Sections of Teacher Development (ELAN)
• Dr. Johannes Steinrücke	For EDU-related topics in the Sections of Cognition, Data and Education (CODE)

1.3 Is it a suitable project?

The core of a Final Project implies a design or a research component (including empirical, evaluative and reflective aspects, grounded in a theoretical and scientific framework). In order to be able to determine the suitability of a Final Project the student has to address the following questions in collaboration with the EST Graduation Coordinator:

- What is the relevance of the project for the target organisation and/or for the academic discipline Educational Science?
- If applicable, will there be sufficient and qualitatively adequate guidance from the company/organisation?
- Is the problem indicated a real problem? Are the formulated research questions embedded in relevant literature?
- Will there be sufficient opportunities to find out what causes the problem, or to collect the needed information?
- Is it possible to complete the project in the time given?
- Does the project generate student's enthusiasm and commitment?

Discussions on these questions should result in the conclusion whether a student's ambition is or could become a feasible project.

1.4 Determining the conditions for external projects and signing formal contracts

In case the student would like to do his/her Final Project in the context of an external organisation, and this Final Project is approved by the graduation coordinators, it is required to make clear arrangements and to determine conditions before the Final Project actually begins. The following issues should be addressed timely:

- Who will coach the student within the company/institute and to whom will the student report?
- Is there a workplace within the company/institute (including an own desk where the student can work undisturbed)?
- Is confidentiality an issue to consider?
- What facilities will be open to the student?
- What other conditions of employment are there (remuneration, insurance, holidays, working hours, etc.)?

Mainly if the project is a design project, some companies or institutions will automatically offer an official contract. Others will consider it as not necessary to draw up an official contract covering the above-mentioned elements.
Anyway, the student should make sure, whether there is sufficient communication and consultation between company/institute and university on these formal issues before the Final Project takes off.
The EST programme does not contain an internship as such, but if a formal agreement should be signed for the **external Final Project**, usually the term 'internship' will be used in the documents to be signed. The University of Twente strongly suggests and prefers the use of the standardized and legally checked 'University of the Netherlands (UNL) Internship Agreement'.

Procedure for signing Internship Agreement

- Find the UNL Internship Agreement documents (download Dutch version 'Stageovereenkomst NL' or English version 'Internship Agreement UNL English') plus explanatory notes on:

https://www.universiteitenvannederland.nl/onderwerpen/onderwijs/gemeenschappelijke-stageovereenkomst-universiteiten

- Contact the BMS internship coordinator via:
  internshipcoordinator-bms@utwente.nl

The BMS internship coordinator is the only person who is mandated and authorized to sign Internship Agreements for all BMS students, representing the University of Twente on the contract. So your Final Project supervisor should first agree on the content of the project and agree that his/her name is filled in at the role of university supervisor, but the supervisor will not be the person who signs the contract on behalf of the University of Twente. That is the task of the BMS internship coordinator.

In case the organisation where you will do your external Final Project insists on using their own internship agreement instead of the UNL document, then you must inform the BMS internship coordinator about this, and send in the draft contract. This contract must first be checked by the University of Twente's legal department, which of course takes additional time, so take this into account.

Note 1: As of 1 September 2025 students wo receive any kind of payment for their internship activities are legally required to take out Dutch basic health insurance. For more information about the Dutch basic health insurance, see: https://www.skgz.nl/english .

Note 2: International students may need a work permit to execute a Final Project in a company or institute. In this regard, students should contact the BMS's International Student Support Officer via: internationalstudentsupport-bms@utwente.nl .

1.5 Arrangements with the supervisor

After student and supervisor are matched by one of the Graduation Coordinators, students need to make clear arrangements with their supervisor about what they may expect from each other, and which tasks and responsibilities both the student and the supervisor have. These arrangements have to be included in the *Final Project Contract* (see: Appendix A).
This contract is signed by the members of the *Graduation Committee.*
The Graduation Committee consists of:

- The supervisor),
- The 2nd reader ,
- (If applicable) the – external - company/institutional coach.

This Final Project Contract obliges the University of Twente to guide the student and to assess the student's Final Project. It forces the student to complete the Final Project.

In this regard:
For both the student and the supervisor, it is important to know in advance what they can expect from each other. If, for example, the student has a part-time job, this should be taken into account in the time frame planning.

With regard to doing the Final Project part-time, please note the following: Working on your Final Project (25 EC) means that it will take approximately 17.5 full time weeks of 40 hours. If students can only work for two days per week on their Final Project, the estimated time frame increases from 17 weeks to 44 weeks. There is no difference in hours of supervision for a full-time or part-time student. This means that part-time students will have longer time between meetings with their supervisor.

Students can expect approximately 32 hours of supervision from the supervisor and approximately 8 hours of supervision from the 2nd reader. These hours include supervisors' reading time and providing feedback on all drafts during the research project and the presentation and defence of the Final Project.

Note:

- The student and the supervisor should be specific about how and when both parties will keep in touch.
- The student holds first responsibility of keeping contact with the supervisor.
- If applicable: The student informs the external coach/supervisor precisely and timely on their role in their graduation project. The UT supervisor holds responsibility of the assessment and grading. The external supervisor plays the role of adviser in the assessment of the Final Project, particularly related to the process-related issues.
- The student has to send their external supervisor a copy of the EST Programme Guide and a copy of this Graduation Guide.
- In case the University of Twente supervisor and the external supervisor do not know each other, the student is advised to check with his/her supervisors whether it is desired that they meet at the beginning of the Final Project. This will allow them (next to become acquainted) to discuss about roles and responsibilities.

1.6 Assessment of the ethical permissibility of the proposed research

In case a Final Project involves human test subjects, the student must submit a request for approval to the Faculty's Ethics Committee.
The student has to discuss and decide in close collaboration with the project's supervisor whether this is the case.

Full information on the (web-based) procedure can be obtained from the following webpage:
https://www.utwente.nl/en/bms/research/ethics-domainHSS/

In any case, this seeking for approval of the Ethics Committee (if applicable) has to be done **prior** to the actual start of the Final Project.

2. While the student is doing the Final Project

2.1 At the start of the Final Project

At the outset of the Final Project, the student has to devote time to (*social) orientation*. This is especially recommended when the Final Project is executed externally. It is helpful to talk also to those who are not directly involved in the project to find out how people in other parts of the organisation (or even outside the organisation) think about the topic.
It is important that the student feels *'at home'* within a few weeks and that people know who he/she is.

At this stage, the student has to

- consider in particular the formulation of the Final Project. Has something been forgotten, are modifications required? (Remember the points referred to in paragraph 1.3!),
- check carefully the stage-by-stage planning. Does it (still) look feasible?
- take into account the hours available for working on the thesis per week (f-t/p-t).

Note:
At this stage, the *Final Project Contract* (see: Appendix A) is concluded and signed, including a systematic listing of all conditions, and handed in via email at the Educational Affairs Office (BOZ-EST@utwente.nl).

2.2 During the Final Project

Some issues require special attention. The student has to:

- Consider his/her motivation. What was the goal he/she planned to reach? Does he/she (still) want to go for it? Is he/she still worried in any way about the feasibility?
- Review his/her relations within the institute/company. In case something is wrong, he/she should not hesitate to contact the UT supervisor, preferably at the beginning rather than discovering it does not work out at the end. The student has to inform the supervisor about the social and physical professional environment he/she is in, and has to inform the supervisor if there are any unexpected changes. This implies that next to the scheduled contact moments with the supervisor, the student and his/her supervisor have to agree that in case of unexpected circumstances, they will schedule additional meetings.
- Realise continuously that the student holds final responsibility of keeping in contact with the supervisor and the Faculty.
- Be aware that, with respect to written reports and discussions with the UT supervisor and/or the corporate/institutional coach, the following remarks could be useful:
    - always make written summaries of meetings, and communicate these summaries with the supervisor(s). This is an easy way to check if there is agreement on the topics that were discussed;

    - send – interim - reports in due time, and make clear what is requested from the addressee.
    - (when handing in an improved version of a report) students always have to make sure to send the previous version, commented on by the supervisor, too. If applicable, a student also has to make sure that the institutional or corporate coach signs for the acceptance of interim products (and, of course, for the final product).
- Be aware what may be expected from the supervisor and the institutional or corporate coach: constructive comments, comments on contents, form of research, and presentation of results, comments on the way the student functions (personality aspects, strengths and weaknesses of the person at work).
- Start the thesis-writing-process as soon as possible after commencing the project, and define a planning in this regard with the supervisor and/or *Graduation Committee* ("***what has to be submitted when***?").
- While planning the Final Project process, ask your supervisor when he/she will be absent (e.g. conference, vacation), and make sure to consider this in your time-line.
- During meetings with the supervisor, besides discussing the content of your work, also discuss the initial time frame planning, and adjust it if necessary.

Note:
Practice has shown that when students start a job while their thesis has not yet been completed, there is a high risk of study delay or even study termination. Take this experience into account when making personal decisions.
And before you make a decision regarding starting a job (or increase your working hours), first consult your supervisor if this can be combined with your particular thesis project and how this would affect your planning.

3. Writing the thesis

Every Final Project usually includes (a) a design or evaluation component and (b) a research component. Both demonstrate the ability of the student to use and process scientific knowledge. In a design-focused or evaluation-focused project, the design or evaluation activities have a central place whereas the research activities are mainly supportive for understanding of the problem and for assessing the problem solving capacity of the design or evaluation result. In research-focused projects, the focus is on data collection, analysis and interpretation, based on theory and a well-designed research plan, and leading to grounded recommendations for practice. Therefore the thesis intends to inform about:

- The problem that led to the Final Project.
- The research that led to the definite problem statement and to the methods selected to solve this problem(s), including the methodology used.
- The design or evaluation and research methods used, and the results obtained. This may be done in the form of a description and evaluation of results (e.g., a product), and conclusions and recommendations about the design or evaluation and research process, in such a way that the thesis embodies a sufficient scientific level.

Additional assistance needed?

At the outset of writing the thesis (and/or at the start of your Final Project) it is recommended to ask yourself whether you could benefit from assistance on issues like research methodology, (English) language skills, and finding sufficient and appropriate literature.

Therefore in this regard, we refer to the possibility to search help from the BMS faculty's Methodology Shop (M-shop) that offers help via e-mail or in person on for example your research design, the analysis of your data set, and how to use SPSS/R optimally. Check: https://www.utwente.nl/en/bms/m-store/

The UT Language Centre (https://www.utwente.nl/en/ces/language-centre/) may provide professional support in languages, communicative skills, academic writing, thesis writing, study and employability skills.

The BMS Faculty also has its own information specialists for assisting you in searching literature. See https://www.utwente.nl/en/lisa/contact/specialist/

3.1 Report structure

Outlining a table of contents and writing an introductory chapter are good ways to start the thesis. The student will find that he/she has only fully grasped what he/she wants to achieve when the student is able to write it down in a way that is clear to others.

The master's thesis normally consists of the following elements:

- *Table of Contents*. The student should use short informative headings. The table of contents should actually give a comprehensive impression of the contents of the report. Keep in mind that headings such as 'formulation of the problem', 'processing of data', 'conclusions and recommendations' do not contain information that is specific to the assignment.
- *Foreword/Acknowledgement*. The foreword is actually not a part of the report. It is a personal note that the author usually adds at the last minute, for example to express thanks.
- *Summary.* It must be possible to read and make sense of the summary as a stand-alone text. Principally, it should not contain references to the thesis or appendices. The summary should provide a concise impression of the problem at the outset of the Final Project. An account of the methodology and the processing and analysis of data do not belong in a summary. By far the most important is a clear outline of results and recommendations. After all, the reader, who restricts his or her reading to the summary, is primarily interested in the achievements of the Final Project.
- *Introduction*. It is required to start the thesis with an introductory chapter. An introduction forces the student to clarify the following issues for himself/herself and for the reader:
    - *What are you going to do in the thesis or the relevant chapter (formulating the central problem/questions)?*
    - *Why are you going to do this (motivation, background, and context)?*
    - *How are you going to do this (a discussion of the table of contents)?*
- *Description of the organisational context (especially for design-oriented projects).* Especially for external readers it is useful to provide an impression of the organisation within which the student is carrying out the Final Project (a brief history, an idea of the structure and the nature of products or services, strategy, scope, market, etc.). Please focus on the department or division of the company/institution involved.
- *Exploration and definition of the (research) problem*. Most assignments, either design or research oriented, begin with a problem statement or research question. Nevertheless, during the orientation phase, it is common to keep eyes and ears open and thus ascertain 'who actually has what problems', and what is the relevance of the research question. This may or will lead to a modification or sharpening of the problem or question defined. The initial exploration should in any case lead to a clear statement of the problem or question. Such a reconnaissance of the problem is also of help to the reader.

- *Design/research approach*. The student should give his/her readers clear insight into the followed method. This may involve a phased approach to the study, an overview of design and/or (evaluative) research methodology, insight into the area from which the student has drawn theoretical references, and so on.
- *Results.* Describe the results in a clear way. The student must make sure that those results are described that give an answer to the research question(s).
- *Discussion.* Describe the results and account for them. Refer back to the problem statement given in the introduction.
- *Conclusions and recommendations*. Limit the number of conclusions and/or recommendations. Formulate them concisely and clearly and ensure that they have been well laid out.
- *Reference list*. During the project, the student will make use of existing theories, models, and so on. At each stage, he/she has to make sure that readers understand why specific theories have been used (Note: cite those theories carefully and use a standard - APA- style). It must always be clear whether it is the student who is 'speaking' or someone else.
- *Appendices*. Appendices can be extremely useful, but the student must ensure that the reader is able to understand the thesis without need to consult the appendices. The use of appendices can help the student to make the thesis itself more concise and readable.

3.2 Publication and confidentiality of thesis

The general starting point is that copyright to the thesis vests in the student. Besides the copyright, the student has, by means of the GDPR-law, the right to decide whether the thesis should be published online. However, it is the intention of the UT to make all master's thesis reports online publicly available in the repository. Therefore, after the Final Project has been completed the student must upload their thesis via https://studenttheses.utwente.nl/p/login .

In specific cases, a confidentiality term can be desired according to the following criteria:

- There is a risk that the online master thesis will obstruct future peer reviewed publications, or
- When the external hosting organisation of the master thesis research requests a confidentially period with valid and reasonable arguments for the protection or use of the research results laid in the master thesis report.

In these cases, if the student and/or supervisor want to withhold permission to make the thesis available through open access, the Final Project committee and the student indicate on the Final Project contract (see: Appendix A), whether they agree upon the thesis being made available through open access or, whether a request to the programme management needs to be submitted.

The student must submit a request for this to the programme management via email to BOZ-EST@utwente.nl.

This should be done as early as possible, preferably before the start of the thesis. (If applicable, this request is accompanied by the third party requiring the confidentiality).

This request must contain a detailed description why the thesis should be archived confidentially and accompanied by a signature from the supervisor.

If the whole thesis has to be kept confidential, or in case of temporary confidentiality, the programme management has to decide on a deviation from the usual policy of open access. After this deliberation, the student and supervisor will be informed of the decision.

If the request is granted, the student has to:
• make a separate, anonymized document containing the abstract of the thesis which is checked and agreed upon by the supervisor. This abstract will be publicly available;
• send both the public abstract and the confidential thesis to the EAO;
• upload both the public abstract and the confidential thesis to repository. In this procedure the students indicates that the thesis has been approved to be registered as confidential.

If a student wants to change the public nature of the thesis after graduation, the programme management will only handle requests if there is an added advice of the supervisor on this request.

3.3 Other matters of attention

When writing a thesis, the following points are extremely important (not necessarily in this order):

- The thesis should be **limited to max. 15,000 words (**excluding table of contents, bibliography, acknowledgements, and appendices). The student has to realise that the main body of the text needs to be composed of the exploration and definition of the (research) problem, the design/research approach, evaluation/discussion, and conclusions and recommendations.
  Keep in mind that *"The art of writing is the art of knowing what to exclude!"* so usually the fewer words the better.
- During the writing process, the student has to have a broad but engaged and interested audience in mind. A student must also be able to explain to non-specialists what he/she means.
- The thesis has to be written in English[1]. With respect to the English language: the student has to use **British (UK) spelling** conventions. Use a spelling checker.
- The layout needs to be clear and reader-friendly. The thesis should take the reader by the hand.
- When the thesis takes shape it is important to pay attention to the broad lines of the argument, the structure, transitions, and so on. In this respect, the student

[1] In case a student has strong reasons to deviate from this rule, he/she has to submit a written request to the Examination Board

should also pay attention to the end of the thesis, which must link up with the beginning. It must be clear that a student ultimately answered the posed questions at the beginning.

Basically, the master's thesis needs to meet the requirements of the APA-style as formulated in the most recent edition of the "APA-manual" or the "Concise rules of APA-style".

In addition, our Faculty prescribes that the thesis needs to embody the following standard settings:

Lay-out:	
Font:	either Times New Roman or Arial or Calibri
Font size:	11 points or 12 points
Line spacing:	1.5
Tables and figures:	to be included in the text
Margins:	top, bottom, left, right: 2.5 cm
Standard tabs:	1.25 cm
Justify:	the whole document (i.e., also the marginal line at the right-hand side)

For **draft versions** of the thesis:

- Check upfront with Final Project supervisor about the lay-out preferences.

4. Final colloquium

The student may only set a date for his/her final colloquium (i.e., oral presentation) upon approval of his/her supervisor (in consultation with all members of the *Graduation Committee* and the *Educational Affairs Office EST*)! (See: Appendix B). This is the so-called ***Green Light***.
This is normally the case when the Graduation Committee, except for some minor textual changes, approves the thesis.

The final colloquium is a public event. A student may invite friends, colleagues, relatives, etc.

During the colloquium, the UT supervisor acts as host. He/she will introduce the student, after which the student presents his/her Final Project (duration approx. 25 minutes). After that, there are 20 minutes available for discussion. The Graduation Committee will then retreat in order to formulate the result (i.e., to determine the grade) of the Final Project as a whole. The student will be told the result, including getting feedback (either in a personal discussion of 15 minutes maximum, or in public).

The student and the Graduation Committee agree prior to the final colloquium on the way they will announce the grade.

The following guidelines are important for the colloquium:

- Since the colloquium is a public event, the student has to prepare his/her presentation in English!

  Note: Dutch students may (after having consulted the Graduation Committee and upon their approval) switch to a presentation in Dutch in case it turns out that there is no non-Dutch audience present.

- The student should have a clear picture of the audience in the room. He/she should bear in mind that listeners are not necessarily specialists and probably do not know anything about the topic.
- The student is advised to use tools (e.g. PowerPoint) to clarify the presentation. However, the student has to take care that the colloquium does not become merely a duplication of the pictures and texts presented on the screen. He/she should not use too many slides and he/she should ensure that each slide contains a limited amount of easily legible information.
- At the beginning of the presentation, the student has to outline the various sections of the discourse, and he/she needs to make sure that the audience knows which part is dealt with at each stage.
- Although the total colloquium session takes 45 minutes, the presentation itself will only take 25 minutes. It is very difficult to time a speech accurately. Once *'in full flow'* time passes rapidly. A student should be aware of this. Therefore, it is

strongly recommended to give the presentation a 'dry run' and time it to check how long it will take.
- Look at the audience. Do not keep looking at notes and do not talk faced to the board or screen.
- Once the presentation is finished, there is an opportunity for the audience (public and supervisors) to ask questions. The answers to these questions are part of the colloquium and the grading.

The colloquium will be evaluated. This evaluation will weigh in the total assessment of the Final Project (see chapter 6 of this guide).

The student may wish to invite his/her guests at the colloquium for a drink and a snack afterwards, at his/her own costs.

The routine for colloquia is available on the EST Programme's Canvas site:
https://canvas.utwente.nl/courses/3405/pages/final-project-links-and-colloquium-routine?module_item_id=122915

5. Graduation procedure

5.1 General procedures

- In the *Final Project Contract* (see: Appendix A), the student's *Graduation Committee*, mandated by the Examination Board*,* represents the Faculty. The *Graduation Committee* should approve the *Final Project Contract* and has to provide the necessary guidance for the project's execution. The *Graduation Committee* also assesses the Final Project and the thesis (where the UT members of the committee hold responsibility for the final grade).

- As soon as the *Graduation Committee* and the student have approved and have signed the *Final Project Contract*, the student has to submit the contract to the *Educational Affairs Office EST* via email.

- The *Educational Affairs Office* will check whether the student fulfilled all stipulated requirements (see the *EST Programme Guide* and *Education and Examination Regulations*), and the office will inform the student on the outcomes of this check in case the student does not fully meet the requirements.

- Furthermore, the *Educational Affairs Office* will enrol the student for the Master Thesis EST Canvas site. The student should accept this invite. Via this Canvas site the student must submit the last draft version of the thesis before the 'green-light' meeting, in order to run an automated plagiarism check.

- The student may only set a date for his/her final colloquium (i.e., oral presentation) upon approval of his/her supervisor via completing (and having signed by the supervisor) the Registration and Approval for Graduation form (See: Appendix B). This is called: the ***Green Light*** form.
  This is normally the case when the Graduation Committee, except for some minor textual changes, approves the thesis.
  This Green Light form has to be submitted at least 15 working days prior to the envisaged date of the final colloquium to the Educational Affairs Officer EST.

  Note:
  During summer period most of the staff will be on summer leave. This means that if a student plans to graduate in July or August, he/she must discuss and plan this carefully with both the supervisor and the second reader, and must inform the Educational Affairs Office timely, preferably already in June.

  Please be aware that one academic year spans the period 1 September until 31 August. This implies that in case a student plans to graduate after 31 August, he/she has to **re-register** to the university. Subsequently he/she has to pay an additional tuition fee. The *Educational Affairs Office EST* provides more information on this issue.

- A student has to send a written request to the *Educational Affairs Office* in case he/she, in addition to the required units of study, successfully completed

additional courses, and he/she would like to have these additional courses been listed on the supplement to the certificate (i.e., Diploma Supplement).
However, these additional courses are not taken into account when it comes to an optional "Cum Laude" award.

- The student has to send the thesis to all members of the *Graduation Committee*. Furthermore the student uploads the thesis to the UT Student Theses and UT Archive online through https://studenttheses.utwente.nl/p/login (for limitations in this regard, see: paragraph 1.6)
  Besides, the *Educational Affairs Office EST* receives two (2) digital copies: 1 in MS-Word and 1 in '*.pdf' format ultimately 3 days before the colloquium.

- The Examination Board is entitled to grant the distinction "Cum Laude". The Examination Board will take the following conditions in consideration in the decision for graduating Cum Laude:
  - no graded work was re-done;
  - no course was graded less than a 7.0;
  - the unweighted average grade for all numerical graded courses without the thesis, is at least 8.0 [*note: this unweighted average deviates from the weighted average that is generated in Osiris*];
  - in the determination of this average, the courses that were not evaluated with a numerical mark or for which an exemption was granted are not considered. In the determination of the average, at least 50 EC needs to be registered with a numerical mark in Osiris;
  - the final grade for the Final Project is at least a 8.5.

  In special cases and despite not fulfilling these conditions the student is entitled to submit a request for 'Cum Laude' to the Examination Board.

5.2 Mobility Online

As soon as students are at the stage of having completed the Final Project contract (see: Appendix A), they are required to register their Final Project, course code **201200036,** in the UT system *Mobility Online.*
Please note that the registration process consists of several steps which all have to be completed before students can actually graduate.

(A) When a student does the Final Project in an **UT (internal) topic** they need to register in the so-called **"Graduation – standard pipeline"** via this web link:

- First/initial registration: *link*.

or

(B) When a student does a Final Project **externally** in an organisation/company they need to register in the so-called **"Graduation – extended pipeline"** via this web link:

- First/initial registration: *link*.

Upon having initially registered, the student needs to **login** via: *link*.

Option (A): Steps to complete in the Mobility Online's "Graduation – standard pipeline":

At the start of your Final Project:
Step 1: Fill in the application form (please note that all forms need to be filled in digitally and send by email, no printed materials can be accepted).
The application form needs to be completed as soon as your research proposal has been approved by your supervisor (Final Project contract). Despite the fact that this Mobility Online form requires the signature of your supervisor, for EST students this is not mandatory (since the Final Project contract has already been signed). The Educational Affairs Office staff will sign this Mobility Online form upon having checked the Final Project contract.
Please submit this application form <u>simultaneously</u> with the Final Project contract to the Educational Affairs Office (EAO).

At the end of your Final Project:
Step 2: After the colloquium, the Educational Affairs Officer registers your grade in Osiris and will mark the project as finished in Mobility Online.

Option (B): Steps to complete in the Mobility Online's "Graduation – extended pipeline":

At the start of your Final Project
Step 1: Fill in the application form

- The application form needs to be completed as soon as you are **starting to work on your Final Project.**

Step 2: Answer question regarding type of thesis

- Answer the question whether you have an internal Final Project (at the UT) or an external Final Project (in a company or organisation).

Step 3: Send an email to the Educational Affairs Office and inform them about your Mobility Online registration.

Step 4: Answer the scholarship question

- If you are working on your Final Project at the UT, or in a company/an organisation <u>within</u> the Netherlands, or in a company/an organisation <u>in your home country</u>, **indicate 'No'**.
- If you are working on your Final Project in a company/an organisation outside of the Netherlands or your home country, **indicate 'Yes'.**

Step 5: Fill in your address

- Fill in your residential address where you will stay during the Final Project.

At the end of your Final Project
Step 6: <u>Optional</u>: in case of changes to the duration or content of your thesis project.

- In case the content of your Final Project has changed (title or thesis description), please alter the information during this step.
- In case the duration of your Final Project changes (project takes longer than expected), you can change the expected end date during this step.

Step 7: Project finished, end of Mobility Online registration

- The EAO office will check the deliverables and will register your grade for the Final Project in Osiris.
  Afterwards the Mobility Online registration will be marked as 'finished'. This is the end of the registration.

5.3 Graduation and awarding of certificates

Immediately after the final colloquium, authorised by and on behalf of the Examination Board, a member of the *Graduation Committee* will hand over the certificate to the student.
The certificate states that the student has satisfied all the master's programme requirements. The student and the Chair of the Examination Board sign the certificate.
Handing over the certificate is a public event.
The *Educational Affairs Office* will send the supplement to the certificate (listing all units of study reviewed / transcript of records) to the student at a later stage.

6. Assessment and Grading of the Final Project

The following aspects are taken into account in the evaluation of the Final Project:

- the quality of the thesis
- the quality of the colloquium
- the student's professional attitude and skills

More specifically, the following assessment aspects apply (see also: Appendix C):

1. Problem statement and theoretical framework

   Criteria in this regard:

   - Various (core) concepts, theories, models and working methods of the discipline are appropriately chosen and used (in combination) and show a thorough understanding of the meaning and interrelationships as well as good knowledge of the domain and area of specialization.
   - An extensive and in-depth literature review has been performed as a theoretical framework for the problem statement.
   - The problem statement and/or the research question are explicit, carefully developed and formulated (including preconditions, limitations, sub-questions etc.), and researchable (providing direction to the research strategy).
   - The problem statement is justified and embedded in a theoretical framework; the choices and suppositions made are clearly indicated and the scientific and social relevance of this research is clearly and adequately substantiated.
   - In the case of an external (design) assignment: needs, wishes and demands of the client are adequately translated into a specific problem statement, a characteristic which is expressed in the description and the justification.

2. Research plan and analysis

   Criteria in this regard:

   - A well-founded choice of research method(s) and instruments and/or design plan has been made, corresponding to the statement of the problem and partly based on the theoretical framework.
   - The acquisition of the data has taken place in an adequate and transparent manner, making the data valid and reliable.
   - The choice for the method of processing and the processing of the data has taken place in a comprehensible and transparent manner; the results are valid and reliable.
   - The student has performed a correct, advanced analysis, which logically arose from the problem statement and results.
   - In the case of an external (design) assignment: the design approach has been applied adequately, including the implementation and evaluation, and has resulted in a high-quality design of intervention(s) or instrument(s).

3. Conclusion, reflection, discussion

   Criteria in this regard:

   - In the conclusion, the initial problem statement / research question is answered.
   - The student has managed to lift the conclusions to a higher level (abstraction, generalization) and an interpretation and consideration are given concerning the practical, social and/or scientific relevance of the research (related to the theoretical framework, recent research), while attention is paid to ethical aspects.
   - The student has critically assessed and discussed the research and the results (reflection, good argument and argumentation, recognition of strong/weak point, putting the research into perspective). The student has reflected on the implications of strong/weak points of the research and on possible solutions.
   - The thesis has contributed to the development of new knowledge and ideas and to the formation of theories, models and instruments (this could also be: valid replica with expansion of existing research).
   - The student has made a proposal for follow-up research based on practical and theoretical considerations.

4. Written report

   Criteria in this regard:

   - A logical, consistent design and structure. A concise representation of the total research.
   - Correct language use.
   - Good readability, an academic style of writing (concise, according to the conventions for publications in the discipline).
   - A correct presentation and layout of data in tables, figures etc. and correct references to literary sources, other information sources etc. (according to conventions, APA style).
   - In the case of an external (design) assignment: audience-oriented justification of the design process and results for the client and other parties involved; solutions in the form of advice tailored to the client.

5. Process, functioning of the student

   Criteria in this regard:

   - A high level of independence; limited need for help and supervision.
   - Dedication and initiative.
   - The ability to reflect and deal with feedback (learning capacity).
   - A project-based methodical and goal-oriented method of working.
   - Completion within the scheduled time.
   - Good contact, coordination and communication and a pleasant and fruitful collaboration with the parties involved, such as the internal

supervisor(s) and, if applicable, the external client and other external involved parties.

- If ethical values played a role when acting within the framework of the assignment (professional ethics), the student has shown to know these values and to apply them adequately.

6. Oral Presentation and defence

   Criteria in this regard:

   - Good argument, good argumentation and justification.
   - The presentation is concise, relevant and informative. Good distinction between major and minor issues.
   - The presentation is appealing, has an appropriate and clear structure, and is understandable and comprehensibly structured.
   - Adequate use of media technology.
   - Adequate answers to critical questions about research and to theoretically oriented questions about the subject of the research.
   - In the case of an external (design) assignment: a presentation about the design process and the results, tailored to the client and other parties involved; the solution is given in the form of clear and convincing advice.

With respect to these assessment factors above, the following <u>weighing factors</u> apply:

1-3	Assessment on content	50%
4:	Written report	20%
5.	Process, functioning of the student	20%
6.	Oral Presentation and defence (colloquium)	10%

7. Checklist of Final Project steps and procedures

The scheme below can be helpful in fulfilling the Final Project correctly and timely

nr.	Activity	Done?
1	Read the Graduation Guide	
2	Select a topic that attracts your interest (check: dedicated EST Canvas site) and contact the appropriate EST Graduation Coordinator about it.	
3	(Via one of the EST Graduation Coordinators), find a supervisor for the project	
4	Discuss with supervisor(s) about the project. In case you will do an external Final Project and a formal contract needs to be signed, please follow the procedure described in paragraph 1.4 of the Graduation Guide.	
5	Make a time frame planning according to your hours available (f-t / p-t) per week.	
6	Fill in the Final Project contract (Appendix A) and mail it to the Educational Affairs Office. Please check if all signatures have been placed on the document.	
7	Register the Final Project in Mobility Online, and follow all concerned steps (see: paragraph 5.2 of the Graduation Guide). Mail the Mobility Online proposal form (together with the Final Project contract) to the Educational Affairs Office.	
8	Upon submitting Appendix A, the Educational Affairs Office will enrol you for the "Master Thesis EST" Canvas site. You must accept this enrolment because towards the end of the final project trajectory you need to submit the thesis via this Canvas site for a plagiarism check (see step 15).	
9	According to standard procedure, the thesis will be posted publicly after graduation. In case the organisation where you conduct your final project insists on deviating from this public archiving of the thesis, or when you/your supervisor aim at publication of an article on the topic, you must submit a request (with – in writing – support from your supervisor and (if applicable) company/organisation) for changing this confidentiality to the programme management.	
10	Submit the research proposal for assessment to the teacher of the Research Proposal course (see Canvas-site for deadlines).	
11	If applicable, you need to ask for approval of the Ethics Committee. Submit the ethical approval form, always in accordance with your supervisor. Only after ethical approval, data collection can be started.	
12	Stay in touch with the supervisor(s) frequently. The student takes the initiative. During meetings, besides discussing the content of your work, also discuss the time frame planning, and adjust it if necessary.	
13	Be sure that you and your supervisor are aware of the assessment criteria.	
14	Make sure that your thesis does not exceed the max. 15,000 words (for projects started as of September 2024, for projects started before that date it is max. 24,000 words). This requirement may obstruct setting a date for your colloquium.	
15	Plan the "*Green Light Meeting*" with the graduation committee timely. Before the green light meeting, the student submits the thesis for a plagiarism check and approval via the "Master Thesis EST" Canvas site.	
16	If you receive "green light" from the supervisor(s) you can plan the final	

	colloquium. Fill in the registration form Appendix B and mail it to the Educational Affairs Office timely (at least 15 working days before the envisaged date of the colloquium). Please check if all signatures have been placed on the document.	
17	Prepare the presentation (do a "dry run"!), and contact the Education Affairs Office to reserve a lecture room for your colloquium, and arrange other practical matters regarding your graduation and diploma.	
18	Submit your thesis to the UT Student Theses and UT Archive through: https://studenttheses.utwente.nl/p/login . Also hand in the thesis digitally (= MS-Word and *.pdf) at the Education Affairs Office before the colloquium presentation.	
19	Upon having submitted your thesis at the Educational Affairs Office, finalise your Mobility Online registration.	

8. Contact information

Graduation Coordinators

Prof.Dr. Maaike Endedijk *(sem.1 of 2024-25)*
m.d.endedijk@utwente.nl
Capitool 15 – 326
053 – 489 3608

Dr. Alieke van Dijk
a.m.vandijk@utwente.nl
Capitool 15 - 314
053 – 489 7495

Dr. Marieke van Geel
m.j.m.vangeel@utwente.nl
Ravelijn, room 4343
053 – 489 5564

Dr. Johannes Steinrücke
j.steinrucke@utwente.nl
Capitool 15 – 339
053 – 489 7625

Dr. Mireille Post-Hubers *(sem.2 of 2024-25)*
m.d.hubers@utwente.nl
Capitool 15 - …
053 – 489 1115

Programme staff

Study adviser
Drs. Yvonne Luyten-de Thouars
y.c.h.luyten-dethouars@utwente.nl
Ravelijn, room 3280 (or 3240)
053 – 489 1117

Programme coordinator
Marlies Tijhuis, MSc
m.e.tijhuis@utwente.nl
Ravelijn, room 3278
053 – 489 8604

Programme director
Dr. Tessa Eysink
a.h.gijlers@utwente.nl
Capitool 15 - …. / Ravelijn, room 1234
053 – 489 4074

Educational Affairs Office EST

Huub Engbers
BOZ-EST@utwente.nl
Paviljoen 116
053 – 489 4122
Office hours: Monday, Tuesday, Thursday and Friday: 10:00-14:00h

Faculty of Behavioural, Management and Social Sciences **MSc programme Educational Science & Technology (EST)** Educational Affairs Office (BOZ) **Fill in at the start of your Final Project**	UNIVERSITY OF TWENTE.

APPENDIX A: Final Project contract

Family name: _____

Given name(s): _____

Student number: S_____

Title Final Project: _____

_____

Short description: _____

(*what, why, where*) _____

_____

_____

_____

_____

_____

_____

_____

External assignment (if applicable):

Name company/institution: _____

Address: _____

_____

External supervisor: _____

Phone number + email (external): _____

Graduation Committee

1st Supervisor: _____

2nd Reader: _____

External supervisor (if applicable):_____

Period (If applicable, please also mention the period when you will be abroad for Final Project work)

Start (month – year): _____

Expected duration (in months): _____(plannend) date of completion _____

Study plan (only if you still have to complete courses, please fill in this scheme)

Code	Course	Credits (ECs)	(Planned) date of completion

☐ The undersigned acknowledge that, for Final Projects involving human test subjects, the student must submit a request for approval to the Faculty's Ethics Committee before starting the part of the work involving humans.

Note: According to standard procedure you will upload your thesis for non-confidential publication after graduation. In case the thesis supervisor and / or the organisation where you conduct your final project insists on deviating from this public archiving of the thesis, you must submit a request for changing this public status into "confidential" to the EST programme management via BOZ-EST@utwente.nl .

Should the thesis be handled confidential?

O **No** O **Yes, and I will submit a request to the programme management**

Students are expected to be familiar with the University's policy on plagiarism, cheating and other forms of academic misconduct. If an examiner has a motivated suspicion of fraud, s/he will notify the Examination Board. The Examination Board will start a procedure according to the Rules and Guidelines on: https://www.utwente.nl/en/bms/examboard/for-students/Scientific-misconduct/

Signatures

1st Supervisor: _____

Date: _____

2nd Supervisor: _____

Date: _____

Student: _____

Date: _____

Note: After signing the contract, the student has to submit the copy of this contract to the Educational Affairs Office EST. Keep a copy for yourself and supervisor.

APPENDIX B: Registration and approval for graduation

Family name: _____

Given name(s): _____

Date of birth: _____

Place of birth: _____

Address: _____

_____

Phone number: _____

Student number: S_____

Master's student in the MSc programme Educational Science and Technology (EST) would like to register for graduation on _____(fill in exact date!)

Time: _____ (**select**: 9:00, 11:00, 14:00 or 16:00 hours)

Expected number of people attending the colloquium : _____

☐ As the supervisor of the Final Project and master's thesis I declare that it is feasible for the candidate to present his/her work during a public colloquium on _____ (*date*).

☐ As the supervisor of the Final Project and master's thesis I checked that the presented (draft) version of **the thesis does not exceed the max. 15,000 words**.

☐ As the supervisor of the Final Project and master's thesis I declare that, in the framework of safeguarding scientific quality, the presented thesis has been checked (via plagiarism detection software in the "Master Thesis EST" Canvas site) on fraude/plagiarism, and that in this regards the thesis meets the academic standards.

Name supervisor: _____

Date: _____

Signature: _____

The student declares that the master's thesis is the product of his or her own work:

Signature student: _____

Date: _____

APPENDIX C: Assessment forms

Assessment master's thesis EST (1 - 5)

(Page 1 / 2)

Name student: ---------- Student number.: ----------

Course code: ---------- Date: ----------

Course name: ----------

Title master's thesis: ----------

1-3 Assessment on content [(1+2+3)/3] (50%)

Assessment (55-100): ☐ x 5 Points ☐

1. Problem statement and theoretical framework

Assessment (55-100): ☐

Criteria

- *Various (core) concepts, theories, models and working methods of the discipline are appropriately chosen and used (in combination) and show a thorough understanding of the meaning and interrelationships as well as good knowledge of the domain and area of specialization.*
- *An extensive and in-depth literature review has been performed as a theoretical framework for the problem statement.*
- *The problem statement and/or the research question are explicit, carefully developed and formulated (including preconditions, limitations, sub-questions etc.), and researchable (providing direction to the research strategy).*
- *The problem statement is justified and embedded in a theoretical framework; the choices and suppositions made are clearly indicated and the scientific and social relevance of this research is clearly and adequately substantiated.*
- *In the case of an external (design) assignment: needs, wishes and demands of the client are adequately translated into a specific problem statement, a characteristic which is expressed in the description and the justification.*

2. Research plan and analysis

Assessment (55-100): ☐

Criteria

- *A well-founded choice of research method(s) and instruments and/or design plan has been made, corresponding to the statement of the problem and partly based on the theoretical framework.*
- *The acquisition of the data has taken place in an adequate and transparent manner, making the data valid and reliable.*
- *The choice for the method of processing and the processing of the data has taken place in a comprehensible and transparent manner; the results are valid and reliable.*
- *The student has performed a correct, advanced analysis, which logically arose from the problem statement and results.*
- *In the case of an external (design) assignment: the design approach has been applied adequately, including the implementation and evaluation, and has resulted in a high-quality design of intervention(s) or instrument(s).*

3. Conclusion, reflection, discussion

Assessment (55-100): ☐

Criteria:

- *In the conclusion, the initial problem statement / research question is answered.*
- *The student has managed to lift the conclusions to a higher level (abstraction, generalization) and an interpretation and consideration are given concerning the practical, social and/or scientific relevance of the research (related to the theoretical framework, recent research), while attention is paid to ethical aspects.*
- *The student has critically assessed and discussed the research and the results (reflection, good argument and argumentation, recognition of strong/weak point, putting the research into perspective). The student has reflected on the implications of strong/weak points of the research and on possible solutions.*
- *The thesis has contributed to the development of new knowledge and ideas and to the formation of theories, models and instruments (this could also be: valid replica with expansion of existing research).*
- *The student has made a proposal for follow-up research based on practical and theoretical considerations.*

Assessment master's thesis EST (1 - 5)

4. Written report (20%)

Assessment (55-100): ☐ x 2 Points ☐

Criteria:

- *A logical, consistent design and structure. A concise representation of the total research.*
- *Correct language use.*
- *Good readability, an academic style of writing (concise, according to the conventions for publications in the discipline).*
- *A correct presentation and lay-out of data in tables, figures etc. and correct references to literary sources, other information sources etc. (according to conventions, APA style).*
- *In the case of an external (design) assignment: audience-oriented justification of the design process and results for the client and other parties involved; solutions in the form of advice tailored to the client.*

5. Process, functioning of the student (20%)

Assessment (55-100): ☐ x 2 Points ☐

Criteria:

- *A high level of independence; limited need for help and supervision.*
- *Dedication and initiative.*
- *The ability to reflect and deal with feedback (learning capacity).*
- *The ability to deal with setbacks or a decrease in motivation; being able to find solutions for problems.*
- *A project-based methodical and goal-oriented method of working.*
- *Completion within the scheduled time.*
- *Good contact, coordination and communication and a pleasant and fruitful collaboration with the parties involved, such as the internal supervisor(s) and, if applicable, the external client and other external involved parties.*
- *If ethical values played a role when acting within the framework of the assignment (professional ethics), the student has shown to know these values and to apply them adequately.*

General remarks:

Signature assessment committee:

First assessor (name): _____ *Date:* _____

Signature _____

Second assessor (name): _____ *Date:* _____

Signature _____

Assessment Presentation (6) & Total Assessment

master's thesis EST

Name student: Student number:

Course name and code: Date:

Title master thesis:

6. Oral Presentation and defence (10%) *Assessment (55-100):* Points (x1):

Criteria

- *Good argument, good argumentation and justification.*
- *The presentation is concise, relevant and informative. Good distinction between major and minor issues.*
- *The presentation is appealing, has an appropriate and clear structure, is understandable and comprehensibly structured.*
- *Adequate use of media technology.*
- *Adequate answers to critical questions about research and to theoretically-oriented questions about the subject of the research.*
- *In the case of an external (design) assignment: a presentation about the design process and the results, tailored to the client and other parties involved; the solution is given in the form of clear and convincing advice.*

Eventual remarks:

Assessment overview master's thesis EST

	Points		
1-3 Content (50%)			
4 Written report (20%)			
5 Process & functioning (20%)			
6 Oral Presentation & defence (10%)			
Total points:		**/ 100 Mark:**	
Rounded * final mark			

Signature on behalf of the assessment committee:

Assessor (name): *Date:*

Signature:

* Remark for rounding the grade, based on EER:
Final grades can be expressed in half grades, except for the grade 5.5; this must be rounded to 6.0, whereby grades must only be rounded in the last phase of the assessment of the study unit.

Example rounding schema:

grade	final grade
≥ 7.00 and < 7.25	7.0
≥ 7.25 and < 7.75	7.5
≥ 7.75 and < 8.00	8.0

APPENDIX D: Information assessement form and Rubric

Information on Assessment form Master's thesis Educational Science and Technology (EST)

The EST master's theses are assessed on the basis of six elements. These elements (and the corresponding criteria) derive from the programme's learning objectives. The supervisors of the thesis are to give an assessment (score 1-100) per element with the help of a "rubric".

The general meaning of the scores is as follows:

Assessment score	Mark	Meaning
≤ 54	< 6	Insufficient; the thesis does not correspond to what can be expected
55-62	6	Sufficient; the thesis meets the expectations
63-67	6,5	
68-72	7	The thesis meets the expectations more than sufficiently
73-77	7,5	
78-82	8	Good thesis
83-87	8,5	
88-92	9	Very good thesis
93-97	9,5	
98-100	10	Excellent, exceptionally good thesis

Weighing factors apply to the elements. Points are to be assigned on the basis of these weighing factors.
The final mark is to be determined on the basis of the total number of points.

The assessment elements are presented below, accompanied by the weighing and the calculation method to be used for the conversion of the scores into points and subsequently into the mark without rounding and the final mark.

Score (0-100) 1 - 3 **Content** (50%) ((1+2+3) / 3) x 5 = A
1 Problem statement and theoretical framework
2 Research method(s) and analysis
3 Conclusion, reflection, discussion
Score (0-100) 4 **Written report** (20%) x 2 = B
Score (0-100) 5 **Process and functioning of the student** (20%) x 2 = C
Score (0-100) 6 **Oral presentation and defence** (10%) x 1 = D +
..... /100 = final mark
without rounding
=> ..... round final mark

Which criteria are to be used and how should the scores for the different elements be determined?

The assessment score per element is to be determined by the supervisors on the basis of the corresponding criteria (to be found on the relevant assessment form) and the "rubric". Per element (1-6), the "rubric" (*see pages 3-9*) provides certain ranges of scores followed by a general description of the corresponding performances to be expected from a student writing, presenting and defending a master's thesis in Educational Science and Technology.

The rubric is therefore an important guideline for the assessment of the master's thesis.

***Please note**: To be able to pass and graduate, the student needs to achieve a score of at least 55 for each of the individual assessment elements 1-6.*

How do I use the assessment forms?

To determine the points per element (1-6) and, subsequently, the mark obtained by the student, two forms need to be used.

1st form (Appendix C-1):

→ The points per element 1-5 are to be jointly determined (by means of the rubric) by the first and second assessor and filled in on the 1st form titled *Assessment Master's thesis EST (1-5)*.
→ The 1st form is to be digitally filled in (blue entry fields) and signed by both assessors prior to the final presentation (also called colloquium).
→ The (first) supervisor is to provide the Educational Affairs Office (BOZ) with this form signed by both supervisors version. The signed form is to be handed in after the presentation.
→ The (first) supervisor ensures that the student also receives a copy of the filled-in form, for example by mailing the filled-in form to the student prior to the presentation or by printing the filled-in form and handing it to the student the final presentation.

2nd form (Appendix C-2):

→ The 2nd form titled *Presentation assessment (6) and Assessment overview master's thesis EST* form, is to be filled in and signed by the (first) supervisor immediately after the end of the presentation.
→ On this 2nd form the assessment and the resulting number of points for the oral presentation and defence (6) are to be filled in and a summary/overview needs to be given of all the weighed points for criteria 1-6. This means that the supervisor needs to copy the weighed points for the elements 1-5 from the 1st form. The mark (without and with rounding) is then to be determined and filled in by the supervisor on the basis of all filled-in weighed points.
→The student, the supervisor, and the Educational Affairs Office (BOZ) all receive and archive this filled-in and signed form.

Archiving:

After the end of the presentation the first supervisor is to hand in the following documents at the Educational Affairs Office for archiving:

- the digitally filled-in 1st form *Assessment Master's thesis EST (1-5)* with signatures from both supervisors;
- the digitally filled-in 2nd form *Assessment Presentation (6) and Assessment overview master's thesis EST* signed by the supervisor.

The supervisor also personally archives the signed forms.

Aid: worksheet

Attached, after the rubric, you can find a worksheet for the assessment (elements) of the master's thesis.
This worksheet can serve as an aid for personal use during the assessment of the thesis. In the worksheet, the assessment elements are broken down further into the criteria and partial scores. Specifically going over and assessing all criteria can help coming to a well-balanced assessment. It can also aid in providing insight in the assessment during the consultation with the supervisor and be of help in the discussion about the assessment/points per element. Use of the worksheet is optional.

Rubric – Assessment Master's thesis EST

NB: The description is an example. The numbers of points form a range. Within that range the most appropriate number of points can be assigned.

1. Problem statement and theoretical framework	
0-54	The concepts and terminology, theories, models and working methods used are not (always) suitably selected, meaningful or consistently applied. Few connections are made. The literature review is too minimal and/or the sources are often non-scientific. The problem statement and research questions are unclear, badly formulated and/or not researchable. The problem statement has not been placed in the theoretical context. The social and/or scientific relevance of the research is not or hardly explained and the choices or suppositions made are not specified or insufficiently explained. **In the case of an external (design) assignment:** needs, wishes and demands of the client are not or insufficiently expressed in the problem statement and/or the description and justification are inadequate.
55-64	Concepts and terminology used are largely defined and appropriately used. Sometimes reference is made to theories, models and working methods of the discipline. A brief literature review has been performed although sufficient literature on the subject is available. The problem statement and research questions are sufficiently clear and researchable. The social and/or scientific relevance of the research is somewhat but not very clearly addressed and the choices or suppositions made are briefly explained. The relationship between the statement of the problem and the literature review is expressed in a limited manner. **In the case of an external (design) assignment:** needs, wishes and demands of the client are (somewhat) expressed in the statement of the problem and the description and justification are adequate.
65-74	The used concepts, terminology, theories, models and working methods of the discipline are appropriately used, often in interrelation or in combination with each other, which indicates insight in the material. The literature review offers a fitting framework for the problem statement, but is not very extensive. The problem statement and research questions are clearly indicated and researchable. The social and/or scientific relevance of the research is explained and the choices or suppositions made are explained. **In the case of an external (design) assignment:** needs, wishes and demands of the client have been translated into the statement of the problem with a good description and justification.
75-84	A multitude of concepts, terminology, theories, models and working methods of the discipline are appropriately used, often in interrelation with each other, but also critically, all of which shows that the student is well versed in the domain. The literature review is fairly extensive and thorough and the problem statement is carefully justified and embedded in the theoretical framework. The problem statement and research questions are clearly indicated and researchable. The social and/or scientific relevance of the research is explained in a comprehensible manner by making use of the literature. Choices or suppositions are explained in a clear manner. **In the case of an external (design) assignment:** needs, wishes and demands of the client have been properly translated into the problem statement, with a clear description and justification.
85-100	The way in which the student uses the multitude of concepts, terminology, theories, models and working methods of the discipline shows that he/she is extremely well versed in the discipline and the chosen area of specialization and that he/she can clearly see and make the interrelations and connections. The literature review is of high quality, if relevant literature with many and remarkable sources are used concerning the impact of the relevancy of the literature in specific magazines and articles. The problem statement is inventive and concretely formulated and it is firmly and thoroughly rooted in recent scientific research. The social and/or scientific relevance of the research is comprehensibly substantiated and all choices and suppositions made in that context are clearly demonstrated. **In the case of an external (design) assignment:** needs, wishes and demands have been translated extremely well into a fitting statement of the problem, with a very clear description and justification.

2. Research method(s) and analysis	
0-54	The chosen research method(s) and instruments and/or design do not correspond well to the problem statement and the theoretical framework. The collection of data is too limited and/or there are doubts about the validity and reliability of the data, prompted by the unclear or incorrect way in which the student acquired and/or processed and displayed the data. The chosen analysis method is too simple and/or the analysis has not been correctly executed and has deficiencies. **In the case of an external (design) assignment:** the design approach has been improperly or unverifiable applied and has not lead to an adequate and high-quality design (intervention) either.
55-64	The student has selected one or more suitable research methods and suitable instruments and/or an appropriate design, but extra help was required and/or the argumentation is weak. The collection of data is limited in nature and could have been more extensive or of better quality. There is sufficient faith in the validity and reliability of the data and its processing, but the justification could have been better and/or there are still some deficiencies or uncertainties. The chosen analysis is sufficiently advanced and the results are comprehensible, but the relation to the problem statement not very relevant. **In the case of an external (design) assignment:** the design approach has been applied fairly rigidly or not always systematically, leading to a sufficient, but not high-quality result.
65-74	The chosen research method(s) and instruments and/or design correspond to the problem statement and the theoretical framework. There is faith in the validity and reliability of the data and its processing, partly based on an adequate justification. There are virtually no deficiencies or uncertainties. The more advanced analysis and its results are comprehensible and the relation to the problem statement is clear. **In the case of an external (design) assignment:** the design approach has been appropriately applied, thus contributing to an intervention or instrument of good quality.
75-84	The research method(s) and instruments and/or design chosen by the student, as well as the advanced analysis method have been established mostly independently and choices are clearly justified from the perspective of the problem statement and the theoretical framework. The acquisition of the data took place in an adequate fashion and has led to a high-quality collection of data. The way in which the data have been processed has been meticulously documented and justified. The advanced analysis has been skillfully performed and shows a clear insight into the material. **In the case of an external (design) assignment:** the design approach has been applied in a suitable and careful manner and has led to a design of good quality.
85-100	The research method(s) and instruments and/or design chosen by the student, as well as the advanced analysis method have been established highly independently and stand out because of their originality and/or complexity. The acquisition of data took place in a very adequate manner and/or under difficult circumstances, which the student handled very well. The result is a high-quality collection of data. The way in which the data have been processed is meticulously displayed and justified (on publication level). The advanced analysis has been performed very skillfully and shows remarkable insight in the material. **In the case of an external (design) assignment:** the design approach has been applied very well and has led to a high-quality, remarkable design.

3. Conclusion, reflection, discussion	
0-54	It is not clear from the conclusion if and why the research question has now been answered. The student is unable to lift the conclusions to a higher level (abstraction, generalization) and fails to sufficiently clarify what the practical, social and/or scientific meaning of the performed research is. Connections with findings from the literature review are not or hardly made. The student's reflection on the performed research is very limited and/or the student is insufficiently critical with regard to the strong/weak points of the performed research and the implications of the weak points. In the case of an argument, the arguments used are insufficiently or not substantiated. The performed research contributes little to nothing to the development of new knowledge and ideas. Either because of the quality of the research or because the research does not add anything to what is already known. A proposal for follow-up research is lacking or the proposal does not logically follow from the research, is unachievable or has already been performed frequently.
55-64	It is sufficiently clear from the conclusion if and if so, to what extent the research question has now been answered. Arguments are given for support, but the entire argument is not very strong. The practical, social and/or scientific relevance of the research is addressed in the discussion and the student attempts to take it a step further than the specific situation as researched, but the abstraction or generalization is limited. The connections made with existing literature and recent research is limited. The student reflects on the research, but is not very critical and makes few statements about the implications of 'weak' points. The performed research contributes somewhat to the development of new knowledge and ideas. A proposal for a follow-up research has been made, but the substantiation for it is very brief.
65-74	It is clear from the conclusion if and if so, to what extent the research question has been answered. Appropriate arguments are used to support the conclusion. In the review, the student takes it a step further than the specific situation and manages to place his/her own research and the results into a somewhat broader context. The practical, social and/or scientific relevance of the research is addressed in the discussion and several connections are made with the performed literature review. De student reflects somewhat on the performed research, but not very thoroughly. However, the most important 'strong and weak points' of the research and the implications they cause are shown. The research contributes to the development of new knowledge and ideas and to the formation of theories, models and instruments. The student provides a well-substantiated proposal for a follow-up research.
75-84	The student argues in a comprehensible and convincing manner how the research has answered the initial research question. In the discussion, the research is placed in a broader social and societal perspective and connections are made with the findings from the performed literature review. The limitations, weak points and strong points of the current research are critically discussed and the implications are clearly expressed. When something is argued, the arguments used in support are well chosen and clearly expressed. In the review, the student shows that he/she is capable of abstraction and generalization. There is a clear case of development of new knowledge and ideas and a contribution to the formation of theories, models and instruments. The research offers a solid base for publication. Proposals for follow-up research are substantiated in an adequate and comprehensive manner on the basis of theoretical and practical considerations.
85-100	The student argues in a comprehensible and convincing manner how the research has answered the initial research question. In the discussion, the research is placed in a broader societal perspective and clear, sometimes even remarkable connections are made with the findings from the literature and recent scientific insights. In the review, the student shows to possess an intellectual level (regarding abstract thinking, generalization, making connections, critical thinking) that exceeds the average master-student's level. The limitations, weak and strong points of the research are discussed very critically and the implications are expressed in a clear manner. The work stands out because of its original and innovative nature or because the research forms an exceptionally good replica of an already existing research with relevant expansions. Therefore, the research clearly contributes to the development of new knowledge and ideas and to the formation of theories, models and instruments. The quality of the research report is such that it is suitable for (further development into) an article in a peer-reviewed academic journal or can be used as a contribution to a national or international conference. Proposals for a follow-up research are explained in a comprehensive and convincing manner on the basis of profound theoretical and practical considerations.

4. Written report	
0-54	An attempt has been made to properly structure the report, but the location of text is not always logical and the major and minor issues and subjective and empirical information have not been properly separated. The readability and the academic style are mediocre. Even after feedback and instructions, the thesis contains quite a few linguistic errors and the APA style has not always been applied consistently. **In the case of an external (design) assignment:** the justification of the design process, the results towards the client and other parties involved and a solution in the form of advice are present, but the quality of the information is low and/or the advice is not clearly evident (enough).
55-64	The structure and design are as they should be. Major and minor issues are not always distinguished properly, making the report somewhat more extensive than strictly necessary. It is fairly readable and an academic style of writing is used. There are a few small linguistic errors, but not many. The APA style has largely been applied correctly. **In the case of an external (design) assignment:** the justification of the design process, the results towards the client and other parties involved and a solution in the form of advice are present and fairly clear. The client is sufficiently satisfied with the end result.
65-74	The report is properly readable, partly because of a well-chosen structure and design and because of conciseness. An academic style of writing is used. Errors in language use are minimal and the design and finishing have been done according to the academic standard and style (APA). **In the case of an external (design) assignment:** the justification of the design process, the results towards the client and other parties involved and a solution in the form of advice are expressed appropriately. The client is satisfied with the end result.
75-84	The report is characterized by good readability, a concise, academic style of writing and a clear structure and design. The language use is correct and the design and finishing have been done according to the academic standard and style (APA). **In the case of an external (design) assignment:** the justification of the design process, the results towards the client and other parties involved and a solution in the form of advice are clearly expressed and substantiated. The client is very satisfied with the end result.
85-100	The report is characterized by a very good style of writing. Academic conventions with regard to style of writing, lay-out and finishing are followed meticulously. The report is at the level of an academically accepted research report and the information, transposed into an article, is publishable and suitable for a peer-reviewed academic journal. **In the case of an external (design) assignment:** the justification of the design process, the results towards the client and other parties involved and a solution in the form of advice are of very high quality. The client is extremely satisfied with and full of praise about the end result.

5. Process and functioning of the student	
0-54	The working and learning attitude shown by the student is insufficient; the student needed quite a lot of guidance, substantive instructions and help in solving problems. The collaboration was still too defined by a teacher-student attitude. The student was of good will, but his/her personal initiative was very limited and the student had difficulty keeping him/herself motivated and continue working. Feedback did not always lead to (timely made) desired changes. The student needed to be encouraged multiple times to think about his/her own behaviour and work in a reflective manner. The student needed to be stimulated to us a project-based approach and to prepare schedules, and did not always act accordingly. The student did not (always) come timely forward with problems. The student did not always honour the agreements (adequately) and the communication with the supervisor and other parties involved, such as a client, did not go according to everyone's satisfaction. If ethical values played a role when acting within the framework of the assignment (professional ethics), it needed to be pointed out the student and/or the student was unable to act in an appropriate fashion without help.
55-64	The student had an only just adequate working and learning attitude. The student was the driving force during the project, but there was still a frequent need for guidance, substantive supervision and help in solving problems. After help was given, the student did always manage to continue the process in a good way. The collaboration generally went well. Sometimes the student clearly showed initiative and was generally committed to the project. Feedback was taken in and in general led to desired changes. The student did need to be encouraged regularly to think about his/her own behaviour and work in a reflective manner, but he/she made progress in time and accordingly came to better insights. The student made a schedule for and kept to it reasonably well. The student e came forward whenever a problem occurred that influenced the schedule and adjusted the schedule accordingly. Agreements were generally complied with properly. The communication with the client and other parties involved went adequately. If ethical values played a role when acting within the framework of the assignment (professional ethics), the student showed to know these values and acted upon them, though some help was still needed every now and then.
65-74	The student demonstrated a good working and learning attitude during the entire process. The student set the direction, showed dedication, showed initiative and regularly came up with solutions for problems him/herself. The student worked in a project-based approach and honoured the agreements made. Adjustments to the schedule were being justified. The collaboration and communication with all parties involved was adequate and came to pass in a practical and pleasant manner. The support required of the supervisor remained limited to what can usually be expected or somewhat less. If ethical values played a role when acting within the framework of the assignment (professional ethics), the student showed to know these values and acted upon them.
75-84	The student demonstrated a very good working and learning attitude during the entire process. The student needed little guidance and substantive supervision, he/she operated mostly independently. The student was critical of his/her own work, showed much dedication, showed initiative and often came up with good solutions for problems. The student worked in a project-based approach. The student always honoured the schedules and agreements. The collaboration with all of the involved was defined by its pleasant and practical nature. If ethical values played a role when acting within the framework of the assignment (professional ethics), the student showed to know these values and acted upon them.
85-100	The student demonstrated an exceptionally professional working and learning attitude during the entire process. Very little guidance or substantive supervision was necessary. The student was very focused on quality, was critical of his/her own work and behaviour, showed initiative and often came up with creative and good solutions for problems. The student worked in a project-based approach. The student honoured the schedules and agreements carefully. The collaboration with all of the involved was defined by its pleasant and practical nature and regularly featured substantive discussions of a high degree. If ethical values played a role when acting within the framework of the assignment (professional ethics), the student showed to know these values and how to act upon them.

6. Oral Presentation and defence	
0-54	The presentation was difficult to follow because there was a lack of clear structure, the information density was too high or low or too much detailed information was used, the information was not told in an interesting fashion, or the argumentation or justification needed was lacking or difficult to follow. The media resources used were not employed with competence. The student was having a lot of difficulty answering the more critical questions and did not always come to a satisfactory answer when the questions were of a more theoretical nature or broader in aspect than their own research. **In the case of an external (design) assignment:** results have not been orally passed on to the client. Or, if a presentation has been given, it was of unsatisfactory quality and did not contain any clear advice.
55-64	For the presentation, attention was paid to structure and information density and the presentation was easy to follow, but the major and minor issues could have been better distinguished. The argumentation and justification were not always that strong. The manner of presentation could have been more appealing. There were a few small imperfections with regard to the use of media, but these did not distract from the presentation. Most questions could be answered, even the more critical or theoretical ones, but the answers given were not always deemed sufficient. **In the case of an external (design) assignment:** the results were personally passed on to the client. If a presentation has been given, it was of sufficient quality and contained an advice.
65-74	For the presentation, attention was paid to the structure and the information density was appropriate, i.e. concise and with a proper distinction between the major and minor issues. The argumentation and justification during the presentation were sufficient. The manner of presentation was appealing and the presentation was audible and easy to follow. Media resources were employed well. All questions could be answered, even the critical questions about the research and the theoretically-oriented questions, but the defence was not equally strong on all points. **In the case of an external (design) assignment:** the results were personally passed on to the client. If a presentation has been given, it was of sufficient quality and contained an advice.
75-84	The presentation was of good quality where the structure of the content, the relevance, information density, conciseness, and the given arguments and justification were concerned. The manner of presentation was very appealing and the media resources were skillfully employed. The student was able to answer all critical and theoretical questions in a clear and substantively good manner. **In the case of an external (design) assignment: t**he results were personally passed on to the client. If a presentation has been given, it was of good quality with clearly worded and convincing advice about which the client expressed his/her satisfaction.
85-100	The presentation was of exceptional quality where the structure of the content was concerned. The offered presentation excelled in conciseness as well as informative value. The ways in which arguments were given and the research was justified were very convincing. The manner of presentation was very appealing and looked highly professional. The student was able to answer all questions in a very clear and substantively strong manner. Due to the way the presentation was executed, the following questions and the discussion were of a very high standard and the student managed to handle both the questions and the discussion exceptionally well. In terms of standard the presentation would not have looked out of place at an academic conference or congress. **In the case of an external (design) assignment:** the results were personally passed on to the client. If a presentation has been given, it was of high quality with clearly worded and convincing advice about which the client was very jubilant.

Worksheet – EST Master's thesis assessment

Filled in by: _____ Date: _____ Assessor: _____

Assessment on content. 1-3		Partial score	Score per element	Comments
1. Problem statement and theoretical framework				
1a	Various (core) concepts, theories, models and working methods of the discipline are appropriately chosen and used (in combination) and show a thorough understanding of the meaning and interrelationships as well as good knowledge of the domain and area of specialization.			
1b	An extensive and in-depth literature review has been performed as a theoretical framework for the problem statement.			
1c	The problem statement and/or the research question are explicit, carefully developed and formulated (including preconditions, limitations, sub-questions etc.), and researchable (providing direction to the research strategy).			
1d	The problem statement is justified and embedded in a theoretical framework; the choices and suppositions made are clearly indicated and the scientific and social relevance of this research is clearly and adequately substantiated.			
1e	**In the case of an external (design) assignment:** needs, wishes and demands of the client are adequately translated into a specific statement of the problem, a characteristic which is expressed in the description and the justification.			
2. Research method(s) and analysis				
2a	A well-founded choice of research method(s) and instruments and/or design has been made, corresponding to the statement of the problem and partly based on the theoretical framework.			
2b	The acquisition of the data has taken place in an adequate and transparent manner, making the data valid and reliable.			
2c	The choice for the method of processing and the processing of the data has taken place in a comprehensible and transparent manner; the results are valid and reliable.			
2d	The student has performed a correct, advanced analysis, which logically arose from the problem statement and results.			
2e	**In the case of an external (design) assignment:** the design approach has been applied adequately, including the implementation and evaluation, and has resulted in a high-quality design of intervention(s) or instrument(s).			
3. Conclusion, reflection, discussion				
3a	In the conclusion, the initial problem statement, research question is answered.			
3b	The students has managed to lift the conclusions to a higher level (abstraction, generalization) and an interpretation and consideration are given concerning the practical, social and/or scientific relevance of the research (related to the theoretical framework, recent research), while attention is paid to ethical aspects.			
3c	The student has critically assessed and discussed the research and the results (reflection, good argument and argumentation, recognition of strong/weak points, putting the research into perspective). The student has reflected on the implications of strong/weak points of the research and on possible solutions.			
3d	The thesis has contributed to the development of new knowledge and ideas and has the formation of theories, models and instruments (this could also be: valid replica with expansion of existing research).			
3e	The student has made a proposal for follow-up research based on practical and theoretical considerations.			
Total score Content (1 + 2 + 3) / 3:				

4. Written report		Partial score	Score of element	*Comments*
There is				
4a	A logical, consistent design and structure. A concise reprort of the total research.			
4b	Correct language use.			
4c	Good readability, an academic style of writing (concise, according to the conventions for publications in the discipline).		——	
4d	A correct presentation and lay-out of data in tables, figures etc. and correct references to literary sources, other information sources etc. (according to conventions, APA style).			
4e	**In the case of an external (design) assignment:** audience-oriented justification of the design process and results towards the client and other parties involved; solution in the form of advice tailored to the client.			
Total score Written report:				

5. Process and functioning of the student		Partial score	Score of element	*Comments*
There is				
5a	A high level of independence; limited need for help and supervision.			
5b	Dedication and initiative.			
5c	An ability to reflect and deal with feedback (learning capacity).			
5d	An ability to deal with setbacks or a decrease in motivation; being able to find solutions for problems			
5e	A project-based, methodical and goal-oriented method of working.		——	
5f	Completion within the scheduled time.			
5g	Good contact, coordination and communication and a pleasant and fruitful collaboration with the parties involved, such as the internal supervisor(s) and, if applicable, the external client and other external involved parties.			
5h	If ethical values played a role when acting within the framework of the assignment (professional ethics), the student has shown to know these values and to adequately apply them.			
Total score Process and functioning:				

Criterion 6. Oral presentation and defence		Partial score	Score of element	*Comments*
6a	Good argument, good argumentation and justification.			
6b	The presentation is concise, relevant and informative. Good distinction between major and minor issues.			
6c	The presentation is appealing, has an appropriate and clear structure, and is understandable and comprehensibly structured.		——	
6d	Adequate use of media resources			
6e	Adequate answers to critical questions about the research and to theoretically-oriented questions about the subject of the research.			
6f	**In the case of an external (design) assignment:** a presentation about the design process and the results, tailored to the client and other parties involved; the solution is given in the form of clear and convincing advice.			
Total score Oral presentation and defence:				

General remarks