# EDUCATION AND LEARNING SCIENCES GROUP

MSc Thesis Manual

for ELS-80424/ ELS-80427/ ELS-80430/ ELS-80433/ ELS-80436/ ELS-80439

*(Updated as of 17 March 2020)*


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NB: To obtain forms that are annexes to this manual, please visit: https://www.wur.nl/en/Research-Results/Chair-groups/Social-Sciences/Education-and-Learning-Sciences-1/Instructions-and-contracts.htm

# 1 INTRODUCTION

Welcome at the Education and Learning Sciences (ELS) Group! We are looking forward to an inspiring and successful learning trajectory with you. Before you embark on your thesis work, you are expected to read this thesis manual carefully. Please note that you as a student should take initiative, be proactive during the thesis trajectory, and take the lead in ensuring that you follow the steps as described in this manual.

This thesis manual describes the rules and procedures for the thesis writing and supervision process of an MSc thesis at the Education and Learning Sciences Group (part of the Social Sciences Group of Wageningen University). This thesis manual is meant for students and staff and is part of the internal quality assurance system of the MSc programs involved that plays a crucial role in accreditation processes. This protocol applies to both the major thesis of the MSc programs and to minor theses. In this thesis manual, you will find information on how to go about your thesis, from the start (i.e. registration), all the way to the end (i.e. submission of the final report).

This thesis manual also includes information on the goal of the thesis, the role of the thesis agreement, the admission requirements, the responsibilities of the key actors, the assessment procedure, data management, advice about plagiarism and the submission requirements of the final thesis. Related forms like the *MSc Thesis Agreement*, the *MSc Thesis Assessment Form* can be found online, and others like *Rubric for Assessment of the MSc Thesis* and a format for the cover page of the thesis can be found in the appendices in this manual. If there are items in this thesis manual that are not clear to you, please feel free to approach your supervisor and seek clarification.

## 1.1 Pre-requisites

Depending on the MSc programme you follow, a thesis at ELS has different pre-requisites.

For ***MES students***, two courses are required:

- ELS-31806: Environmental Education and Learning for Sustainability, and
- CPT-24306: Risk Communication **OR** CPT-22306: Communicating for Sustainability and Responsible Innovation
- Although not pre-requisite, two other ELS-courses might specifically be interesting to follow before or during your thesis i.e. ELS-32806 Teaching, Learning and Capacity Building for Sustainable Development and ELS-53506 Empowerment for Sustainability.

For ***MOA students***, if you would like to do a thesis with the ELS group, one ELS course (minimally 6 credits) is required:

- ELS-31806: Environmental Education and Learning for Sustainability

For ***MAS students***, if you choose the education profile and would like to do a thesis with the ELS group, you have to replace your internship with a second thesis of at least 24 credits and in consultation with ELS, two additional 6 credit courses.

If your study program is not listed above, please check the online Study Handbook to see if there are any specific requirements (e.g. mandatory courses) for your program. In

addition, please check with your study advisor if there are any specific requirements or if you are allowed to write a thesis with the ELS department. Finally, you should be officially registered as a Wageningen University MSc student.

Only a few MSc programs do include formal educational tracks including the official allowance to carry out a thesis at ELS. In case your MSc program does not formally allow for an ELS thesis, feel free to contact the ELS thesis coordinator to discuss opportunities for co-supervision of ELS with another formally allowed chair group.

Once you have the above information checked out, or if you are still unsure, you can contact the ELS thesis coordinator, Judith Gulikers (judith.gulikers@wur.nl), for more information or to set up a meeting to discuss the possibilities.

## 1.2 Supervisors and Examiners

Based on your interests or your chosen topic, you will be assigned supervisor(s) for your thesis. Your supervisor(s) will be involved in the design and approval of your research plan, the guidance of your research journey, and the approval and grading of your final thesis and presentation.

Depending on the topic, you will be assigned either one or two supervisors. Your supervisor(s) will also be your examiners. Next, a second (in case of one supervisor) or third (in case of two supervisors) examiner will be appointed to objectively assess your work. Your daily, first, supervisor may be one of the ELS staff members, but can also be one of the PhD students. The two possibilities of appointing supervisors and examiners are illustrated in Table 1. Please also take note of the number of supervision hours (Table 2) you will get according to the number of credits of your thesis when planning your schedule.

Note: you may carry out a research project for an external commissioner. However, assessment of the thesis product and thesis process are always the responsibility of examiners appointed at the university. The external commissioner has no say in the thesis assessment.

*Table 1. Possibilities of supervision while doing a thesis at Education and Learning Sciences Group*

| | **Supervisor(s)** | **Examiners** |
|---|---|---|
| **Minor/Major Thesis** | Only 1 supervisor (ELS) | Another staff from ELS will be appointed as 2nd Examiner. |
| | 1st Supervisor (ELS) & 2nd Supervisor (ELS/from another group) | Your supervisors will be your examiners. A third examiner will be appointed. |

*Table 2. Number of available supervisory hours based on the number of credits of thesis*

| **Number of credits of thesis** | **Project Duration** | **Available supervisory hours (average)** |
|---|---|---|
| Minor thesis 24 ects | 17 weeks | 30 hours |
| Major thesis 30-36 ects | 25 weeks | 38 hours |

# 2 LEARNING OUTCOMES OF DOING A THESIS IN ELS

## 2.1 Goal of writing a thesis

The overall goal of the MSc thesis is the development of research skills and the ability to analyse and present research results in a systematic and clear way. The thesis is the culmination of the MSc study program in which you, as the student will have to show that you are able to design and conduct social science research at an academic level and theoretically reflect on a particular field of research relevant to the MSc program at hand.

The thesis process, in which you will have to independently address a topic approved by the chair group, is an individual learning process that can be started and finished at any time during the academic year, provided that the admission requirements/pre-requisites have been met. Upon completion of the MSc thesis, you will be capable to independently conduct social science research. Hence, the main responsibility for a successful thesis process rests on you – you will be expected to take an active role and display growing independence and maturity, while also being able to consult regularly with the assigned supervisor regarding progress.

After successful completion of the thesis, you are expected to be able to:

- Set up and conduct a scientific study from beginning to end;
- Write a comprehensive, consistent and concise scientific report following the conventions of scientific report writing; and
- Present and defend a scientific study.

Below you will find an elaborate description of the various aspects of the learning outcome that you will be expected to achieve within your thesis trajectory.

**Set up and conduct a scientific study from beginning to end**

- Explore the background of a given research problem and to critically review scientific literature;
- Define the boundaries and the aggregation level of the system to be studied;
- Formulate a project proposal, including research aims, research questions, a research plan and planning;
- Build a sound theoretical and methodological framework;
- Gather, efficiently analyse, interpret and evaluate relevant information;
- Plan and keep to the research plan (including timeline of project) and change it if needed;
- Demonstrate commitment, perseverance, initiative and creativity when investigating a research question or performing a design project;
- Work independently as well as efficiently, and demonstrate that you know when to ask help from your supervisors (or others) and how to handle any comments.

## Write a comprehensive, consistent and concise scientific report following the conventions of scientific report writing

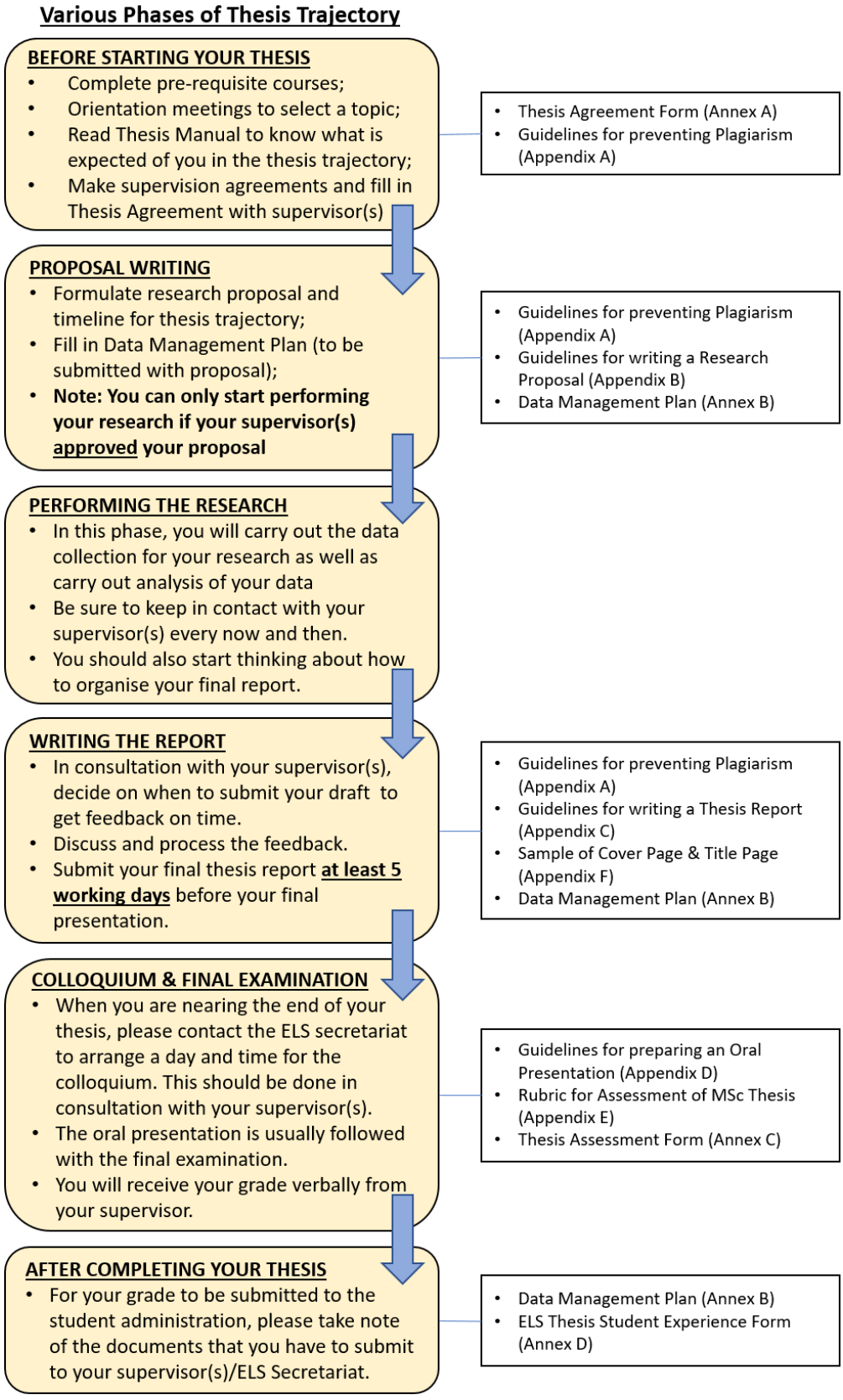
- Structure your thesis report in a scientific way, guiding the reader through your line of reasoning;
- Present the major finding(s) in a clear and comprehensible way, and use appropriate tables and figures where necessary;
- Introduce and answer the research questions, critically discuss the results and be able to formulate clear and sound conclusions (and recommendations, if specified);
- Evaluate and discuss the contribution of your results to the development of the thesis topic;
- Use an appropriate writing style and wording to write a comprehensive, consistent and concise thesis report;
- Be consistent in the reference style that you will apply.

## Present and defend a scientific study

- Provide a structured, clear and concise presentation for a scientific audience including proper use of visual aids, within the stipulated time given, and showing to be able to adjust accordingly to signals from the audience;
- Respond appropriately and giving clear and concise answers to questions from the audience;
- Defend the thesis in an oral defence with supervisors and examiners and show that you have grasped the essence of your research topics and are aware of on-going discussions on the topic.

# 3 THE PROCESS OF WRITING AN MSC THESIS

In this section, the various phases of writing an MSc thesis will be elaborated. The flow chart below gives a brief overview of the various activities in each phase as well as the documents you might need to fill out and submit at each different phase. Please read the following sections for more details on the various phases.



## 3.1 Before starting your thesis

### 3.1.1 Orientation meeting to select a topic

To select a topic, please discuss the possible options with one of the possible ELS staff members and/or the thesis coordinator. To prepare for this orientation meeting, you can have a look at the overview of the ELS research topics and possible thesis subjects available from our website. However, we also appreciate your own input for interesting thesis topics. We ask you to summarize the key findings of the orientation meeting and send them by email to the relevant ELS staff members for further consultation. Depending on the outcome of the orientation meeting, you may have a second meeting with another potential supervisor of the ELS group before deciding on the final topic of your thesis.

### 3.1.2 Thesis Agreement

Once it is clear what your topic will be, and what is expected from you in terms of performance levels, you are kindly requested to fill in the *Thesis Agreement Form* (Annex A) in consultation with your supervisor and if possible, in consultation with your co-supervisor. In this form, you will register commitments regarding MSc-thesis work, including commitments on frequency of supervision meetings, working hours and working plan. Your study adviser also needs to sign to state that you have enough credits (ECTS) to start a thesis.

The *Thesis Agreement Form* is a way to register the appointments you make with your supervisor(s). The *Thesis Agreement* can be renewed and adapted to new situations if you and/or supervisor(s) feel the need for modifications. It is a way of registering your student rights during the thesis work.

Please scan a copy of the signed and filled *Thesis Agreement Form* for your own keeping and email a copy to your supervisor(s). A printed copy of the signed *Thesis Agreement Form* should be handed in at the ELS secretariat at the start of your thesis.

### 3.1.3 Working Place

ELS has a few flexible working spaces available. Please contact the ELS secretariat and/or your supervisor(s) if you like to make use of those flex spaces. They will check the availability of spaces and confirm if you are allowed to use one of those spaces.

### 3.1.4 Data Management Plan

Take note that at the end of your thesis, you will be required to submit your data (raw data collected as well as analysed data) to your supervisor(s)/ELS secretariat along with the *Data Management Plan* (Annex B). Please start reading this form already as you will be required to submit a draft version of the *Data Management Plan* together with your thesis proposal. You should submit your data along with the final version of your *Data Management Plan* when you submit your thesis report.

### 3.1.5 Plagiarism

Please note that in Take note that when you are writing your thesis that you do not lift complete sentences from another person's work. This is considered plagiarism and it is considered a serious form of fraud. In *APPENDIX A: Guidelines for preventing Plagiarism* you can find information about several forms of plagiarism. Please read this information carefully.

## 3.2 Proposal writing

When you start your thesis work, you have chosen a topic and probably discussed a possible research focus with your supervisor. Next step is a more detailed project proposal (please refer to *APPENDIX B: Guidelines for writing a Research Proposal*). It will usually take several weeks to complete a good proposal. This phase is a preparation for the actual research that will be carried out in the next phase. The proposal will be assessed by your supervisor(s). Note: the proposal should be approved before you can officially move on to the next phase.

The most important activities within this phase are:

- To explore the background of the chosen research topic and to critically review scientific literature using several search engines. These are available through library.wur.nl;
- To define causes and effects of the issue at hand;
- To define the boundaries and the aggregation level of the issue at hand;
- To specify which elements of the issue to be studied;
- To formulate a project proposal, including research aims, research questions, methods for data collection and analysis, prospected output (product), and a planning; and
- To think and draft a plan to manage data collected during the research.

Developing an adequate research proposal is your responsibility. The proposal constitutes the thesis' foundations and often forms an essential part of the introduction chapter of your final thesis report. In this proposal writing phase, you will have regular meetings with your supervisor(s) to discuss progress. At a certain point, you set a date for submitting the proposal. Your supervisor(s) will assess the quality of the proposal and give you feedback on basic scientific quality criteria (i.e. problem statement, objective and research questions, research design, and English language (style and grammar)). Your supervisor will inform you if you are allowed to proceed to the next phase ('green light'), and/or which adjustments are needed before proceeding ('orange' or 'red' light). In case the quality of the proposal remains insufficient despite proper advice from your supervisor(s), the proposal may be rejected. A consequence of rejection may be that another subject or even another chair group may have to be chosen.

Your supervisor can also stimulate you to present your research proposal at an ELS Lunch meeting to get feedback and comments. However, a presentation of your proposal is not mandatory. Please also take note that you will have to submit a draft version of the *Data Management Plan* (Annex B) with your thesis proposal.

## 3.3 Performing the research

When your research proposal has been approved, you may proceed into the research phase. In this research phase, the important activities are to:

- Perform the research as outlined in the project proposal;
- Gather, analyse, interpret and evaluate data and other relevant information;
- Keep to the research plan (project proposal), and change it if needed;
- Answer the research questions, critically discuss the results and draw conclusions; and

During this phase, you and your supervisor will closely work together, especially at the beginning of this phase. When the research proceeds, you will learn to work more individually, and take your own initiatives. A fieldwork period may be part of this research phase, and sometimes it might be abroad. In this phase of your thesis trajectory, you should also start thinking about how to organise the final report. Meetings with your supervisor(s) will take place on a regular basis, as agreed upon in the thesis agreement. In case of fieldwork abroad, regular email or skype contact is advised. During these meetings, the progress is discussed, as well as possible problems. Be aware that your supervisor(s) may have other research and teaching responsibilities and can be busy. You are responsible to regularly report on progress, ask advice and request for appointments whenever necessary.

## 3.4 Writing the report & presenting your research

After you have accomplished your research (field work, analysis and preparation of results), you will have to document this in your thesis report. The thesis report should be written in English (exceptions to be discussed) and should be as concise as possible: the core-text should not be longer than approximately 50-60 pages (1.5 spacing, 11-12pt font). **Write concisely and comprehensively and structure your thesis in a logical way!** Additional material (e.g. questionnaires, basic data etc) can be added in appendices. In exceptional cases, your supervisor could suggest you to report your study in a journal manuscript.

During the writing phase, you will meet with your supervisors on a regular basis. Providing your supervisors with the drafts of the thesis should be done in close communication with your supervisor but it is all your responsibility. Writing a thesis is usually a time-consuming activity. Both students and supervisor(s) need to be aware from the beginning that planning a project is not an easy task. We think it is important that all the work for the thesis (including report writing and presenting the results) is in principle finalised within the period agreed upon at the start of the project. Learning how to plan is an important part of the project. Below you will find a more detailed overview of main activities in this writing phase.

***Finalisation of the report***

You are to some extent free to choose the format of the report but it should, in any case, include the following sections and be in the order of *Preface*, *Summary*, *Introduction*, *Methods*, *Results*, *Discussion*, *Conclusions (and Recommendations)*, *References*, and *Appendices*. Please also check *APPENDIX C: Guidelines for writing a Thesis Report* for a more detailed explanation on what each of the recommended sections should have.

During the reporting phase, you will also produce different (intermediate) products:

***(1) Annotated Outline***

At the beginning of the report writing phase, you should hand in an annotated outline of your thesis report. This is a document of a few pages with the complete table of contents and a brief description of the content of each chapter.

***(2) Intermediate Drafts***

Depending on the topic and arrangements with your supervisor, several parts of the report will be written and discussed. Your supervisor(s) may suggest major changes in the structure and content. Discussing the drafts are meant to be moments for reflection and evaluation of your work to discuss if all is going according to plan and if the final result will (at least) be satisfactory.

***(3) Final Draft***

The final draft of the report (~95% completed) needs to be handed in as an MS-Word document to your supervisor(s) **at least 3-4 working weeks** before the end of the thesis project (and before your final presentation). This version is almost finished (at 95% of the text ready) and, from your point of view, only needs minor editorial work (e.g. on some figures, tables, references and/or overall layout; Please also see *APPENDIX F: Sample of Cover Page & Title Page*.) The summary is included. This draft will be read by your supervisors and feedback will be given. Note: please take into consideration that your supervisors need at least a week to read and comment on your draft report.

***(4) Final Report***

The final report needs to be handed in as a PDF document to your supervisor(s) and the second examiner **at least five working days** before your final presentation and final meeting (defence). Be sure to plan accordingly and let the relevant parties know if and when you want to finalise your studies before a specific date. This is especially important for the summer period (July and August), when your supervisor(s) and examiners may have holidays.

## 3.5 Oral presentation & final examination

When you are nearing the end of your thesis project, please contact the ELS secretariat in consultation with your supervisor to arrange a day and time for the final colloquium. You will be asked to prepare a brief write-up of your project, which is essentially a summary of your project objectives, research questions and the methodology of your study. The secretariat will then, in consultation with you, send out an invitation, together with your write-up, to ELS staff and other staff, students and guests.

The oral presentation/final colloquium (including visuals) should be 20 minutes maximum, followed by 10 minutes for discussion. Please refer to *APPENDIX D: Guidelines for preparing an Oral* Presentation.

The oral presentation is usually followed with the final examination. During the examination meeting with your supervisor(s) and examiner, they will discuss your thesis work with you. After this discussion the grading will be finalised by your supervisors with the help of the *Thesis Assessment Form* (Annex C) (see Chapter 4).

## 3.6 After completing your thesis

Once you have finalised your thesis report and gotten your grade verbally from your supervisor, **take note that this does not yet mean your grade will be submitted to the student administration**. For your grade to be uploaded and submitted on time to the student administration please prepare and submit the following documents to your supervisor and (via your supervisor) to the ELS Secretariat:

- PDF-file of your final thesis report (your thesis will be archived in the library; we do not automatically publish your thesis or provide electronic access on the internet);
- Final version of the ***Data Management Plan*** together with your datasets that you worked on; and
- The ***ELS Thesis Students Experience form***[1] (Annex D).

**Please note if the last date for grades to be uploaded is 31 August, please make sure to submit your documents at least one day before.**

Additionally, if the research findings are innovative and interesting, and your thesis has sufficient scientific quality, your supervisors and examiners will stimulate you to use your thesis for a scientific or professional publication. Depending on the available resources (e.g. time), you or your supervisor should take a lead in writing such a paper or other publication and submitting it to a respective peer-reviewed scientific journal or other outlet. Generally, you and your supervisors will be co-authors.

Note: When you want to pursue a broader publication and outreach of your thesis results, you must discuss this first with your supervisor!

[1] For promotional and publicity purposes, the ELS department would like to request all students who have completed a thesis at ELS to write a few words about their thesis and their experiences. With your approval, this will be published on the ELS website. You can find a template of this form at this link.

# 4 GRADING

## 4.1 Assessment Criteria

The final assessment of the thesis is done with the help of the *MSc Thesis Assessment Form* (Annex C) used throughout the university thus serving as a general quality maintenance device for external evaluation and accreditation purposes. To make grading as transparent and objective as possible, a more extensive instrument called 'Rubric for assessment of MSc thesis' (*APPENDIX E: Rubric for Assessment of MSc Thesis*) has been developed for use in combination with the MSc Thesis Assessment Form. The rubric is a scoring scale containing, per item of the assessment form, criteria for the measurement of the level of performance for each single criterion. The general orientation of the clusters on the MSc Thesis Assessment Form is as follows:

*I. Research competence (30-60%)*

This part assesses the research competencies of the you as the student. So it is an evaluation of the you as a researcher. This evaluation is based on the experience of your supervisor(s) with you during the process of doing research, handling data and data analysis as well as writing the thesis report. The learning process and the degree of manifested professionalism as a prospective independent researcher will be taken into consideration, as well as your attitude in terms of enthusiasm, commitment, effort and initiative, independency, perseverance, originality and creativity. Other aspects relate to the your responsiveness to your supervisors' comments and the ability to work according to plan.

*II. Thesis report (30-60%)*

The product of your scientific work is the thesis report. This is a piece of scientific work that can be evaluated in the same way as any other written scientific work (like a journal article or a report). Based on the classical contents of a scientific report (Introduction-Materials and Methods-Results-Discussion-Conclusions) the aspects in this cluster assess the level of these different parts of the report. Your thesis report will be graded on (i) the relevance of research, clearness of goals and delineation of research; (ii) the theoretical underpinning and use of literature; (iii) the use of methods and data; (iv) critical reflection and discussion on the research performed; (v) the clarity of the conclusions and recommendations; and (vi) the writing skills. It is important that the person who evaluates the thesis report is not biased by positive or negative experiences with you as the student as the thesis report should be evaluated as a piece of work as such. This means that the examiner is the most important person to evaluate the thesis report.

*III. Colloquium (5-10%)*

During the colloquium, you will have to present your work to an audience consisting of fellow students and staff members. The visual and verbal quality of the presentation, as well as your responses to (critical) questions from the audience will be evaluated.

*IV. Oral Defence (5-10%)*

During the oral defence that concludes the thesis process, you will have to defend your thesis against critical comments of the examiner and the supervisor(s). In defending the thesis, you should show that you have knowledge of the study domain. This means that

you should not only defend what you did, but also why it was done in this particular way and not in another way, and thus show that you are able to academically reflect on your own work.

To allow for the special character or nature of the research conducted, the relative weight of the 4 clusters can vary within the indicated limits and as long as the weights sum up to 100. The first two clusters (research competence and thesis report) form the core of assessment and must total at least 80%. The Examining Board has set the standard for research competence on 30% and for the final thesis report on 60%, chair groups having the freedom to adjust the standard percentages between the indicated ranges to better suit the particularities of the kind of research conducted by the chair group in general or the student in particular. For the colloquium and the oral defence the standard percentage is 5%. Adjustments to these standards have to be specified in the MSc Thesis Agreement Form under item 9.

## 4.2 Meaning of grades

The final grade is a weight grade based on grades for a) your research skills, b) your research report, c) your oral presentation, and d) your thesis defence. The following guidelines are indicative for a distinction between the various grades. Note that this document only presents the meaning of grades <6, 6, 7, 8, 9 and 10. Intermediate points (e.g. 6.5 or 7.5) can also be given. These reflect performance in between full grades. Note that 10 is very rarely given in the Dutch grading system.

**Grade lower than 6:** This means that the student failed. The quality of his or her thesis work is overall insufficient.

**Grade 6:** The outcome of the study is acceptable, but below requirements in some respect; the student needed substantial and repeated help in designing the research questions, performing the research and/or writing the results. The final results are acceptable but the thesis has some major shortcomings (for instance in structure and/or clarity in style and/or grammar).

**Grade 7:** The outcome of the study (both thesis report and oral presentation) is sufficient; it meets the requirements. The student adequately developed the research proposal and elaborated the research questions according to expectations. The student needed some help but made efficient use of the supervision and showed sufficient progress in research and/or writing skills.

**Grade 8:** The outcome of the study is good. The thesis report is clearly structured, comprehensive and well-written. The student was creative in problem solving and worked quite independently. Supervision was more a scientific discussion than methodological guidance. The oral presentation was clear and was followed by an interesting discussion.

**Grade 9:** The thesis results include several new ideas or findings; the thesis report has minimal flaws and provides a good basis for a scientific publication. The student shows high potential for being an independent researcher. The oral presentation was

clear and followed by a discussion of high scientific quality.

**Grade 10:** The thesis is truly outstanding and a genuine advance in the scientific field addressed by the student. The results are suitable to submit for publication practically without further modification. The oral presentation was very good to excellent.

If the marks had to be explained in one word, the order would be: (6):acceptable; (7): sufficient; (8): good; (9): very good; and (10): excellent.

# 5 PEOPLE OF HELP DURING YOUR THESIS JOURNEY

If you face any serious problems or complaints having to do with supervisors or evaluation during your thesis work, there are several people of help at Wageningen University. Of course, the first one to contact is your supervisor, but if you feel like you cannot solve the problem with him/her, do not hesitate to contact others.

***(1) Your Supervisor***

If students and supervisors face serious problems during the thesis work, they are often concerned with a discrepancy between what was actually happening during the thesis work and what was agreed upon beforehand.

Be sure you make clear agreements on the supervision: how many hours are reserved for supervision, what are your supervisor's office hours, what are the periods your supervisor will be absent and who will replace him/her etc. Before you start your thesis work, these agreements you and your supervisor record in the *Thesis Agreement Form* (Annex A). In this contract you also write down agreements regarding reporting, facilities, evaluation etc. The contract will not prevent problems, but it will serve to support a solution to any problems that may occur despite the best intentions of both you and your supervisor.

Try to contact your supervisor regularly and don't hesitate to discuss problems in an early stage!

***(2) Your Examiner, the Thesis Coordinator or the Head of the group***

If you cannot solve the problem with your supervisor, you could contact your (1) examiner, (2) the ELS thesis coordinator or (3) the head of the ELS group. They will surely be willing to help you solve the problem.

***(3) Study Advisor***

Your Study Advisor is always available for questions, advice or comments concerning your study.

***(4) Student Counsellor***

Through the secretariat of the Dean's Office, an appointment can be made with one of the Deans for Students of Wageningen University. The Dean of Students confidentially supports students in practical and personal matters. He or she can be considered as a counsellor who can be contacted in case of personal problems, study problems and other questions.

# 6 APPENDICES

In the following pages you will find the various appendices:

***APPENDIX A: Guidelines for preventing Plagiarism***

***APPENDIX B: Guidelines for writing a Research Proposal***

***APPENDIX C: Guidelines for writing a Thesis Report***

***APPENDIX D: Guidelines for preparing an Oral Presentation***

***APPENDIX E: Rubric for Assessment of MSc Thesis***

***APPENDIX F: Sample of Cover Page & Title Page***

The following forms are listed as an Annex to the thesis manual. You may access the forms from the ELS website or directly on the following links:

***Annex A: Thesis Agreement Form***

You may access a copy of the Thesis Agreement Form here.

***Annex B: Data Management Plan***

You may access a copy of the Data Management Plan here.

***Annex C: Thesis Assessment Form***

You may access a copy of the Thesis Assessment Form here.

***Annex D: ELS Thesis Students Experience Form***

You may access a copy of the ELS Thesis Students Experience Form here.

# APPENDIX A: Guidelines for preventing Plagiarism

*(Plagiarism statement from the Environmental Policy Group of Wageningen University)*

## 1. Introduction and definition

The task of writing a paper or other assignment for a course sometimes lures students into using other's work, ideas, facts, texts, etc and represent it as their own. The goal of this statement is to distinguish between methods to do this in an appropriate way and methods that fall under plagiarism.[2] It is important for students to understand that plagiarism is considered as a very serious offense against academic norms and, hence subject to equally serious punishment.

"Plagiarism" is derived from the Latin *plagiarius*, 'plunderer', 'kidnapper'. It refers to intellectual theft, defined as "the false assumption of authorship: the wrongful act of taking the product of another person's mind, and presenting it as one's own"[3]. "To plagiarize is to give the impression that you wrote or thought something that you in fact borrowed from someone. While some plagiarize deliberately by copying or buying papers or soliciting unauthorized help, most plagiarism is accidental, but it is usually dealt with just as harshly as intentional plagiarism."[4] It is precisely to avoid discussion about what constitutes plagiarism and it's intentional character that we want students to understand the content of this document well.

The **sanction** in case of plagiarism is –based on WU policy (articles 35 and 36 of MSc Education/Examination Regulation):

The examiner informs the student and reports to the secretary of the WU Examination Committee the case of plagiarism. The examiner may utilize a plagiarism scanner to prove the case.

The commission will ask the student to express his/her view about the case.

Depending on the magnitude of the fraud the appropriate sanction will be assessed: a warning; a fail for the exam; exclusion of the exam for a maximum period of one a year or a combination of these sanctions.

In the following pages, you will first find several examples of plagiarism, then examples of accepted use of sources and ideas and finally some guidelines on how to avoid plagiarism. We urge students to carefully read these pages and when in doubt talk to their instructors in order to prevent later problems.

[2] See Department of English Northern Illinois University, http://www.engl.niu.edu/fycomp/plag.html
[3] MLA Style Manual, 2nd ed. New York: MLA 1998, page 146
[4] US Naval Academy Plagiarism policy

## 2. Examples of plagiarism[5]

### A. DIRECT PLAGIARISM

**Source Material**

From: *Emotion in the Human Face: Guidelines for Research and an Integration of Findings* by Paul Ekman, Wallace V. Friesen, Phoebe Ellsworth (New York: Pergamon Press, Inc), p.1. (Psychology source)

The human face in repose and in movement, at the moment of death as in life, in silence and in speech, when alone and with others, when seen or sensed from within, in actuality or as represented in art or recorded by the camera is a commanding, complicated, and at times confusing source of information. The face is commanding because of its very visibility and omnipresence. While sounds and speech are intermittent, the face even in repose can be informative. And, except by veils or masks, the face cannot be hidden from view. There is no facial manoeuvre equivalent to putting one's hands in one's pockets. Further, the face is the location for sensory inputs, life-necessary intake, and communicative output. The face is the site for the sense receptors of taste, smell, sight, and hearing, the intake organs for food, water, and air, and the output location for speech. The face is also commanding because of its role in early development; it is prior to language in the communication between parent and child.

**Misuse of source** (italicized passages indicate direct plagiarism)

Many experts agree that the *human face*, whether *in repose or in movement, is a commanding, complicated, and sometimes confusing source of information. The face is commanding because it's visible and omnipresent.* Although *sounds and speech may be intermittent, the face even in repose* may give information. *And, except by veils or masks, the face cannot be hidden. Also, the face is the location for sensory inputs, life-supporting intake,* and communication.

**Comment**

The plagiarized passage is an almost verbatim copy of the original source. The write has compressed the author's opinions into fewer sentences by omitting several phrases and sentences. But this compression does not disguise the writer's reliance on this text for the concepts he passes off as his own. The writer tries to disguise his indebtedness by beginning with the phrase "Many experts agree that..." this reference to "many experts" makes it appear that the writer was somehow acknowledging the work of scholars 'too numerous to mention'. The plagiarized passage makes several subtle changes in language (e.g. it changes "visibility and omnipresence" to "it's visible and omnipresent"). The writer has made the language seem more informal in keeping with his own writing style. He ignores any embellishments or additional information given in the source-passage. He contents himself with borrowing the sentence about how only masks and veils can hide

[5] This section is borrowed directly from the Northwestern University website on plagiarism. "The section was written by Jean Smith of the CAS Writing Program, with help from Bob Wiebe of the History Department. Contributers include Katrina Cucueco (Speech '96), Ryan Garino (CAS '98), Scott Goldstein (Tech '96), and Jean Smith and Ellen Wright of the Writing Program. The examples of plagiarism and comments are based upon Sources: Their Use and Acknowledgement (published by Dartmouth College)." (http://www.northwestern.edu/uacc/plagiar.html)

the face, without using hte follow-up elaboration about there not being a "facial equivalent to putting one's hands in one's pockets." He also reduces the source's list of the face's diverse activities at the end of the paragraph. Had the writer credited the authors of the emotions book in this text or in a footnote, and enclosed the borrowed material in quotation marks, this would have been a legitimate use of a source.

## B. THE MOSAIC

**Source Material**

From: *Language in Sociocultural Change* by Joshua Fishman (Stanford University Press, 1972), p.67. (Linguistics source)

In a relatively open and fluid society there will be a few characteristics of lower-class speech that are not also present (albeit to a lesser extent) in the speech of the working and lower middle classes. Whether we look to phonological features such as those examined by Labov or to morphological units such as those reported by Fischer (1958), (Fischer studied the variation between –in' and –ing for the present participle ending, i.e. runnin' vs. running and found that the former realization was more common when children were talking to each other than when they were talking to him, more common among boys than girls, and more common among "typical boys" than among "model boys"), we find not a clear-cut cleavage between the social classes but a difference in rate of realization of particular variants of particular variables for particular contexts. Even the widely publicised distinction between the "restricted code" of lower-class speakers and the "elaborate code" of middle-class speakers (Bernstein 1964, 1966) is of this type, since Bernstein includes the cocktail party and the religious service among the social situations in which restricted codes are realised. Thus, even in the somewhat more stratified British setting the middle class is found to share some of the features of what is considered to be "typically" lower-class speech. Obviously then, "typicality", if it has any meaning at all in relatively open societies, must refer largely to repertoire range rather than to unique features of the repertoire.

**Misuse of source** (italicized passages indicate direct plagiarism)

*In a relatively fluid society* many characteristics of lower-class speech will also be found among the working and lower middle classes. Labov's and Fischer's studies show that *there is not a clear-cut cleavage between social classes but only a difference* in the frequency of certain speech modes. All classes share certain speech patterns. The difference among classes would only be apparent by the frequency with which speech expressions or patterns appeared. By this standard, then, Bernstein's distinction between the "restricted code" of the lower-class speakers and the "elaborated code" of middle-class speakers is useful only up to a point, since Bernstein mentions cocktail parties and religious services as examples of "restricted speech" groupings. "Typicality" *refers more to speech "range" than to particular speech features.*

**Comment**

While this passage contains relatively few direct borrowings from the original source, all its ideas and opinions are lifted from it. The writer hides her dependency on the source by translating its academic terms into more credible language for a novice in sociology. For example, the plagiarist steers clear of sophisticated terms like "phonological features",

"morphological units", and "repertoire range". However, her substitutions are in themselves clues to her plagiarism, since they over-generalise the source's meaning. The writer seems to acknowledge secondary sources when she refers to Labov's and Fischer's studies, but she obviously has no first-hand knowledge of their research. If she had consulted these studies, she should have footnoted them, rather than pretending that both she and her audience would be completely familiar with them. she intertwines her own opinions with the source and forms a confused, plagiarized mass. The writer should have acknowledged her indebtedness to her source by eliminating borrowed phrases and crediting her paragraph as a paraphrase of the original material.

## C. PARAPHRASE

**Source Material**

From: Cliff's Notes on The Sun Also Rises by Ernest Hemingway

THE DISCIPLINE OF THE CODE HERO

If the old traditional values are no good anymore, if they will not serve man, what values then will serve man? Hemingway rejects things of abstract qualities courage, loyalty, honesty, bravery. These are all just words. What Hemingway would prefer to have are concreate things. For Hemingway a man can be courageous in battle on Tuesday morning at 10 o'clock. But this does not mean that he will be courageous on Wednesday morning at 9 o'clock. A single act of courage does not mean that a man is by nature courageous. Or a man who has been courageous in war might not be courageous in some civil affair or in some other human endeavour. What Hemingway is searching for are absolute values, which will be the same, which will be constant at every moment of every day and every day of every week.

Ultimately therefore, for Hemingway the only value that will serve man is an innate faculty of self-discipline. This is a value that grows out of man's essential being, in his inner nature. If a man has discipline to face one thing on one day, he will still possess that same degree of discipline on another day and in another situation. Thus Francis Macomber in the short story "The Short, Happy Life of Francis Macomber" has faced a charging animal, and once he has had the resolution to stand and confront this charging beast, he has developed within himself a discipline that will serve him in all situations. This control can function in almost any way in a Hemingway work.

**Misuse of source**

Hemingway tries to discover the values in life that will best serve man. Since Hemingway has rejected traditional values, he himself establishes a kind of "code" for his heroes. This code is better seen than spoken of. The Hemingway hero doesn't speak of abstract qualities like courage and honesty. He lives them. But this living of values entails continual performance the Hemingway hero is always having his values put to the test. How can the hero be up to this continual test? Hemingway stressed the faculty of self-discipline as the backbone of all other virtues. Self-discipline places man's good qualities on a continuum. The dramatic change in Francis Macomber in "The Short, Happy Life of Francis Macomber" stems more from his new-found self-control than from any accidental combination of traits.

**Comment**

This illustrates plagiarism since the writer used the notion of the "Hemingway code hero" presented in Cliff's Notes as the sole basis for his own essay. He has absorbed his sources concepts, rephrased them, and perhaps, made them simpler. But there is a one-to-one relationship between the development of ideas in the Cliff's Notes and the plagiarists' rendition. The first two sentences of the plagiarist's are directly borrowed from his source; the remaining sentences are more artfully disguised. The worst feature of this idea-copying is that it seems to be the end-product of a close reading of Hemingway's "Short, Happy Life," the writer makes it appear that his comments are based on this short story. The writing here would be acceptable if he had written the same paraphrase with the proper acknowledgement of his source.

## D. INSUFFICIENT ACKNOWLEDGEMENT

**Source Material**

From: Peter Laven, *Renaissance Italy*: 1464-1534 (New York: Capricorn, 1964), pp.130f.

The tenacious particularism of the Italian state gave rise to a wide variety of constitutional solutions and class structures throughout Italy. Even conquered territories and those swallowed up by bigger neighbouring powers often managed to retain much of their internal organisation as it had been. If power changed hands, the instruments and forms of power usually remained the same. Since the economic needs of such territories did not suddenly alter with a change of government or master, those classes which had been important before the change tended to continue to be important afterwards as well. Only when the nature of the change was economic and social might there have been a reversal in the relationships of classes; but even in this there was no sudden revolution in the structure of classes.

**Misuse of source**

In his comprehensive study, *Renaissance Italy*, Peter Lavern discusses the peculiar organization of Renaissance city-states: The tenacious particularism of the Italian states gave rise to a wide variety of constitutional colutions and class structures throughout Italy. Even conquered territories and those swallowed up by bigger neighbouring powers often managed to retain much of their internal organization as it had been.[1]

This means that if power changed hands, the instruments and forms of power usually remained the same. Since the economic needs of such territories did not suddenly alter with a change of government of master, those classes which had been important before the change tended to continue to be important afterwards as well. Only when the nature of the change was economic and social might there have been a reversal in the relationships of classes; but even in this there was no sudden revolution in the structure of classes.

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[1] Peter Laven, *Renaissance Italy*, p.130-31.

**Comment**

This half-crediting of a source is a common form of plagiarism. It stems either from a desire to credit one's source and copy it too, or from ignorance as to where to footnote. The general rule is to footnote after rather than before your resource material. In this case, the plagiarist credits historian Peter Laven with two sentences and then continues using the author without giving acknowledgement. The writer disguises the direct plagiarism as a paraphrase by using the falsely-explanatory phrase "This means that ..." in the third sentence. This example of plagiarism is especially reprehensible because the writer seemingly acknowledges her source--but not enough.

## 3. How to do it right: examples of the good use of others' work[6]

In all academic work, and especially when writing papers, we are building upon the insights and words of others. A conscientious writer always distinguishes clearly between what has been learned from others and what he or she is personally contributing to the reader's understanding. To avoid plagiarism, it is important to understand how to attribute words and ideas you use to their proper source.

### A. QUOTED MATERIAL AND UNUSUAL OPINION OR KNOWLEDGE

**Source Material**

From: Jackie Vivelo, "The Mystery of Nancy Drew" MS., November, 1992, pp. 76-77

The teenage detective who was once a symbol of spunky female independence has slowly been replaced by an image of prolonged childhood, currently evolving toward a Barbie doll detective. Every few pages bring reminders of Nancy's looks, her clothing, her effect on other people. ... the first entry in this series carries a description of Nancy. "the tight jeans looked great on her long, slim legs and the green sweater complemented her strawberry-blonde hair."

**Use and Adaptation of the Material**

Nancy Drew has become a "Barbie doll" version of her old self. She has become superficial and overly concerned with her looks. She is described in the new series as wearing "tight jeans [that] looked great on her long, slim legs."[1] She has traded her wits and independent spirit for a great body and killer looks[2].

[1] Jackie Vivelo, "The Mystery of Nancy Drew" MS., November, 1992, p.77

[2] Vivelo, pp. 76-77

**Explanation**

The writer has paraphrased most of the material, and she has borrowed a few of the author's words. She has also discovered that the paraphrased ideas are unusual (not found in other sources). Therefore, the writer has placed quotation marks around the author's

[6] This section is borrowed directly from the Northwestern University website on plagiarism (http://www.northwestern.edu/uacc/plagiar.html).

words and has credited the author twice – once directly after the quoted material and once at the conclusion of the author's ideas.

## B. INTERPRETATION

**Source material**

From: Stanford Lehmberg, *The Peoples of the British Isles: A New History*, vol. I, (Wadsworth Publishing Company, 1992), p. 9.

One recent theory, advanced by the physicist Gerald Hawkins, holds that Stonehenge was actually an observatory, used to predict the movement of stars as well as eclipses of the sun and moon. Such a structure would have been of great value to an agricultural people, since it would enable them to mark the changing seasons accurately, and it would have conferred seemingly supernatural powers on the religious leaders who knew how to interpret its alignments.

**Use and adaptation of the material**

If Stonehenge was an astronomical observatory which could predict the coming of spring, summer, and fall, this knowledge would have given tremendous power to the priestly leaders of an agricultural community.[1]

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[1] Stanford Lehmberg, The Peoples of the British Isles: A New History, vol. I, (Wadsworth Publishing Company, 1992), p.9

**Explanation**

The writer has appropriately cited this material since the writer is in debt to someone else for the analysis, even though the writer has not used any direct quotations.

## C. PARAPHRASED MATERIAL

**Source material**

From: *How to Grow Annuals*, ed. Sunset Books and Sunset Magazine (Menlo Park, CA: Lane Books, 1974), p. 24.

As a recent authority has pointed out, for a dependable long-blooming swatch of soft blue in your garden, ageratum is a fine choice. From early summer until frost, ageratum is continuously covered with clustered heads of tine, silky, fringed flowers in dusty shades of lavender-blue, lavender-pink, or white. The popular dwarf varieties grow in mounds six to twelve inches high and twelve inches across; they make fine container plants. Larger types grow up to three feet tall. Ageratum makes an excellent edging.

**Use and adaptation of the material**

You can depend on ageratum if you want some soft blue in your garden. It blooms through the summer and the flowers, soft, small, and fringed, come in various shades of lavender. The small varieties which grow in mounds are very popular, especially when planted in containers. There are also larger varieties. Ageratum is good as a border plant.[1]

[1] How to Grow Annuals, ed. Sunset Books and Sunset Magazine (Menlo Park, CA: Lane Books, 1974), p. 24.

**Explanation**

The writer has done a good job of paraphrasing what could be considered common knowledge (available in a number of sources), but because the structure and progression of detail is someone else's, the writer has acknowledged the source. This the writer can do at the end of the paragraph since he or she has not used the author's words.

## D. USING OTHER AUTHORS' EXAMPLES

**Source material**

From: Sharon Begley, "The Puzzle of Genius," *Newsweek*, June 28, 1993, p. 50.

The creative geniuses of art and science work obsessively. ... Bach wrote a cantata every week, even when he was sick or exhausted.

From: "What Produces Scientific Genius?" *USA Today*, June 1989, p. 11.

Albert Einstein published nearly 250 papers in his life, but a sizeable percentage of them were ignored or even proven wrong.

**Use and adaptation of the material**

If there is a single unifying characteristic about geniuses, it is that they produce. Bach wrote a cantata every week. Einstein drafted over 250 papers.[1]

[1] Sharon Begley, "The Puzzle of Genius," Newsweek, June 28, 1993, p. 50; "What Produces Scientific Genius?" USA Today, June 1989, p. 11.

**Explanation**

Instead of finding an original example, the writer has used an author's example to back up what the writer had to say; therefore the writer has cited it.

## E. USING OTHER AUTHORS' CHARTS AND GRAPHS

(Chart)

Source: Accretion Chart for Illinois tax on OID bond, prepared by John Lindsay, Principal Financial Securities, Inc., 6/12/95.

**Use and adaptation of the material**

As the following chart indicates, investment in an OID (Original Issue Discount) bond is taxable by the State of Illinois on the accretion and interest.[1]

[1] Accretion Chart for Illinois tax on OID bond, prepared by John Lindsay, Principal Financial Securities, Inc., 6/12/95.

**Explanation**

Instead of creating an original chart or graph, the writer has used one from an outside source to support what the writer has to say; therefore the chart or graph has been cited. If the writer had created an original chart, some of the facts might need citations.

## F. USING CLASS NOTES

**Source Material**

From: Lecture notes, Lecture by Professor Mary McKay--March 10, 1995

Born in USA--Springsteen's 7th, most popular album
a. Recorded with songs on Nebraska album--therefore also about hardship
1. Nebraska about losers and killers
b. About America today--Vietnam, nostalgia, unemployment, deterioration of family
c. Opening song--many people missed the Vietnam message about how badly vets were treated. class notes--Messages in Modern Music A05

**Use and adaptation of material**

As Professor McKay has pointed out, many of the songs in Born in the USA (Springsteen's seventh and most popular album), including the title song, were recorded with the songs on Nebraska. Consequently, Born in the USA is also about people who come to realize that life turns out harder and more hurtful than what they might have expected. However, while Nebraska deals with losers and killers, Born in the USA deals more locally with the crumbling of American society--its treatment of returning Vietnam veterans, its need to dwell on past glories, its unemployment and treatment of the unemployed, and the loss of family roots. This is apparent from the opening song of the album "Born in the USA" in which Springsteen sings from the perspective of a Vietnam Veteran.[1]

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[1] Mary McKay, "Messages in Modern Music" A01 (Northwestern University) March 10, 1995.

**Explanation**

The writer has acknowledged that these ideas (which are not commonly held or the writer has not investigated to find out if they are commonly held) come from a lecture.

## G. DEBATABLE FACTS

**Source material**

From: Gordon Craig, *Europe Since 1815* (Dryden Press, 1974), p. 370.

In the campaigns of 1915 Russian casualties have been conservatively estimated at more than 2 million.

From: L. S. Stavrianos, *The World Since 1500* (Prentice Hall, 1966), p. 438.

By the end of the summer [of 1915] in addition to military casualties totalling 2,500,000 men, Russia had lost 15 percent of her territories...

**Response to the material**

Estimates of the number of deaths in Russia during 1915 range from over two million[1] to two and a half million.[2]

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[1] Gordon Craig, Europe Since 1815 (Dryden Press, 1974), p. 370.
[2] L. S. Stavrianos, The World Since 1500 (Prentice Hall, 1966), p. 438.

**Explanation**

The writer found different facts in different sources; therefore the "facts" needed to be documented.

## H. UNUSUAL FACTS

**Source material**

From: "Characteristics of Northwestern Students: Data from the Cooperative Institutional Research Project," Northwestern University, 1994 p. 2.

There also has been a dramatic shift in the percentage of our students whose mothers work outside the home. Approximately 80% of our entering students in 1994 have mothers who are employed outside the home. In 1967, more than half of our students' mothers were full-time homemakers.

**Use and Adaptation of the Material**

At Northwestern University, the rise in the number of mothers working outside the home has been dramatic--moving from less than half in 1967 to about 80 percent among the freshman class of 1994.[1]

---

[1] Characteristics of Northwestern Students: Data from the Cooperative Institutional Research Project," Northwestern University, 1994 p. 2.

**Explanation**

The writer fond this fact in only one source and wants his reader to know where to find it.

## 4. Guidelines to avoid and prevent plagiarism[7]

- Take carefully documented notes. Identify your sources by name of author, title of work, place and name of publication, date and page numbers.
- Enclose all borrowed words in quotation marks, and set off longer borrowed passages in an indented block.

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[7] US Naval Academy Plagiarism Policy

- Avoid mere paraphrasing, substituting your own words, or synonyms for the original work without giving proper credit to your source.
- Do not plagiarize your own work by copying from it or submitting it more than once for credit unless specifically authorised by your professor.
- Document all figures, charts, statistics, graphs, tables, opinions and conclusions taken or adapted from any source, including electronic media such as CD-ROMs, diskettes or tapes, online resources like the World Wide Web, or computer services such as Nexis and Dialog. *Resist the temptation to cut and paste without attribution.*
- Do not use translation software to produce foreign-language text for submission as your own work. Not only does this constitute misrepresenting another entity's work as your own, it also will be recognizable to your supervisor as a machine-produced text.
- Do not document facts of common knowledge such as familiar proverbs or well-known quotations ("We shall overcome"), but you must indicate the source of any appropriated material that readers otherwise could mistake for your own. **If in doubt, ask. If still uncertain, err on the side of caution** (*borrowed from USNA statement*).
- Within a text, particularly in case of repeated reference to the same source, identify its origin briefly by name or title and page number, enclosed in parentheses, and provide complete documentation of all your sources in an alphabetized list of "Works Cited" at the end of your paper.

## APPENDIX B: Guidelines for writing a Research Proposal

Usually it takes a few weeks to write a project proposal of about 5 page (max 10, including possible appendices). This proposal needs to include at least the following:

### *(1) Title of project*

The title should be concise. It is usually a summary of the problem statement and includes main concepts to be studied.

### *(2) Introduction*

The introduction includes the background of the problem, a 'problem statement', and provides an overview of the scientific literature, summarising what is known about the subject. It gives a brief reflection on the wider context of the research topic, the scientific and social relevance (why is it important) and how the research idea developed. It shows what is not yet known and still needs to be studied. The introduction is written in such a way that the study's purpose follows logically from the problem statement. It may serve as the basis for chapter 1 of the thesis report.

### *(3) Purpose of Study*

From the introduction and background, the purpose of the study can be formulated. This is the scientific formulation of what will be achieved in the research. It is followed by a number of research questions that will be answered in order to meet the purpose of the analysis. This formulation of the purpose and research questions will also be used in chapter 1 of the thesis. The analysis of the study should focus on answering the research questions.

### *(4) Method*

A description is given of how the research questions will be answered. The research method(s), tools to be used and how the data will be collected, handled and analysed should be described. It should also be explained and justified why the methods used were the most appropriate for the study. In education research, the research method is often a combination of for example, literature study, interviews, questionnaires, fieldwork/ observations etc. This description of the method may serve as the basis for Chapter 2 of the Thesis.

### *(5) Planning*

This section should give a description of the planning. It shows for each research question when it is to be answered and when draft chapters of the report are due. It also includes time for comments and re-writing, and indicates when the final presentation is held. The planning may also include a strategic research plan, discussing for example, where the research will be carried out (e.g. fieldwork-site), which organisations will collaborate (if applicable), who will do what (in case of a group-project) etc.

### *(6) Supervision*

The names of the WUR supervisor(s) are mentioned here as well as possible other people involved (e.g. experts, contact people in the fieldwork site).

### *(7) Draft table of contents*

The proposal ends with a draft table of contents of the thesis. The thesis chapters are referred to in the planning.

### *(8) References and contacts*

Finally, a list of background literature and contacts (organisations/persons) used to develop the proposal is given.

## APPENDIX C: Guidelines for writing a Thesis Report

Writing a thesis report can take some time, thus it might be helpful to start thinking how you might want to structure your thesis beforehand. You are free to choose the format of the report, but it should in any case, be based on the following structure, and should be as concise as possible. The main text should preferably be between 50-60 (max) pages, if necessary, followed by a flexible number of pages for appendices. This report needs to include at least the following:

### *(1) Cover Page & Title Page*

Every report should have a cover page. The cover page should include the title of your thesis, your name and registration number, the supervisor(s) involved, the date of submission, as well as the chair group in which the thesis is done at.

The title page follows the cover page and this is the first true page of your report. It should include (i) a short, but informative and attractive title that fits the topic of the performed research, or reflects the most important findings; (ii) student information such as name, registration number, educational programme as well as specialisation; (iii) information about supervisor(s), the chair group, course code and the date of submission; and (iv) disclaimer information.

Please see *APPENDIX F: Sample of Cover Page & Title Page* for a suggested layout for the cover page, title page and disclaimer information.

### *(2) Preface*

This section provides the institutional context of the study and may describe why you did this research (e.g. how you became interested in the subject). It may include some personal notes on your project, and should include acknowledgements of people who supported you.

### *(3) Table of Contents (Suggested # of pages: preferably 1, max 2 pages)*

The table of contents should be clear and preferably only include headings of maximum 3 digits. It can be generated automatically using MS Word styles. Lists of Figures, Tables, and Appendices can also be added.

### *(4) Summary (Suggested # of pages: 1-2 pages)*

This section summarises your research. It includes some background information, the aim of the study, and main research questions, a short description of the methods used, the most important results and findings of the project and the major discussion points, and conclusions.

### *(5) List of abbreviations*

This list should include all the abbreviations used in the entire thesis report. This allows the reader to refer to this list, and at a glance, see all the different abbreviations used and what it stands for while reading the report.

### *(6) Introduction (Suggested # of pages: 5 pages)*

The introduction (or Chapter 1 of your report) can be largely based on the research proposal. It should include some background information (scientific and societal context) and an overview of the most important scientific literature. Main terms and concepts used should be defined here, and the current state of knowledge on the topic of your thesis should also be described here. This will show the reader what is unknown or poorly known at present. The general problem definition and correspondingly the objective of the study is then introduced and specified here as well. The introduction ends with a short outline of the rest of the thesis report. This outline specifies how the different chapters are structured and linked.

### *(7) Theoretical Background (Suggested # of pages: 10 pages)*

In this section, the theoretical background of the topic and its underlying concept(s) is explicated in greater detail. This will be the backdrop against which the student presents his/her work. This should be a critical synthesis of the state of the knowledge. Some areas that are especially important include the aspects that need further investigation e.g. what has not yet been investigated, and/or what has been done, but for which there is a conflict in the literature. This literature review/theoretical background section serves to justify the hypothesis/objective of the research. The research questions are also introduced in this section, following the write-up and justification of the underlying concepts based on a literature review.

### *(8) Method(s) (Suggested # of pages: 5-10 pages)*

This section describes how the research questions will be addressed and what methods will be used for both data collection and data analysis. The selection of specific methods must be clearly motivated and examples of alternative methods/approaches should be discussed. It may include a description of the research area, or a description of the models used, or the scenarios that were formulated. All (main) statements must be clearly supported by literature references.

### *(9) Results (Suggested # of pages: 5-15 pages)*

The results are usually presented in several chapters. You should present your results in a clear, coherent and concise way, without discussing them. It does not yet draw conclusions. The results are presented as much as possible in tables and figures. It should be very clear to the reader what results are part of the study, and what parts are from other, existing studies or literature. The results are presented in such a way that they logically refer to the research questions formulated in Chapter 1.

### *(10) Discussion (Suggested # of pages: 5-10 pages)*

After having described the results, the discussion of the results follows. This means that you critically address them. First of all, you need to tell the reader about any weaknesses in your approach/methods and the consequent uncertainties in the results. Secondly, you need to convince the reader that, despite the weaknesses, your approach was appropriate and your results reliable (under the given restrictions). Finally, you need to compare your results to those of other research papers and reports and discuss the differences and similarities. What do they imply for your conclusions?

A smart way to draft your discussion is to first summarise the answers to your research questions and draft your final conclusions. Then criticise your own conclusions (e.g. too little data; not the most appropriate methods; major uncertainties remain; of the conclusions differ from those in other studies) and discuss how these criticisms influence your findings or why they (i.e. the criticisms) are less relevant. You can also indicate in the discussion section how additional research could improve on your results (e.g. "Although my limited dataset specified a clear trend, collecting more data would enhance precision"). This way, your discussion chapter comprehensively links the result chapters and the conclusion chapter, and convinces your audience of the robustness and trustworthiness of your results.

### *(11) Conclusions (Suggested # of pages: 5 pages)*

This chapter draws conclusions from the results and discussions. Brief answers are given to each research question. The final paragraph of the conclusions provides the synthesised conclusion(s) that address the aim of the study.

### *(12) Recommendations (Suggested # of pages: 2 pages)*

If it is part of the research objectives to provide recommendations, then this section should be included. Recommendations may be formulated for (a) further research, (b) policy makers and/or (c) management implications. It should also be clearly state for whom the respective recommendations are for.

### *(13) References*

Cite only references that are relevant and necessary. Make sure all references listed at the end of the thesis are actually cited in the thesis, and check for accuracy of dates, authors and sources. Avoid citing references that no one else will be able to find (from unpublished sources, for example). The purpose of a good reference list is to allow other scientists to check the reliability of your sources. This means that only retrievable sources should be cited (i.e. no websites).

- The reference list should be consistent and complete and include the main scientific papers, books, book chapters and reports that have been published on the topic of your thesis. Only include references in your list that you used in your text;
- Use a consistent style throughout the report (APA, MLA style etc.) and preferably use EndNote/Mendeley (or similar reference management software) to manage and generate the reference list;
- Do not use footnotes for your references;
- Please do not use general websites in your reference list because information of websites cannot be checked. Usually there is a report or paper behind a website that you should cite. In case you cannot find the original source, you could add the website and the date accessed to the main text of your thesis. Please add a footnote and do not add the website to your reference list. The only exceptions are reliable websites that provide official data (e.g. Agrostat and CBS).

### *(14) Figures and tables*

Include only figures and tables that are necessary. **Do not** present the same data in both a table and a figure.

- Make sure figures and tables are clear, legible and relevant. Each should be self-explanatory from its caption and legend;
- Avoid including extraneous details (lines or data). One well-designed figure or table may save a thousand words, so try to let it speak for itself and avoid unnecessary words to describe what it shows (in the caption as well as in the text);
- Clearly refer to the source: in case you copied the entire table or figure from another publication, you should cite the original course and require permission to copy it. Most texts, figures and tables from scientific papers and books fall under copyright. Often you will adapt a figure or table from another source, or several sources. In that case, you write "adapted from..." or "based on...".

### *(15) Appendices*

Provide additional material and tables that adds to the findings, that provides source codes, etc. Major results should never occur in an appendix.

## APPENDIX D: Guidelines for preparing an Oral Presentation

The oral presentation or "colloquium" (not necessarily limited to a PowerPoint presentation) should be 20 minutes maximum, followed by 10 minutes discussion. It should at least include the following subjects:

- The title of your thesis: including your name and any other information you wish to add as well;
- Outline of the presentation: telling the audience what they can expect in the coming minutes;
- Introduction: giving some background on the thesis subject;
- Aim of the study/research questions: presenting the questions that will be answered later;
- Method: giving details on the method you used;
- Results: presenting your results in a clear overview, highlighting most interesting outcomes;
- Discussion: presenting the main discussion points (e.g. problems encountered or uncertainty in results); and
- Conclusions (and recommendations): addressing your research questions and drawing conclusions and, optionally, the main recommendations.

It is important to prepare your presentation carefully. Some general recommendations with respect to slides[8] include:

- Use a large font size;
- Do not have too many lines of text in one slide;
- Make sure your slides only contain information that you really talk about;
- Graphs usually are easier to read by the audience than tables;

It is important to practice your presentation several times before you actually give it. When presenting, please take into account the following:

- Do not stand with your back turned to the audience (look at the audience);
- Talk slowly, give the audience time to think;
- When presenting graphs and tables, take your time to tell the audience what it presents before you start to talk about their content (e.g. when presenting graphs, first explain the x and y axis, before you start to talk about the results);
- When presenting tables, be aware that the audience will not have time and energy to remember all the numbers that are in there. Decide in advance which numbers you think are important in the table, and focus your discussion on them;

Use a pointer if you present tables and graphs, to make sure that the audience knows what you are talking about, or highlight (e.g. circle) the elements on which you want to focus in the PowerPoint.

[8] There is a standard WUR template for presentations which you can use, but you are free to make your own design.

## APPENDIX E: Rubric for Assessment of MSc Thesis

Author: Arnold F. Moene, Meteorology and Air Quality Group, Wageningen University Version: 1.1 (December 15, 2010)
Adjusted for Education and Learning Sciences group (5 March 2019)


| **Item** | **Mark for item** | | | | | |
|---|---|---|---|---|---|---|
| | **2-3** | **4-5** | **6** | **7** | **8** | **9-10** |
| 1. Research competence (30-60%) * | | | | | | |
| **1.1. Commitment and perseverance** | Student is not motivated. Student escapes work and gives up regularly | Student has little motivation. Tends to be distracted easily. Has given up once or twice | Student is motivated at times, but often, sees the work as a compulsory task. Is distracted from thesis work now and then. | The student is motivated. Overcomes an occasional setback with help of the supervisor. | The student is motivated and/or overcomes an occasional setback on his own and considers the work as his "own" project. | The student is very motivated, goes at length to get the most out of the project. Takes complete control of his own project. Considers setbacks as an extra motivation. |
| **1.2. Initiative and creativity** | Student shows no initiative or new ideas at all. | Student picks up some initiatives and/or new ideas suggested by others (e.g. supervisor), but the selection is not motivated. | Student shows some initiative and/or together with the supervisor develops one or two new ideas on minor parts of the research. | Student initiates discussions on new ideas with supervisor and develops one or two own ideas on minor parts of the research. | Student has his own creative ideas on hypothesis formulation, design or data processing. | Innovative research methods and/or data-analysis methods developed. The scientific problem has been formulated by the student, with limited or no support from supervisor. |
| **1.3. Independence** | The student can only perform the project properly after repeated detailed instructions and with direct help from the supervisor. | The student needs frequent instructions and well-defined tasks from the supervisor and the supervisor needs careful checks to see if all tasks have been performed. | The supervisor is the main responsible for setting out the tasks, but the student is able to perform them mostly independently | Student selects and plans the tasks together with the supervisor and performs these tasks on his own | Student plans and performs tasks mostly independently, asks for help from the supervisor when needed. | Student plans and performs tasks independently and organizes his sources of help independently. |
| | No critical self-reflection at all. | No critical self-reflection at all. | Student is able to reflect on his functioning with the help of the supervisor only. | The student occasionally shows critical self-reflection. | Student actively performs critical self-reflection on some aspects of his functioning | Student actively performs critical self-reflection on various aspects of his own functioning and performance. |
| **1.4. Efficiency in working with data** Note: depending on the characteristics of the thesis work, not all | **Experimental work** Student is not able to setup and/or execute an experiment. | Student is able to execute detailed instructions to some extent, but errors are made often, invalidating (part of) the experiment. | Student is able to execute an experiment that has been designed by someone else (without critical assessment of sources of error and uncertainty). | Student is able to execute an experiment that has been designed by someone else. Takes sources of error and uncertainty into account in a qualitative sense. | Student is able to judge the setup of an existing experiment and to include modifications if needed. Takes into account sources of error and uncertainty quantitatively. | Student is able to setup or modify an experiment exactly tailored to answering the research questions. Quantitative consideration of sources of error and uncertainty. Execution of the experiment is flawless. |

| Item | Mark for item | | | | | |
|---|---|---|---|---|---|---|
| | **2-3** | **4-5** | **6** | **7** | **8** | **9-10** |
| three aspects (experimental work, data analysis and model development) may be relevant and some may be omitted | **Data analysis**<br>Student is lost when using data. Is not able to use a spreadsheet program or any other appropriate data-processing program. | Student is able to organize the data, but is not able to perform checks and/or simple analyses | Student is able to organize data and perform some simple checks; but the way the data are used does not clearly contribute to answering of the research questions and/or he is unable to analyze the data independently. | Student is able to organize the data, perform some basic checks and perform basic analyses that contribute to the research question | Student is able to organize the data, perform commonly used checks and perform some advanced analyses on the data | Student is able to organize the data, perform thorough checks and perform advanced and original analyses on the data. |
| **1.5. Handling supervisor's comments and development of research skills** | Student does not pick up suggestions and ideas of the supervisor | The supervisor needs to act as an instructor and/or supervisor needs to suggest solutions for problems | Student incorporates some of the comments of the supervisor, but ignores others without arguments | Student incorporates most or all of the supervisor's comments. | Supervisor's comments are weighed by the student and asked for when needed. | Supervisor's comments are critically weighed by the student and asked for when needed, also from other staff members or students. |
| | Knowledge and insight of the student (in relation to the prerequisites) is insufficient and the student is not able to take appropriate action to remedy this | There is some progress in the research skills of the student, but suggestions of the supervisor are also ignored occasionally. | The student is able to adopt some skills as they are presented during supervision | The student is able to adopt skills as they are presented during supervision and develops some skills independently as well | The student is able to adopt new skills mostly independently, and asks for assistance from the supervisor if needed. | The student has knowledge and insight on a scientific level, i.e. he explores solutions on his own, increases skills and knowledge where necessary. |
| **1.6. Keeping to the time schedule** | Final version of thesis or colloquium more than 50% of the nominal period overdue without a valid reason (force majeure) | Final version of thesis or colloquium at most 50% of the nominal period overdue (without a valid reason). | Final version of thesis or colloquium at most 25% of nominal period overdue (without valid reason) | Final version of thesis or colloquium at most 10% of nominal period overdue (without valid reasons) | Final version of thesis or colloquium at most 5% of nominal period overdue (without good reasons) | Final version of thesis and colloquium finished within planned period (or overdue but with good reason). |
| | No time schedule made. | No realistic time schedule. | Mostly realistic time schedule, but no timely adjustment of time schedule. | Realistic time schedule, with some adjustments (but not enough or not all in time) in times only. | Realistic time schedule, with timely adjustments. of times only. | Realistic time schedule, with timely adjustments of both time and tasks. |
| 2. Thesis report (30-60%) * | | | | | | |
| **2.1. Relevance research, clearness goals,** | No link is made to existing research on the topic. No research context is described. | The context of the topic at hand is described in broad terms but there is no link between what is known and what will be researched. | The link between the thesis research and existing research does not go beyond the information provided by the supervisor. | Context of the research is defined well, with input from the student. There is a link between the context and research questions. | Context of the research is defined sharply and to-the-point. Research questions emerge directly from the described context. | Thesis research is positioned sharply in the relevant scientific field. Novelty and innovation of the research are indicated. |

| Item | Mark for item | | | | | |
|---|---|---|---|---|---|---|
| | 2-3 | 4-5 | 6 | 7 | 8 | 9-10 |
| **delineation research** | There is no researchable research question and the delineation of the research is absent | Most research questions are unclear, or not researchable and the delineation of the research is weak | At least either the research questions or the delineation of the research are clear | The research questions and the delineation are mostly clear but could have been defined sharper at some points | The research questions are clear and researchable and the delineation is clear. | The research questions are clear and formulated to-the-point and limits of the research are well-defined. |
| **2.2. Theoretical underpinning, use of literature** | No discussion of underlying theory. | There is some discussion of underlying theory, but the description shows serious errors. | The relevant theory is used, but the description has not been tailored to the research at hand or shows occasional errors. | The relevant theory is used, and the description has been tailored partially successful to the research at hand. Few errors occur. | The relevant theory is used, it is nicely synthesized, and it is successfully tailored to the research at hand. | Clear, complete and coherent overview of relevant theory on the level of an up-to-date review paper. Exactly tailored to the research at hand. |
| | No peer-reviewed/primary scientific papers in reference list except for those already suggested by the supervisor | Only a couple of peer-reviewed papers in reference list. | Some peer-reviewed papers in reference list but also a significant body of grey literature. | Relevant peer-reviewed papers in reference list but also some grey literature or text books. Some included references less relevant. | Mostly peer-reviewed papers or specialized monographs in reference list. An occasional reference may be less relevant. | Almost exclusively peer-reviewed papers in reference list or specialized monographs (not text books). All papers included are relevant. |
| **2.3. Use of methods and data** | No description of methods and/or data. | Research is not reproducible due to insufficient information on data (collection and/or treatment) and analysis methods | Some aspects of the research regarding data-collection, data-treatment, models or the analysis methods are described insufficiently so that that particular aspect of the research is not reproducible. | Description of the data (collection, treatment) or models as well as the analysis methods used is lacking in a number of places so that at most a more or less similar research could be performed. | Description of the data (collection, treatment) or models as well as the analysis methods used is mostly complete, but exact reproduction of the research is not possible due to lack of some details. | Description of the data (collection, treatment) or models as well as the analysis methods is complete and clear so that exact reproduction of the research is possible. |
| **2.4. Critical reflection on the research performed (discussion)** | No discussion and/or reflection on the research. Discussion only touches trivial or very general points of criticism. | Student identifies only some possible weaknesses and/or points at weaknesses which are in reality irrelevant or non-existent. | Student indicates most weaknesses in the research, but does not weigh their impacts on the main results relative to each other. | Student indicates most weaknesses in the research and is able to weigh their impact on the main results relative to each other. | Student indicates all weaknesses in the research and weighs them relative to each other. Furthermore, (better) alternatives for the methods used are indicated. | Student is not only able to identify all possible weaknesses in the research, but is also able to indicate which weaknesses affect the conclusions most. |
| | No confrontation with existing literature. | Confrontation with irrelevant existing literature. | Only trivial reflection vis-a-vis existing literature. | Student identifies only most obvious conflicts and correspondences with existing literature. Student tries to describe the added value of his study but does not relate this to existing research. | Student shows minor and major conflicts and correspondences with literature and can identify the added value of his research relative to existing literature. | Student critically confronts results to existing literature and in case of conflicts is able to weigh own results relative to existing literature. Student is able to identify the contribution of his work to the development of scientific concepts. |
| **2.5. Clarity of conclusions and** | No link between research questions, results and conclusions. | Conclusions are drawn, but in many cases these are only partial answers to the research | Conclusions are linked to the research questions, but not all questions are addressed. Some | Most conclusions well-linked to research questions and substantiated by results. | Clear link between research questions and conclusions. All conclusions substantiated by | Clear link between research questions and conclusions. Conclusions substantiated by |

| Item | Mark for item | | | | | |
|---|---|---|---|---|---|---|
| | **2-3** | **4-5** | **6** | **7** | **8** | **9-10** |
| **recommendations** | | question. Conclusions merely repeat results. | conclusions are not substantiated by results or merely repeat results. | Conclusions are mostly formulated clearly but with some vagueness in wording. | results. Conclusions are formulated exact. | results. Conclusions are formulated exact and concise. Conclusions are grouped/ ordered in a logical way. |
| | No recommendations given. | Recommendations are absent or trivial. | Some recommendations are given, but the link of those to the conclusions is not always clear. | Recommendations are well-linked to the conclusions. | Recommendations are to-the-point, well-linked to the conclusions and original. | Recommendations are to-the-point, well-linked to the conclusions, original and are extensive enough to serve as project description for a new thesis project. |
| **2.6. Writing skills** | Thesis is badly structured. In many cases information appears in wrong locations. Level of detail is inappropriate throughout. | Main structure incorrect in some places, and placement of material in different chapters illogical in many places. Level of detail varies widely (information missing, or irrelevant information given). | Main structure is correct, but lower level hierarchy of sections is not logical in places. Some sections have overlapping functions leading to ambiguity in placement of information. Level of detail varies widely (information missing, or irrelevant information given). | Main structure correct, but placement of material in different chapters illogical in places. Level of detail inappropriate in a number of places (irrelevant information given). | Most sections have a clear and unique function. Hierarchy of sections is mostly correct. Ordering of sections is mostly logical. All information occurs at the correct place, with few exceptions. In most places level of detail is appropriate. | Well-structured: each section has a clear and unique function. Hierarchy of sections is correct. Ordering of sections is logical. All information occurs at the correct place. Level of detail is appropriate throughout. |
| | Formulations in the text are often incorrect/inexact inhibiting a correct interpretation of the text. | Vagueness and/or inexactness in wording occur regularly and it affects the interpretation of the text. | The text is ambiguous in some places but this does not always inhibit a correct interpretation of the text. | Formulations in text are predominantly clear and exact. Thesis could have been written more concisely. | Formulations in text are clear and exact, as well as concise. | *Textual* quality of thesis (or manuscript in the form of a journal paper) is such that it could be acceptable for a peer-reviewed journal. |
| 3. Colloquium (5-10%) * | | | | | | |
| **3.1. Graphical presentation** | Presentation has no structure. | Presentation has unclear structure. | Presentation is structured, though the audience gets lost in some places. | Presentation has a clear structure with only few exceptions. | Presentation has a clear structure. Mostly a good separation between the main message and side-steps. | Presentation clearly structured, concise and to-the-point. Good separation between the main message and side-steps. |
| | Unclear lay-out. Unbalanced use of text, graphs, tables or graphics throughout. Too small font size, too many or too few slides. | Lay-out in many places insufficient: too much text and too few graphics (or graphs, tables) or vice versa. | Quality of the layout of the slides is mixed. Inappropriate use of text, tables, graphs and graphics in some places. | Lay-out is mostly clear, with unbalanced use of text, tables, graphs and graphics in few places only. | Lay-out is clear. Appropriate use of text, tables, graphs and graphics. | Lay-out is functional and clear. Clever use of graphs and graphics. |
| **3.2. Verbal presentation and** | Spoken in such a way that majority of audience could not follow the presentation. | Presentation is uninspired and/or monotonous and/or student reads from slides: | Quality of presentation is mixed: sometimes clear, sometimes hard to follow. | Mostly clearly spoken. Perhaps monotonous in some places. | Clearly spoken. | Relaxed and lively though concentrated presentation. Clearly spoken. |

| Item | Mark for item | | | | | |
|---|---|---|---|---|---|---|
| | **2-3** | **4-5** | **6** | **7** | **8** | **9-10** |
| **defence** | | attention of audience not captured | | | | |
| | Level of audience not taken into consideration at all. | Level of audience hardly taken into consideration. | Presentation not at appropriate level of audience. | Level of presentation mostly targeted at audience. | Level of presentation well-targeted at audience. Student is able to adjust to some extent to signals from audience that certain parts are not understood. | Clear take-home message. Level well-targeted at audience. Student is able to adjust to signals from audience that certain parts are not understood. |
| | Bad timing (way too short or too long). | Timing not well kept (at most 30% deviation from planned time). | Timing not well kept (at most 20% deviation from planned time). | Timing is OK (at most 10% deviation from planned time). | Timing is OK. | Presentation finished well in time. |
| | Student is not able to answer questions. | Student is able to answer only the simplest questions | Student answers at least half of the questions appropriately. | Student is able to answer nearly all questions in an appropriate way. | Student is able to answer all questions in an appropriate way, although not to-the-point in some cases. | Student is able to give appropriate, clear and to-the-point answers to all questions. |
| 4. Examination (5-10%) * | | | | | | |
| **4.1. Defence of the thesis** | Student is not able to defend/discuss his thesis. He does not master the contents | The student has difficulty to explain the subject matter of the thesis. | Student is able to defend his thesis. He mostly masters the contents of what he wrote, but for a limited number of items he is not able to explain what he did, or why. | Student is able to defend his thesis. He masters the contents of what he wrote, but not beyond that. Is not able to place thesis in scientific or practical context. | Student is able to defend his thesis, including indications where the work could have been done better. Student is able to place thesis in either scientific or practical context. | Student is able to freely discuss the contents of the thesis and to place the thesis in the context of current scientific literature and practical contexts. |
| **4.2. Knowledge of study domain** | Student does not master the most basic knowledge (even below the starting level for the thesis). | The student does not understand all of the subject matter discussed in the thesis. | The student understands the subject matter of the thesis on a textbook level. | The student understands the subject matter of the thesis including the literature used in the thesis. | Student is well on top of subjects discussed in thesis: not only does he understand but he is also aware of current discussions in the literature related to the thesis topic. | Student is well on top of subjects discussed in thesis: not only does he understand but he is also aware of discussions in the literature beyond the topic (but related to) of the thesis. |

## APPENDIX F: Sample of Cover Page & Title Page

(Cover Page)

# Title

*Picture or drawing to illustrate the thesis-topic (this is to be selected by student; this is not mandatory)*

Name of Student:
Registration number:

Date of submission

Supervised by: _____
Course Code: _____

WAGENINGEN
UNIVERSITY & RESEARCH

(Title Page)

# Title of the thesis

Name of student
*Minor thesis in Education and Learning Sciences (ELS)*

*Year and month*

*Supervisor(s) information:*
1) Name of supervisor (ELS)
+ Contact details
2) (if applicable) Name of supervisor (other WUR group/other Uni)
+ contact details

*This page has been intentionally left blank*

*(End of thesis manual)*