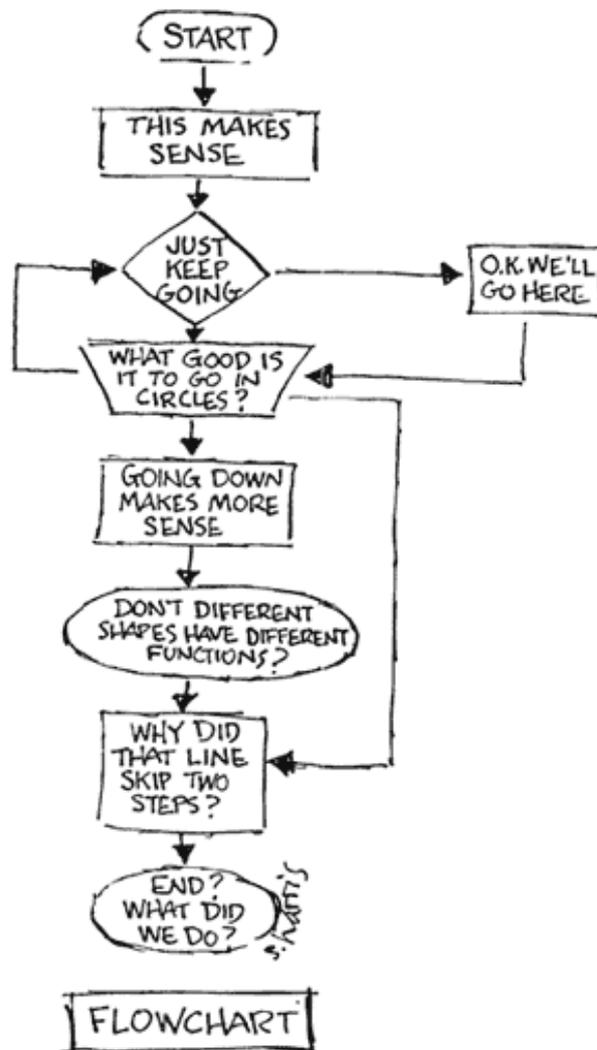


Guideline MSc-thesis research Land Use Planning (LUP)



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LUP-80424 MSc Thesis Land Use Planning
LUP-80427 MSc Thesis Land Use Planning
LUP-80430 MSc Thesis Land Use Planning
LUP-80433 MSc Thesis Land Use Planning
LUP-80436 MSc Thesis Land Use Planning
LUP-80439 MSc Thesis Land Use Planning

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1 INTRODUCTION

1.1 MSc-thesis: the crown of higher academic education

Writing a MSc-thesis is often considered the crown of higher academic education. And indeed, the importance of the thesis work is also reflected by the prominent role the thesis plays within the whole MSc-program. After completing introductory and specific courses in the educational program, the MSc-thesis offers the challenge to set up and carry out a scientific research project in - for the students - an almost fully self-responsible manner. This challenge includes:

- Assuring the adequate delineation and definition of the research topic.
- Building a sound theoretical framework for orientation of the research.
- Formulating research questions that are informed by the scientific problem at hand and the theoretical concepts presented
- Collecting and analysing primary (and secondary) data in a systematic and verifiable manner, for planning students often including case study research.
- Presenting the results comprehensibly.
- Drawing valid conclusions based on a critical discussion of the results.
- Showing the potential contribution of the research to the theoretical reconstruction of the topic.

A great deal of independence is expected from the student in preparing the MSc-thesis, starting with defining a topic. The role of the supervisor is to guide the learning process. The grading of the MSc thesis is a feedback on the student's scientific training progress and the quality of the thesis report.

This guideline provides an outline of the common steps and procedures for preparing a MSc-thesis Land Use Planning. It takes its departure from the general information and terms of reference for preparing a MSc-thesis at the Wageningen University (see the study handbook). Under certain conditions (e.g. participating in larger projects) it might be necessary to make specific arrangements that differ from the regular procedures. In these cases please contact your supervisor and the MSc-thesis contact person in an early stage to make the necessary arrangements.

The remainder of this introduction chapter deals with the basic scientific and administrative preconditions to start the preparation of the MSc-thesis. In chapter 2 the content and phases in the MSc-thesis process are described. Chapter 3 focuses on the administrative aspects for a successful start and completion of the MSc-thesis, including the thesis agreement, costs, grading and other administrative procedures.

1.2 What is a scientific masterpiece?

Epistemology of science

The question "what is science?" is a fundamental question with many incompatible answers evolving over time. A separate discipline has even been formed dealing only with this question, namely the philosophy of science (or, if you want: the study of *how* we know). Many excellent introductory texts are available to orient the student on this question, some of which were also discussed in the course "Research Methodology for Planning and Design". This thesis guideline will not provide overviews on different

worldviews, such as post-positivist, constructivist, transformative and pragmatic worldviews (Creswell, 2014). Nor does this guideline favour any one approach over another. However, it is argued here that the researcher must be clear about his or her own understanding of what science is within the different worldviews and clarify his/her own position, as this determines to a large extent the logic and also sequence of, and role of theory in, the research process. References to relevant textbooks, such as Creswell (2014), are presented in Chapter 4.

Scientific standards

Evaluative standards for what is 'good' research differ between the types of research. For example, between qualitative, interpretive research and positivistic quantitative, theory-testing research. A good overview of the differences is provided by Schwartz-Shea and Yanow (2012), but there are ample alternative sources that are discussing these differences. Some standards are:

- The thesis must be reliable / theory-based. Theories in this respect can be understood as sets of explanation systems or concepts for observable phenomena in the real world. The student's departure in gaining an understanding of empirical phenomena must be taken from existing theoretical literature. The student is furthermore expected to discuss and to reflect his or her findings against the existing theoretical literature as well as empirical literature. Theoretical literature claims to contain explanation systems for real world phenomena, whereas empirical literature is characterised by its descriptive focus of cases and situations.
- The thesis must be verifiable. This is only possible if a clear line of argumentation through the existing theoretical and empirical literature is given, and the underlying assumptions are made explicit. Ideally, also the original data, e.g. interview reports, field measurements, and so on, should be included in the work (usually as an appendix) to allow the reader to verify the drawn conclusions. Science is always at least partially subjective, as science in itself is a social activity carried out by human beings. However, this fact should never lead to the rejection of the call for scientific objectivity. Scientific objectivity thereby does not result out of a fictive unconditional assumption, but out of the clear exemplification and reflection of the conditions and assumptions underlying the research process.
- The thesis must be in principle replicable. It should (at least in principle) be possible to repeat the empirical part, thereby leading to similar results and conclusions. This is only possible if the methods for data collection and for data analysis are clearly described and if the work process is as much as unbiased and reflective as possible.

In general, students are expected to act according to the General Code of Conduct for Scientific Practice of VNSU. All universities in the Netherlands apply this code, which includes principles for good teaching and research. It is based on the following principles (www.vnsu.nl):

- honesty and scrupulousness
- reliability
- verifiability
- impartiality
- independence
- responsibility

Researchers, lecturers and students must respect this code and call each other to account on any questionable behaviour. When a violation of integrity is suspected, a complaint can be submitted to the scientific integrity committee of the university. The code can be downloaded (in Dutch and English) at the VNSU website (http://www.vnsu.nl/en_GB/netherlands-code-of-conduct-scientific-practice.html).

Plagiarism

The definition of plagiarism in the online Oxford Dictionary is: “*The practice of taking someone else's work or ideas and passing them off as one's own*” (Oxford University Press, 2017). All published and unpublished material is included in this definition. Plagiarism is an act of fraud, and one of the most serious violations of integrity in the academic world. Common types of plagiarism are¹:

- “turning in someone else's work as your own;
- copying words or ideas from someone else without giving credit;
- failing to put a quotation in quotation marks;
- giving incorrect information about the source of a quotation;
- changing words but copying the sentence structure of a source without giving credit;
- copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not”.

Some examples of plagiarism and information on how to cite sources correctly are presented in Annex 5.2.

1.3 Basic requirements and necessary skills

For the successful completion of a MSc-thesis specific knowledge and certain skills are basic requirements. This means that students normally should start to work on their MSc-thesis only after having obtained an adequate coverage of relevant courses in the field of land-use planning.

Students in the MLP program should have successfully completed the majority of compulsory courses of the first year before they can start with the MSc thesis. Two compulsory courses are GEO37806 Research Methodology for Planning and Design and LUP32806 Political dilemmas of spatial planning. Other important courses are LAR37306 Reflections on Planning and Design Practices, LUP37806 Planning Society and Innovation, and LUP36806 Landscape Theory and Analysis.

Students in the MUE program should have completed the compulsory courses in the planning track, i.e. the courses LUP32806 Political dilemmas of spatial planning, LAR37306 Reflections on Planning and Design Practices, LUP23806 Planning for Urban Quality of Life and ETE33806 Planning and Design of Urban Space for a major thesis (36 ECTS).

Students doing a minor thesis (24 ECTS) should have completed the course LUP32806 Political dilemmas of spatial planning and one other planning course.

In general, knowledge of theory and methodology of planning and methodology of research are a prerequisite for starting a thesis in Land Use Planning. It is the student's own responsibility to acquire the necessary knowledge and skills in time before starting with the thesis. Upon the start of the research the study advisor is asked to confirm

¹ Source: <http://www.plagiarism.org/article/what-is-plagiarism>, accessed 18 October 2017

that the student has successfully completed the compulsory courses and is allowed to start with a MSc thesis (see also Section 3.1 about the MSc thesis agreement).

1.4 Types of research

The thesis should be conducted on a MSc graduate level and written for the Land Use Planning specialisation (MLP) or Land Use Planning track (MUE). This requires that the thesis should be more than descriptive only. It should have an adequate theoretical as well as informational base. The analytical voice of the researcher should resonate clearly. The topic cannot be trivial or superficial. It should, of course, be achievable and reflect the interests of the student. It must be original work, not a copy of a report of an institute or another organisation (see also Section 1.2 on plagiarism). It should be relevant to both the field of spatial planning and to the student's own goals. It should be substantive, a real contribution to the understanding of a significant set of issues. It must also be realistic in scope, so that it can be completed with the resources available. A common type of MSc thesis research in Land Use Planning is case study research. Case study research is an empirical study of a set of issues related to a particular institution, activity, land use, cultural setting, area or region. The course Research Methodology for Planning and Design will further elaborate on case study research and related research methods and techniques.

All thesis research should have a theoretical component. However, with adequate library resources a thesis research may be primarily a theoretical analysis, critique or documentary study of past developments. A theoretical-analytical thesis research is occasionally chosen for a minor thesis, while the major thesis typically includes an empirical component.

2 STEPS IN THE MSc-THESIS PROCESS

2.1 Selection of a topic and supervisors

The first step in the MSc-thesis process is the selection of a topic and a supervisor. The website of the Landscape Architecture and Spatial Planning group can be used to search for a topic, more specifically the [education LUP / MSc thesis](#) page, where you can find for more information about doing a MSc thesis in Land Use Planning. This page also includes an overview of recent examples of MSc thesis reports, which you can use for inspiration.

The first supervisor of the MSc-thesis LUP has to be a lecturer, postdoc, assistant, associate or full professor in Spatial Planning. Spatial Planning is one of the chairs in the Landscape Architecture and Spatial Planning group. A student can decide to contact a potential supervisor directly, based on the information at the website. However, it is also possible to make an appointment with the MSc-thesis contact person for a first exploratory discussion. The final decision to accept the specific topic of a MSc-thesis is always taken by the supervisor.

In exceptional cases it might be necessary to include a second supervisor. A second supervisor can be a PhD student in Spatial Planning, a member of another group of Wageningen UR, or a member of an external organization such as a governmental or research organization or consultancy agency. However, co-supervision by other members of Wageningen UR means that the supervision time needs to be distributed among the supervisors, which is usually problematic given the limited time available for supervision (see also Section 3.1). Co-supervision by an expert from an external organization is more common, especially in those situations where the thesis research takes its starting point from a specific problem of an organization in planning practice.

In some cases, it might be helpful to combine the MSc-thesis work with a (short) stay in the area of research, for gathering empirical data and collecting other information from activities such as field visits and interviews with local stakeholders. All arrangements must be settled by the student in time and must be agreed upon by the supervisor. Also, students need to be aware that the Landscape Architecture and Spatial Planning group has no regular funds available to support students with travel and accommodation costs (see also Section 3.3).

2.2 Preparation of a research proposal

After the selection of a topic the next step in the thesis work is the preparation of a consistent and comprehensive research proposal of approximately 10 pages. The thesis proposal is a product of a process of preparatory research around the theme that will be developed. Students must become familiar with the theoretical problems, the historical context and the empirical details of the theme to be able to define, in precise terms, what it is that will be studied and how it will be studied. As many researchers have shown, a main challenge of research is to specifically define the research questions. It is necessary to understand and incorporate existing scientific knowledge, de-

parting from the actual problem, to be able to enhance scientific knowledge. Given its importance, this step might require up to 25% of the total thesis research time.

A research proposal generally consists of the following parts:

- a) **Introduction:** The first part of the proposal introduces the societal problem the research is focusing on, by providing a background of the problems or issues leading to the delineation of the research topic, reflecting the societal relevance of the research. Consequently, this section requires a first, rough outline of the relevant literature on the societal problem.
- b) **Problem description:** The next part builds upon the societal problem by identifying how this problem has, so far, been dealt with in the scientific literature. This includes a concise review of the theoretical and empirical literature relevant to the topic (the latter more elaborate than in the introduction), This will clarify how the envisioned research builds upon, and adds to research done by others. The section ends with a scientific problem statement. The text so far may also lead to the formulation of a purpose statement that explains why you want to do the study and what you plan to accomplish. It summarises the intent of the study.
- c) **Research objective and research questions:** Following the problem statement, the scientific research objective should be clearly stated. Given the fact that scientific research aims at the process of theoretical reconstruction of the topic at stake (in the sense of providing explanation systems), scientific objectives are very often expressed with terms such as to enlighten, to understand, to explore, to determine, to highlight, to verify. It is important that the objective of the research (1) is strictly related to the research topic, that is, that it does not change the focus by introducing elements not already implicit in the topic, and (2) that it exhausts the topic completely, that is, it does not leave out any object or relation already posited.

A research objective should, on the one hand, be determined by the challenge to deepen theoretical knowledge, analytical capacities and techniques and methods of planning, and, on the other hand, by pragmatic reasons, such as available time, actual research conditions (e.g., availability of resource persons, political events, tourist season), and the capacity of the student.

Subsequently, the research objective should be translated into research questions, that are the questions that need to be answered in order to fulfil the research objective. In this respect, the research questions turn the research topic into something researchable. Usually the research questions include a main question, following the objective, and sub-questions that focus on the different components of the main question. (Note that research questions are different than interview questions). Because the theoretical framework will only be presented later in the thesis, you cannot pose questions with concepts that have not yet been introduced. To solve this 'problem', the introduction typically contains a rough, 'laypersons' version of the central questions of the thesis, and the theoretically-informed version of the questions will follow after the presentation of the theoretical framework. This ensures that there will be coherence between the different parts of the thesis. It needs to be very clear how the conceptual/ theoretical ideas as presented in the theory chapter are relevant for the research project.

Good research questions start with 'how', or 'why' (with more basic questions 'what', 'who', 'when' building up towards the 'how' and 'why' questions. 'How can' questions are signposting intervention questions that are very difficult (if not impossible) to have as the core of a MSc thesis research project. However, the overall aim of the project, that the research is providing input for, may be oriented towards interventions and the recommendations resulting from the research may be geared towards intervening in a particular situation, too. But that is only after a solid research project has been carried out.

- d) **Theoretical/conceptual ideas and framework:** The topic and questions of a study often come from a combination of engagement with a particular problem in the field, with a debate in the literature, or from prior experience of the student. Regardless of the origin of the particular interest, the student will start to read about the topic and identify a theoretical debate that he or she wants to contribute to with the study. It is important that there is a logical relationship between the topic/questions and the theoretical framework, otherwise the latter cannot give a clear direction to the overall thesis work. For example, choosing discourse theory means that the analyst will acknowledge that there is a focus on texts (e.g. transcripts of interviews, policy documents, text in film, etcetera), that texts are interpreted in different ways by different actors, and that there is no such thing as 'the truth', but that there is power in discourse. In other words, the theoretical framework guides the student in his or her approach to the theoretical reconstruction of the topic. In the thesis report, the theoretical framework is generally included as Chapter 2, directly following the introduction chapter.

Theoretical categories demarcate the research within a specific discipline and school of thought or paradigm. Of course, there is a lot of research that we do on planning practices that overlaps with different disciplines or schools of thought. In the exposition of the theoretical framework, the main theoretical categories/concepts should be described, along with their relations to the topic under investigation. It is important to keep in mind that the student should reflect and give his/her own view on existing theories and concepts, and provide an argumentation for *why* the adopted concepts seem relevant for the research topic at hand. The final result is the students' own conceptual framework. This framework of selected (elements of) existing theories and concepts structures the phase of data collection, for example by providing the content structure for the list of interview questions. Developing the theoretical framework is therefore a creative act, rather than a descriptive exercise through existing literature.

The theoretical framework should be focused and to-the-point. The relevance of existing theories and theoretical concepts for developing the theoretical framework should always be done against the background of the research objective and questions. These help to determine which theories and concepts are relevant for the thesis research and which are not. Also note that developing a research proposal is not so much a strict linear, chronological, but rather an iterative process (in the sense of a dialectical movement between concrete reality and theory) with several 'working' versions before finally writing the definitive proposal. A comprehensive review on existing theoretical and empirical literature thereby forms the indispensable basis to come from the pre-scientific understanding (on which the selection of the topic was based) to a deeper theoretical understanding of the topic (which is needed to actually start writing the real thesis proposal).

As has been said: developing the theoretical framework is a creative act, rather than a descriptive exercise. If there are debates around the definition of concepts or their application, the major insights in the debate should be laid out, showing the differences and similarities and finally, how the student will incorporate them into his/her research. Also, if the direct application of concepts and theories is not possible to the chosen topic (e.g., because the theory is about decision-making in organisations, whereas the focus of the work might lay on individual decision-making), it should be pointed out how these have been adapted by the student respectively.

The theoretical framework, sometimes presented in a condensed form as a conceptual model, acts as a lens or a map to explore how those concepts are relevant to the topic of the research project, which have been found to be relevant so far by theoretical and empirical literature. It is obvious that the theoretical framework – to a large extent – identifies the relationship between the MSc research project and one or more debates on the topic in the scientific literature. Investing time and energy in preparing a good, and analytically sharp theoretical framework is therefore important, and it can also help to save a lot of problems and obstacles afterwards. The theoretical framework facilitates the formulation of more focused, theoretically informed research questions.

- e) **Research methodology:** With the theoretical framework the student indicates *which* concepts he or she considers relevant and important for coming to a better understanding of the topic at hand, and for answering the research questions. In this part of the proposal it should be explained *how* these concepts are becoming relevant for the empirical inquiry. Methodology in general is then nothing else but the science about methods and instruments for the understanding of the research topic under consideration, or more technically, the generation of empirical data. For more information see the references in Chapter 4.

Setting up a sound methodological framework requires building up an argument about the following points:

- Identify the **character of the thesis work**: for example, is it an explorative or comparative, or interpretative, or analytical study? In what scientific worldview does the work originate? (e.g. it can be positivistic or interpretive, this is often also indicated in the introduction so that the reader already knows what to expect in terms of the worldview of the researcher). What is the research design – is it quantitative, qualitative or a mix of both? Is a case study approach chosen to exemplify a certain real-world phenomena / research topic or does the thesis work aim at being representative for them? It is obvious that with the selection of the topic and the formulation of the problem statement the student already implicitly provides answers to many of these questions. However, only in making them explicit, the student allows for the discussion of his work, as the students' assumptions and logical framework can be understood.
- Design the **data collection** and **data analysis**: this step requires arguing about and providing an answer to the following questions:
 - (1) What is seen as *data* and from which sources of information (e.g., maps, documents, individuals, and institutions) will they be derived? Data

can take on the quality of primary data (that is, collected by the researcher, e.g. through interviews or through document analyses) as well as that of secondary data (new analysis of data generated by earlier research).

(2) What are the criteria for determining and delineating the sources of information (e.g. Who will be interviewed? Why those policy documents and not the others? Why selecting this case study and not another?). The answers to these questions are partially dependent on whether qualitative or quantitative research methods are chosen (see next question).

(3) What *methods* and *instruments* are employed to derive and analyse the data from the sources of information? The selection of adequate methods depends on the sources of information, which are seen as relevant to find answers to the posed research questions. Here the student has to argue why a certain method is most appropriate for the research topic at stake. As no single method is really suitable to fully capture the complexity of real world phenomena, very often a combination of different methods will be applied to assess the *same* phenomena in order not to miss important information and to fulfil the evaluation standards (such as validity and reliability for positivistic methodologies; and trustworthiness and systematicity for interpretive methodologies).

(4) It should be pointed out that methods and instruments are necessary for the *data collection* (that is, to come from theory to data) as well as for *data analysis* (that is, to come from data to theory).

- Present the strategies that will be used to enhance the credibility/ trustworthiness of the research. For example: how are obtained insights shared with participants in the research, (how) are peers going to reflect on findings, will the research engage in thick description, how will the use of different methods contribute to the credibility of the final product? How does the researcher deal with potential bias, in other words how does his/her position play a role? These strategies are particularly important in qualitative research projects.
- f) **Working plan and time scheme:** The research proposal finally should be completed by a comprehensive working plan, indicating the necessary steps in carrying out the research, as well as their logical order. The different steps in writing the MSc-thesis should be distributed in a feasible manner over the available time period (6 months for the major thesis LUP-80436 of 36 ECTS or 4 months for the minor thesis LUP-80424 of 24 ECTS). The student should also agree with the supervisor about the frequency of contacts as well as the deadlines for delivering certain parts of the thesis proposal or report. (See also paragraph 3.1)
- Preparing the working plan implies additionally to elaborate a financial plan, such as costs for travel, mailing costs, field assistance (e.g. for translation) etc. The general necessity of financial means to carry out the thesis work needs to be discussed and agreed between student and supervisor before the actual thesis work (usually, the students pay the costs related to the thesis work themselves).
- This section should also address potential limitations - what barriers and or constraints do you expect in the process of conducting the research?

2.3 Giving a start colloquium

The phase of writing a proposal is concluded by a presentation of the proposal to fellow MSc students and scientific staff members in a colloquium. In this colloquium you will present an outline of your research plans and ask your fellow students to reflect on parts of the research process that you have got questions about and their feedback on your proposal in general. The presentation should take about 10 minutes, with an additional 10 minutes for questions and discussion afterward. You will organize the start colloquium together with 2 or 3 other students.

Topics to be addressed in the colloquium:

1. Background of the thesis and its scientific interest
2. The scientific objective(s) of the thesis project
3. The most relevant theories (concepts) and what they entail and mean for your research project
4. The types of information you need and how you are going to obtain that information by applying your research methods
5. A clarification of the methodology and related methods that you will use
6. How information to be generated in your research will relate to the objective of your research project
7. Questions or problems that you want to discuss with the audience

To aid the preparation and discussion, you are asked to complete the information sheet of the start colloquium, and take some printed copies with you, which can be handed out to the audience. Furthermore, you should give the sheet one day before the start colloquium to one of the other students who is giving a start colloquium together with you, and ask this student to review your sheet and presentation the next day specifically. This student is given the opportunity to be the first presenter of feedback in the discussion after your presentation. The information sheet can be downloaded from the MSc thesis page of our website. Starting (and final) colloquia are typically organized in the meeting room of the Landscape Architecture and Spatial Planning group, GAIA A.201. Please note that a presentation screen is available at this room, but students should bring their own laptop.

2.4 Carrying out the research

When carrying out the research, special attention should be given to organisational and safety aspects, especially when working abroad. Possible economic, social and technical constrains (e.g. restricted or expensive data, holidays of interviewees) should be taken into account as much as possible in advance of the research work. If unforeseeable circumstances do occur, the research plan should be adapted after consultation with the supervisor respectively.

In any case, the student has to respect social, cultural and interpersonal norms and standards. This holds particularly true for privacy aspects of organisations and persons. In any case, it should be avoided that the identity of persons is discernible out of the final text, if not agreed otherwise between the respondents and the researcher. These agreements have to be laid down before information collection.

It is recommended to clearly document all research activities, findings and sources, including also seemingly small details. Analytical skills should be accompanied by organisational accuracy. Experience shows that this can save a lot of time when finally preparing the thesis report.

Also, in the phase of carrying out the research it is recommended to keep in close contact with the supervisor. This is the responsibility of the student.

2.5 Writing the thesis report

The research activities should finally result in a comprehensive, consistent and concise thesis report. The thesis report will average approximately 60 to 80 pages, organized in a minimum of four to five chapters (e.g. font Times New Roman, 11 point, and line spacing 1,2). It should be written according to scientific standards, with a clear layout. In general the following parts structure the thesis report:

- **Cover:** Showing the title of the thesis research, the name of the student and a representative picture, graph or other attractive visual element representing the topic of the thesis research.
- **Title page:** Providing the name and registration number of the student, the full title of the thesis research, the course name and code (usually LUP-80436 for a major thesis or LUP-80424 for a minor thesis), the number of credits (ECTS), the study program of the student, the name(s) of the supervisor(s) and second reviewer, and the full name and address of the Wageningen University, Landscape Architecture and Spatial Planning Group.
- **Table of content:** Providing the overview of chapters and paragraphs with the respective page numbers. The table of content should also include a list of annexes.
- **Abstract:** Providing 10 lines abstract, including five keywords.
- **Summary:** Providing a short, but comprehensive summary of the problem, objective, approach and results of the research. The length should not exceed one page. If relevant, also include a Dutch summary.
- **Introduction:** This chapter includes a general introduction, the problem description and problem statement, the scientific objective as well as a preliminary version of the research questions (see also chapter 'Research proposal'). It can be completed by a characterisation of the type of work (referring to the first question in the methodology part of the research proposal) and a short outline of the structure of the subsequent chapters.
- **Theoretical framework:** In this chapter (normally chapter 2) the review of the theoretical and empirical literature, and the reconstruction of the used theoretical concepts will be provided (see also section 'Research proposal'). The theoretical framework is very often completed by a conceptual model or analytical framework (see also chapter 'Preparation of a research proposal') and is followed by your detailed (theoretically-informed) research questions.
- **Methods:** This part reports on the used information sources, as well as the applied methods and instruments for data collection and data analysis (see also section 'Research proposal'). In contrast to the research proposal, where this section is presenting the ambitions and plan, in the final thesis report the

research as it has actually been conducted (including problems which have occurred) should be presented, so this section is usually written in the past tense. If the research has been a case study, circumstances as well as the case should be described here.

- **Results:** This section presents the results in the most objective and comprehensive manner. Mixing the results with an explanation of what was done (i.e. methods) or subjective interpretation (i.e. discussion) should be avoided. The challenge is to structure the results chapter clearly, for example along the line of the analytic framework. Where appropriate the findings should be illustrated or summarised with tables and figures. Appropriateness means that they provide an added value compared to ordinary text. In any case, tables and figures must thereby be drawn in such a way that they can stand on their own, independent from the surrounding text. Do not forget to include measurements and an explanation of abbreviations. References to tables and figures should be made in the text (e.g., see Table 1 and Figure 2). Note that table captions are given above the table, whereas figure captions are placed below the figure.
- **Discussion:** This section discusses the findings in the context of the scientific objective and the research questions, as well as in the light of the chosen theoretical framework. The challenge here is to argue for and against the findings and the related theoretical concepts. What nuance did the investigation render? The discussion section links the findings, as presented in the results section, with the findings as they have been presented in other research projects. New theory might be developed here on the basis of the findings. Literature references are therefore again necessary in this section. Often, the discussion section is structured along the line of the sub-research questions, which are being answered and discussed. Also, the extent to which the findings might have been influenced by the chosen methods need to be discussed here (e.g., possible limitations, shortcomings and special circumstances).
- **Conclusion:** This section brings together the most important consequences in the students' perspective of his or her research and answers the main research question. The conclusion section normally touches on three aspects: a) The scientific objective and the main research question, b) Recommendations for future research on this topic (theoretical framework and methods), c) Practical application of the results (consequences or recommendations for management and policy, suggestions for interventions). The discussion and conclusion are sometimes presented together as sub-sections of the final chapter of the report.
- **Bibliography:** In this section a list of all referred literature should be given, sorted in alphabetical order by the last name of the author. Information given in the bibliography should be complete and accurate. The style for the different types of publications (articles in journals, books, chapters in books etc.) should be consistent. Some researchers prefer to mention information sources, such as policy documents and Internet sources separately. If reference is made to information on the Internet, the complete web-address should

be given, as well as the date on which the information has been accessed the latest.

- **Annex/Appendix:** The annex should include information, which can be missed in the direct text body, but is still relevant for the understanding of the research or of important steps of it. This could mean for example the inclusion of the original data, the full list of interview questions, background information on the study area, interview reports, further detailed statistical analysis, and so on. Note that also the annex pages should be numbered consistently with the general text.

The above presented structure reflects a commonly used chapter structure of scientific reports. However, different types of research (e.g., theoretical-analytical research) might require a slightly different chapter structure.

2.6 Finalizing the thesis

The last phase of the thesis research includes a discussion of the draft thesis and the final colloquium and examination. First, a complete final draft of the report should be discussed with the supervisor(s) (and if applicable also with external supervisors) prior to the final colloquium and examination. The discussion of the draft report represents a “green light” meeting. At the end of the meeting the supervisor(s) decide(s) if the student can proceed with finalizing the thesis report (taking care of the comments and feedback of the discussion) and the final colloquium and examination.

2.7 Giving a final colloquium

After finalizing the thesis report, the student is required to present the major findings of his or her research to an audience. The audience usually includes fellow MSc students, staff members of the Landscape Architecture and Spatial Planning group, and other interested people. The length of the presentation should not exceed 20 minutes, followed by 20 minutes for discussion. The presentation should meet the standards for oral presentations, such as clearly addressing the audience with a comprehensive, consistent and logical structure, typically supported by visual tools, such as a Power-Point presentation. Colloquia usually take place in the meeting room of the Landscape Architecture and Spatial Planning group, GAIA A.201. Please note that a presentation screen is available, but students should bring their own lap-top.

2.8 Final examination

The objective of the final examination is to reflect on the whole scientific training process, which the student has undergone in preparing the MSc-thesis as well as to place the MSc-thesis within the on-going debates and the larger contexts within the field of spatial planning. The people taking part in the final examination are the student, the supervisor(s) and a second reviewer. The second reviewer can be the examiner of the MSc thesis (the Spatial Planning chair holder) or another scientific staff member in Spatial Planning of the Landscape Architecture and Spatial Planning group. The examination usually takes place subsequent to the colloquium. The date for the final colloquium and examination should be arranged two to four weeks in advance. It is the students' responsibility to provide the supervisor and second reviewer with a printed

copy of the final MSc-thesis one or two weeks in advance of the examination (the required reading time needs to be agreed upon when setting the date of the colloquium and examination).

The examination takes about 45 minutes, with about 30 minutes for questions and discussions. Following the questions and discussion, the student will be asked to leave the room for a short while, during which the supervisor and second reviewer will agree upon the tentative grade. The student will then receive oral feedback and the announcement of the tentative grade.

Afterward, the supervisor and second reviewer will fill in the thesis evaluation sheet of the Wageningen Educational Institute. The sheet includes sub-grades for the different aspects of the thesis research, a final grade and extensive written comments and feedback by the supervisor and second reviewer. They will both sign the form and the supervisor will take care of the communication of the grade to the secretary of the Landscape Architecture and Spatial Planning group. The secretary will upload the grade to the central student administration. It should be noted, however, that the MSc-thesis work can successfully pass only after all administrative issues (see following section) have been completed.

3 ADMINISTRATIVE ISSUES AND GRADING

3.1 MSc-thesis agreement

No MSc-thesis without an agreement! The MSc-thesis officially starts only after the student, the supervisor and the study advisor have signed the MSc-thesis agreement (see the annex). The agreement serves to lay down agreements between a master student and a chair group. The agreement registers rights and duties of both parties and is a further supplementation and elaboration of the Higher Education and Research Act (WHW), Education and Examining Regulations and the Student Charter. With the contract the student and supervisor acknowledge to be aware of these rights and duties and will act according to the General Code of Conduct for Scientific Practice, as described in the introduction section. More information about the Student Charter can be found at the website of Wageningen University.

In the agreement all aspects with respect to the MSc-work are laid down, such as course requirements, time period (including possible extra time needed to follow other courses or external activities such as holidays), planned research steps, intensity and arrangements with regard to supervision. The idea of the agreement is to provide clarity in advance of the process and time schedule of the thesis research, in order to avoid disappointments later on. Not obeying the agreement can lead to termination of the training process, with a grade below 6 (fail). The most important requirements are:

- The student will have regular meetings with the supervisor, in order to keep the supervisor updated on the progress of the research and to get feedback on written text. Usually, all draft chapters and other important parts, such as lists of interview questions, will be discussed in due course of the research. In subsequent meetings the student has to make clear how he or she dealt with remarks and comments of the supervisor.
- The maximum amount of time available for MSc thesis supervision is 50 hours for a major thesis (36 ECTS) and 40 hours for a minor thesis (24 ECTS). However, 2 hours are allocated for general MSc thesis activities such as thesis information meetings, and 5 hours for the second reviewer (see also Section 2.8). That leaves 43 hours of supervision by the supervisor(s). His/her time includes time for reading, meetings and assistance in general. Students are asked to include an overview of time management for supervision in their thesis proposal, and to keep a record of supervision hours throughout the thesis process. It is considered good practice to send a summary of the outcome of the discussion and action points to your supervisor following the meeting.

The procedure for signing the MSc-thesis agreement is as follows:

- Upon start of the research, the student asks the study advisor to sign the first page of the agreement, by delivering a hard copy of the agreement to the office of the study adviser. MLP students can also send the agreement by email to mlp.msc@wur.nl. The signature of the study advisor confirms that the student is allowed to start with the MSc-thesis research. Afterward, the student and supervisor complete the remainder of the agreement and sign as well.
- The supervisor will deliver the agreement to the examiner, who will also sign the document. The signed copy is stored at the secretariat of the Landscape

Architecture and Spatial Planning group. The secretary will send a copy by email to the student. The student is responsible for delivering a copy of the signed agreement to the study advisor.

- The student is also requested to send the final research proposal, after completion, to the secretariat of the Landscape Architecture and Spatial Planning group for archiving (see Annex 5.1 for names).

3.2 Office space and available software

The Landscape Architecture and Spatial Planning group provides office space for MSc thesis students, but a student may also decide to work at home or to make use of the general facilities at the educational buildings (Forum and Orion). Students who prefer having office space at the GAIA building can make use of room A.208. This room has flexible workplaces and PCs with double screens for MSc thesis students LUP. Room A.101 is available as temporary working space in case A.208 is full. The PCs are installed with general software, such as Microsoft Office. For special software, such as Atlas.ti or GMS (Graphical MyWorkspace), you will need a personal licence. Please contact our secretary at an early stage to request access to this software, as it may take some days to handle this request.

3.3 Costs associated with carrying out the MSc-research

In general, costs related to the thesis research are to be paid by the student himself, with exception of the printed versions of the final thesis report (see next section). Local and international travel expenses are not reimbursed by the Landscape Architecture and Spatial Planning group. The only exception are local travel expenses associated with externally funded research projects. For those projects a max of €250 can be reimbursed, but only if arrangements and budget were approved by the thesis supervisor before the start of the field work. For international travel expenses students can apply for external grants, such as an Erasmus+ grant² and travel allowance for an internship or thesis abroad to a European country (between €270 and €390 a month + travel allowance) or the EFL foundation³ (international travel expenses). See also the pages about study exchange at the website of the Wageningen University.

3.4 Printing costs

A student should submit printed versions of the final thesis report to the supervisor(s) and second reviewer. For reproducing – generally two but max three – copies of the final report, the Landscape Architecture and Spatial Planning group provides a maximum of € 50,00. The printing costs can only be re-claimed upon delivery of an original receipt. Forms for refund of the printing costs can be requested at the financial administrator of the Landscape Architecture and Spatial Planning group (for names see Annex 5.1).

² <https://www.wur.nl/en/Education-Programmes/Study-Abroad-and-Exchange-Students/Outgoing-from-Wageningen-University/Erasmus-grant.htm>

³ <https://efl-stichting.nl/>

3.5 Start and final colloquia

The student is responsible for organising the start and final colloquia. See also sections 2.3 and 2.7. It is the student's responsibility to invite people for the colloquium. Support with distributing the invitation is provided by the secretary of Landscape Architecture and Spatial Planning and the email newsletter of Genius Loci (for MLP students). However, it shows that personal invitations usually are the most effective to gather an audience for the colloquium. The colloquia usually take place in room A.201 at Gaia.

3.6 Participation in other MSc-colloquia

MSc-students are obliged to participate in at least three final MSc-colloquia of other MSc students before giving their own final colloquium. An attendance list is available at the MSc thesis page of our website. MSc students are responsible themselves to print this list, to take the list with them to the colloquium they attend and to ask the supervisor of the colloquium to sign the form. The list needs to be handed in during the final examination and will be enclosed with the thesis evaluation sheet (see next Section).

However, following start and final colloquia is strongly recommended in general. Working on a MSc-thesis can sometimes become a rather lonesome business. The idea of the colloquia is therefore to enhance further discussion and exchange between MSc-students and staff members as well as to further train students in oral presentation abilities. Participating in colloquia usually helps to rethink the structure and content of your own research and to improve the quality of your own work.

3.7 Thesis evaluation sheet

Written feedback on the student's performance will be provided through the thesis evaluation sheet of the Educational Institute. The sheet consists of four groups of criteria for judging the quality of a thesis (see Annex 5.4), namely:

- **Research competences** of the student, focusing on a) Commitment and perseverance; b) Initiative and creativity; c) Independence; d) Efficiency in working with data; e) Handling supervisor's comments and development of research skills; and f) Keeping to the time schedule.
- **Thesis report** focusing on a) Relevance research, clearness goals, delineation research; b) Theoretical underpinning, use of literature; c) Use of methods and data; d) Critical reflection on the research performed (discussion); e) Clarity of conclusions and recommendations; and f) Writing skills.
- **Colloquium** focusing on a) Graphical presentation; and b) Verbal presentation and defence.
- **Examination** focusing at a) Defence of the thesis; and b) Knowledge of study domain.

The sheet also includes some space for additional remarks. The supervisor and examiner / second reviewer will use the evaluation sheet with the final examination to arrive at the final grade. The grade will be clarified by the supervisor and discussed with the student. The student will receive a signed copy of the sheet. The rubric in Annex 5.5 explains how these criteria are used for grading.

3.8 Grading

The grading will be based on the standard grading scale at Wageningen University ranging from 0 to 10, using half grades, with a grade lower than 6 meaning failed (see also the thesis evaluation sheet in the annex). The tentative grade will be announced immediately after the final examination talk. The final grade after completion of the thesis evaluation sheet.

The grade reflects all elements and steps in the preparation of the MSc-thesis, including the colloquium and the final examination talk (see above). However, main emphasis will be given to the research competences and the thesis report. The weights used for a MSc thesis Land Use Planning (as of February 2020) are 40% to competences, 50% to the report, 5% to the colloquium and 5% to the final examination.

3.9 Completing the administrative requirements

Before the final grade can be passed on to Wageningen University's central student administration, the student must submit a digital version of the report as a pdf file to the supervisor, for uploading in the library system of the Wageningen University. The supervisor will deliver the evaluation form and the digital version of the report to the secretary of the Landscape Architecture and Spatial Planning group.

4 STARTING LITERATURE

The following list of literature does not intend to provide a complete nor exhaustive overview of helpful and interesting literature when starting a MSc-thesis research. It mainly focuses at standard publications that are easily accessible at the libraries in Wageningen, some of these have been used in prior courses.

More specific literature can be found with the search facilities of the WUR library at: <http://library.wur.nl>. This website also provides a link to browse the wealth of online accessible journals (see also <http://www.sciencedirect.com/science>). Another entrance to scientific literature is Google Scholar (<http://scholar.google.nl/>).

4.1 Science and philosophy

- Flyvbjerg, B., 1998. *Rationality and power, Democracy in practice*. The University of Chicago Press, London.
- Flyvbjerg, B., 2001. *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge University Press, Cambridge.
- Fuller, S., 2000. *The governance of science: Ideology and the future of the open society*. Open University Press, Buckingham.
- Gower, B., 1997. *Scientific method: An historical and philosophical introduction*. Routledge, London.
- Heywood, A., 1994. *Political ideas and concepts: An introduction*. MacMillan, Basingstoke.
- Hollis, M., 1994. *The philosophy of social science: An introduction*. Cambridge University Press, Cambridge.
- Klemke, E.D., R. Hollinger and A.D. Kline, 1998. *Introductory readings in the philosophy of science*. Prometheus, Amherst, New York.
- Loose, J., 2004. *Theories of scientific progress: An introduction*. Routledge, New York.
- Nowotny, H., P. Scott and M. Gibbons, 2001. *Re-thinking science: Knowledge and the public in an age of uncertainty*. Polity, Cambridge.
- Stevenson, L. and H. Byerly, 1995. *The many faces of science: An introduction to scientists, values, and society*. Westview, Boulder.
- Vries, G. de, 1995. *De ontwikkeling van wetenschap: Een inleiding in de wetenschapsfilosofie*. Wolters-Noordhoff, Groningen.

4.2 Annotated bibliography about methodology

Formulating research questions

Verschuren, P., & Doorewaard, H. (2010). Designing a Research project (second edition). The Hague: Eleven International Publishing: pp 93 - 97.

This book section of just 4 pages by Verschuren and Doorewaard presents some criteria for formulating good research questions.

Agee, J. (2009). Developing qualitative research questions: A reflective process. International Journal of Qualitative Studies in Education, 22(4), 431-447.

Finding focus: formulating a topic and research questions

Booth, W. C., Colomb, G. G., & Williams, J. M. (2008). Chicago and London: The University of Chicago Press. From topic to questions (chapter 3), from questions to problem (chapter 4)

These two chapters can help you 'getting to the point' and moving from what seems a really good idea, to a topic and your research questions and problem.

I particularly find the following heuristic instrument useful (try!):

1. Topic: I am studying _____ (topic)
2. Question: Because I want to find out what/why/how _____ (what you want to know)
3. Significance: In order to help my reader understand _____ (rationale/relevance)

Challenges of doing research (including useful heuristics/learning tools to help you focus your research)

Wagenaar, H. (2011) Strategies of Interpretive Policy Research. Chapter 9 in H. Wagenaar, Meaning in Action; Interpretation and dialogue in policy analysis. New York: M.E. Sharpe.

This is a nicely, quite accessibly written chapter that introduces you to the challenges of actually *doing* research, and the interactive character of obtaining a greater understanding. It also introduces collecting data through interviewing and elaborates on analyzing interviews. Note how the author helps students focusing by asking: "what is the real world problem you are working on"? (referring to Deborah Stone) Also, he suggests adding modifying verbs or phrases to your topic to turn it into a claim. This way, it becomes easier to formulate questions. Look up the relevant part and try using the heuristic for your own topic!

Interpreting and analyzing qualitative data

Silverman, R. M. (2015). Analysing qualitative data. In P. H. Elisabete A. Silva, Patsy Healey, Neil Harris, Pieter Van den Broeck (Ed.), The Routledge Handbook of Planning Research Methods (pp. 140-155). New York: Routledge.

This is a chapter from the Routledge Handbook of Planning Research Methods. This chapter by R. Silverman is only short, but provides a good insight into data analysis and, for example, the distinction between open and focused coding. A more comprehensive reference guide is the book by another Silverman: David Silverman:

Silverman, D. (2014). Interpreting qualitative data. Los Angeles etcetera: Sage.

Another attractive, quite concise book about qualitative data analysis is the following:

Schwartz-Shea, P., & Yanow, D. (2012). Interpretive Research Design: concepts and processes. New York: Routledge.

A must-read if one wants to understand differences between positivist and interpretive research practices. Very helpful for writing a proposal. NB. Accessible as eBook in the WUR library (<http://library.wur.nl/WebQuery/clc/1994098>).

A more elaborate book that emphasizes the interpretive nature of empirical research:

Alvesson, M., & Skoldberg, K. (2018). Reflexive methodology; New vistas for Qualitative Research (Third Edition ed.). London etcetera: Sage.

Mixed methods, Validity strategies

Useful as a reference, for this course and also for when you are working on your MSc research (like D. Silverman, but focusing on mixed – quantitative and qualitative - methods). Presents a nice overview of 8 validity/trustworthiness strategies. Many versions of this book can be found on the web, but the library has the current version.

Creswell, J.W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches. Fourth Edition. Sage Publications, London.

Looking up 'validity strategies Creswell' on the web will produce lots of links.

Note however that validity strategies differ between positivist and interpretive research. For example, where the language of triangulation is the word used in positivist/ realist accounts, intertextuality is more appropriate in interpretive research. Read Schwartz-Shea and Yanow and compare with Creswell....

Mathison, S. (1988). Why Triangulate? Educational Researcher, 17(2), 13-17.

On case-study research

There are many misunderstandings about case study research. It is an interesting debate. See this article (and its references) to get the debate going.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. Qualitative Inquiry, 12(2), 219-245.

A more comprehensive book on social science research methodologies from the same author:

Flyvbjerg, B. (2001). Making social science matter; Why social inquiry fails and how it can succeed again. Cambridge etc: Cambridge University Press.

A widely used book about case study research is:

Yin, R.K., 2014. Case study research: Design and methods. Fifth Edition. Thousand Oaks, CA: Sage Publications.

On grounded theory

Grounded theory has different versions, including positivist and constructivist ones. In this article Charmaz describes what Grounded Theory is (for beginners) and what the different versions imply.

Charmaz, K. (2017). Special Invited Paper. International Journal of Qualitative Methods, 16(1), 1609406917719350.

5 ANNEXES

5.1 Checklist of actions and responsibilities

Action & Who

Directly at the start of the thesis research

- Identifying thesis topic: *Student and supervisor*
- Signing first page of the MSc-thesis agreement: *Study advisor*
- Completing and signing MSc-thesis agreement: *Student, supervisor, examiner*
- Archiving the agreement: *Secretariat*

Upon completion of the thesis proposal

- Preparing start colloquium: *Student, together with a few other students*
- Arranging date for start colloquium: *Student(s), supervisor(s)*
- Inviting people for the start colloquium: *Student(s), secretariat*
- Sending thesis proposal to secretariat for archiving: *Student, supervisor*

Draft thesis report

- Discussing draft thesis report: *Supervisor and student*
- Approval to prepare final report and colloquium: *Supervisor*

Final colloquium and examination

- Identifying second reviewer: *Supervisor*
- Setting date colloquium/examination: *Student, supervisor, second reviewer*
- Inviting people for the final colloquium: *Student, secretariat*
- Providing (at least) two printed copies of the final thesis to the supervisor and the second reviewer: *Student*
- Final examination: *Student, supervisor, second reviewer*
- Completing/signing the thesis evaluation form: *Supervisor, second reviewer*
- Delivering the pdf of the thesis report, the powerpoint presentation and files with primary data to the supervisor: *Student*

Names

MSc thesis contact person

MSc thesis examiner

Second reviewer

Secretariat

Financial administrator

Dr ir Gerrit Jan Carsjens

Prof dr. Martha Bakker

Staff member Spatial Planning

Audrey Raijmann-Schut

Annelies Bruinsma

5.2 Plagiarism statement

Authors: staff of the Environmental Policy Group

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 represents 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.⁴ 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"⁵ "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.*"⁶ *It is precisely to avoid discussion about what constitutes plagiarism and its 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 Board 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 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.

⁴ See Department of English Northern Illinois University, <http://www.engl.niu.edu/fycomp/plag.html>

⁵ *MLA Style Manual*, 2nd ed. New York: MLA 1998, page 146.

⁶ US Naval Academy Plagiarism policy

2. Examples of plagiarism

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 maneuver 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 writer 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 the face, without using the 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 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 publicized 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 realized. 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-generalize 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 concrete 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 endeavor. 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 stresses 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 source's concepts, re-phrased 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 neighboring powers often managed to retain much of their internal organization 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 Laven discusses the peculiar organization of Renaissance city-states:

The tenacious particularism of the Italian states gave rise to a wide variety of constitutional solutions and class structures throughout Italy. Even conquered territories and those swallowed up by bigger neighboring 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 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.

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' work⁷

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:

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

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 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:

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

⁷ This section is borrowed directly from the Northwestern University website on plagiarism (<http://www.northwestern.edu/uacc/plagiar.html>)

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.

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

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

¹ Stanford Lehmborg, *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:

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 fine, 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.

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

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

Sources:

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

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

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

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

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

¹Sharon 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

¹Accretion 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 (see example VIII).

F. USING CLASS NOTES

Source: Lecture Notes

A. 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

Professor Mary McKay--March 10, 1995

Use and Adaptation of the 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

¹Mary 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

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

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

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...

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

Response to the Material

Estimates of the number of deaths in Russia during 1915 range from over two million¹ to two and a half million.²

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:

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.

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

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

4. Guidelines to avoid and prevent plagiarism⁸

- 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.
- 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 authorized 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 a 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 instructor 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.

⁸ US Naval Academy Plagiarism Policy

5.3 Wageningen University Master Thesis Agreement

Wageningen University Master Thesis Agreement

This Wageningen University (WU) master thesis agreement serves to lay down agreements between a master student and a chair group. The agreement registers rights and duties of both parties and is a further supplementation and elaboration of the Higher Education and Research Act (WHW), Education and Examining Regulations and the Student Charter.

The form has to be completed for each master thesis by the student and a representative of the chair group before the start of the study activities.

Student and representative sign three copies of the form. Both receive a copy. A third one is sent to a representative of the programme: the study advisor mentioned below.

When the agreement is modified the student will receive a copy of the adjusted form.

For complaints on the supervision or assessment the student can appeal to:

- The study advisor for advice and support
- The Examining Board for advice on procedures or an official complaint.
- The Examination Appeals Board.
- A dean or a Confidential advisor for students

For additional information see the **Explanation** on page 4.

1. Information on student and chair group

Student: _____
 Study programme: _____
 Registration number: _____
 Study advisor: _____

 Chair group: Landscape Architecture and Spatial Planning
 Course code: LUP-
 Supervisor(s)¹: _____
 Examiner: Prof. dr MM Bakker
 External supervisor(s): _____
 (if so)

The student is informed upon the (written) guidelines and rules of the chair group for thesis students: yes/no

2. Prerequisite course(s)

| | | | |
|--------------------|---------|--|--------|
| Course code: _____ | Passed: | <table border="1"><tr><td>yes/no</td></tr></table> | yes/no |
| yes/no | | | |
| Course code: _____ | Passed: | <table border="1"><tr><td>yes/no</td></tr></table> | yes/no |
| yes/no | | | |

3. Admission to the thesis

Study advisor _____ has stated that the student has met all requirements for starting with this master thesis and that the specified thesis is part of the programme of the student.

¹ The supervisor is also the first reviewer. A second reviewer of the chair group will be identified upon finalizing the thesis report.

4. Title and planning

Title of the thesis project:

Date of completion parts of thesis:

Date of start:

Date of finish:

Special arrangements for planning:

5. Arrangements on supervision including mid-term evaluation

(Arrangements on the type and intensity of meetings of student and supervisor on role and responsibilities when more supervisors or more chair groups are involved)

6. Arrangements on facilities

(Work place (office/lab), access to buildings and locations. Availability and use of equipment, materials and facilities)

7. Arrangements on report

(Language and lay out, time and format of transfer of results and data, agreements on secrecy of results and publicity of the thesis report)

8. Arrangements for individual situations.

(Circumstances beyond one's control, disability, absence for special reasons, additional double degree arrangements)

9. Assessment

The MSc Thesis assessment form for theses of WU has to be used.

The percentages in the assessment form that will be used are:

| Learning outcomes (assessment criteria) | percentage |
|---|------------|
| A. Research competence | 40% |
| B. Thesis report | 50% |
| C. Colloquium | 5% |
| D. Examination | 5% |

The assessment will be done in week (on) _____

10. Signature

The student agrees to report any relevant change in circumstances which may affect the results of the project to the supervisor.

The student declares to be acquainted with rules and procedures of the chair group and with the assessment form. The chair group declares to have provided the student with all relevant information (including rules, regulations, safety issues).

Wageningen,

| | Name | Date | Signature |
|---------------------------|--------------------|-------|-----------|
| Student: | _____ | _____ | _____ |
| Supervisor(s): | _____ | _____ | _____ |
| 2 nd Reviewer: | _____ | _____ | _____ |
| Examiner: | Prof. dr MM Bakker | _____ | _____ |

Explanation²

1. Information student and chair group

The study advisor has to be asked for advice on the progress of the student and qualification for a master thesis. The study programme (study advisor) has to be informed about the arrangements students want to make for thesis projects in order to establish whether the programme allows the student to take this thesis and to keep record of the student's progress.

The examiner will be the chair holder being responsible for the thesis. The supervisor takes care of daily supervision. A supervisor from an external organization can not have a formal role, and can not be involved in the marking because he is not a qualified lecturer. If more supervisors and chair groups are involved each role should be explained under item 5. WUR employees outside the university section (e.g. researchers) can be regarded as supervisor like a WU lecturer.

2. Prerequisites

Chairs can require a maximum of two prerequisite courses (in total 12 credits) for starting a thesis. These prerequisites have to be published in the study handbook. The student has to pass the exam(s) to gain access to the thesis.

3. Admission to the thesis

The chair group (supervisor, coordinator education) should contact the study advisor personally to be informed about the student being qualified for starting with the master thesis.

4. Description and planning

In general reference can be made to a previously described project proposal of the chair group with subject and type of activities. It is considered very important that the student writes a detailed project description and is aware of all consequences with respect to type of activities, intensity and planning of work. If the student intends to interrupt the project for exams or leave the supervisor should agree in advance.

5. Arrangements on supervision

A supervisor will have his own rules for planning meetings with students, for involvement of co-workers. Especially when more supervisors and chair groups are involved it should be avoided that the student is confronted with conflicting rules and opinions. Only one supervisor should be the focal point for the student. It is strongly recommended to include a (mid-term) moment of evaluation to discuss progress and adjust the agreement if needed.

6. Arrangements on facilities

The chair group takes care of the facilities the student needs. In general it should be assumed that the student is not familiar with the policy concerning priorities for use of equipment and facilities, and is not aware who is in charge of them. It should be explained to

². Please note Department of Social Sciences has a MSc Protocol with Specific Rules and Regulations and the other three Departments aPlease note Department of Social Sciences has a MSc Protocol with Specific Rules and Regulations and the other three Departments an MSc Thesis Guide (final draft as per December 2013).n MSc Thesis Guide (final draft as per December 2013).

the student that arrangements can never be a guarantee for availability and that because of unpredictable circumstances the thesis project may have to be adapted with respect to time planning and/or content. Chair group and student have to find solutions together.

7. Arrangements on report

Specific rules on the lay-out of a report, the transfer of data sets and processed results have to be agreed.

The thesis project can be part of a larger project in which external partners are involved, or in which results may be generated that require confidentiality. The university has rules on protection and embargo of scientific results. Thesis reports can be registered with a restriction on disclosure of contents. The examiners and supervisor(s), however, always need a full copy to assess the student.

From October 2009 all master theses have to be uploaded to the Wageningen UR Digital Library through the AIR (Administration Enrolment data and Results). It is up to the involved chair group and student to decide whether the thesis will be made public or not in the Digital Library.

8. Arrangement for individual situations

Students can ask for specific facilities e.g. to work with a disability. Student and chair group can ask study advisor or dean for students for advice. Additional arrangements for Double Degree students can be included here if needed.

9. Assessment procedure

Examining Boards and Board of the Education Institute have decided³ in 2006 that all chair groups of WU have to use the standard assessment form for theses and two examiners. The chair group can adjust the weight (percentages) of the assessment criteria on the excel-form. The student should be informed on this (item 9 of this agreement).

The completed assessment form for the thesis has to be uploaded to the AIR.

³ <https://portal2.wur.nl/sites/owi/kwaliteitszorg/Policy Documents and Forms/thesis-letter-061102.pdf>

5.4 Thesis evaluation sheet⁹

Assessment Form MSc Thesis Wageningen University

Complete the green fields boxed with a single line. Use a point as decimal sign; the default language is English (UK)

| | | | |
|---|---|----------------|------------------------|
| Name chair group | Landscape Architecture and Spatial Planning | | Fee Percentage per Ch. |
| Name student | | | LUP |
| Registration number | | | Not applicable |
| Study programme | | | Not applicable |
| Specialisation | | | |
| Code thesis | LUP- | | |
| Short title thesis | | | |
| Country (of fieldwork) | 1 | | |
| | 2 | Not applicable | |
| Date examination | | | Signature |
| Supervisor chair group | | | |
| Supervisor outside chair group (if any) | | | |
| Second reviewer/examiner | | | |

Research competence (30-60%) *

- 1 Commitment and perseverance
- 2 Initiative and creativity
- 3 Independence
- 4 Efficiency in working with data
- 5 Handling supervisor's comments and development of research skills
- 6 Keeping to the time schedule

Grading
Mark 1-10

Relative
weight *

40%

| | | | |
|--|--|---|------|
| | | } | 0.00 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Thesis report (30-60%) *

- 1 Relevance research, clearness goals, delineation research
- 2 Theoretical underpinning, use of literature
- 3 Use of methods and data
- 4 Critical reflection on the research performed (discussion)
- 5 Clarity of conclusions and recommendations
- 6 Writing skills

50%

| | | | |
|--|--|---|------|
| | | } | 0.00 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Colloquium (5-10%) *

- 1 Graphical presentation
- 2 Verbal presentation and defence

5%

| | | | |
|--|--|---|------|
| | | } | 0.00 |
| | | | |

Oral Defence (5-10%) *

- 1 Defence of the thesis
- 2 Knowledge of study domain

5%

| | | | |
|--|--|---|------|
| | | } | 0.00 |
| | | | |

* please choose weights such that their sum is 100.

TOTAL 0.00

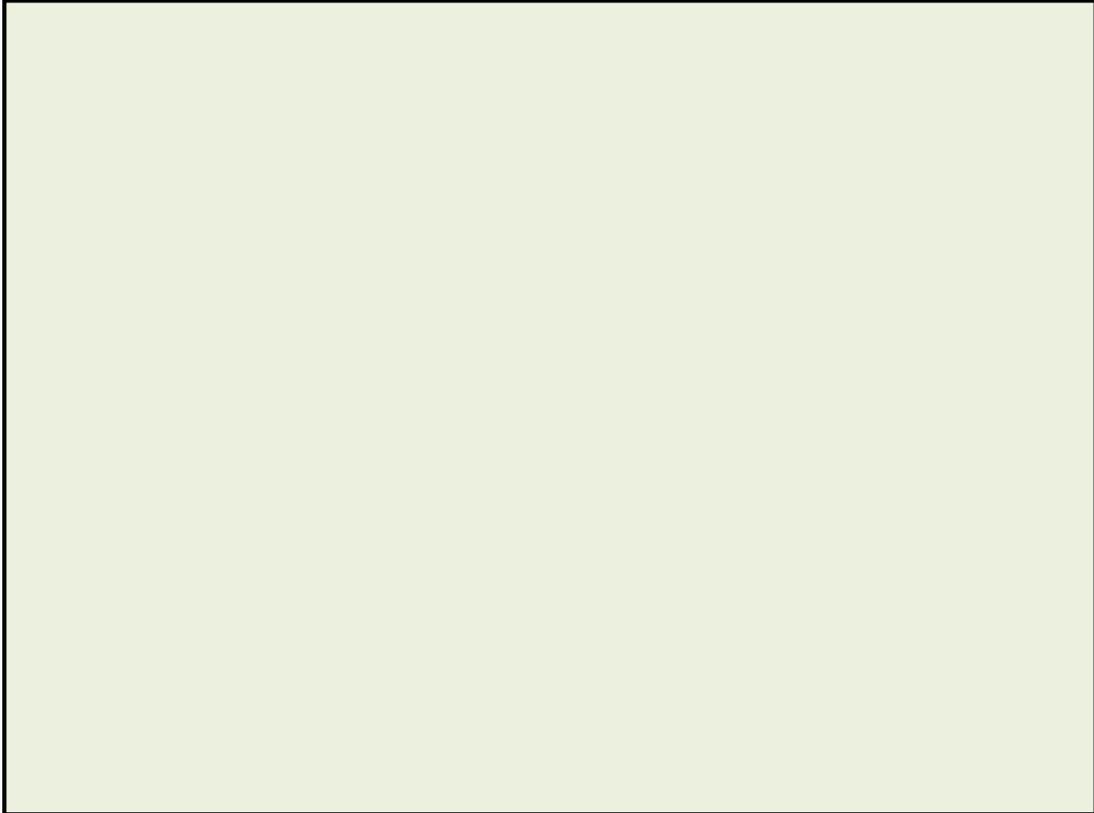
FINAL GRADE FAIL! (partially completed)

Extensive comments by supervisor and 2nd reviewer/examiner on next page

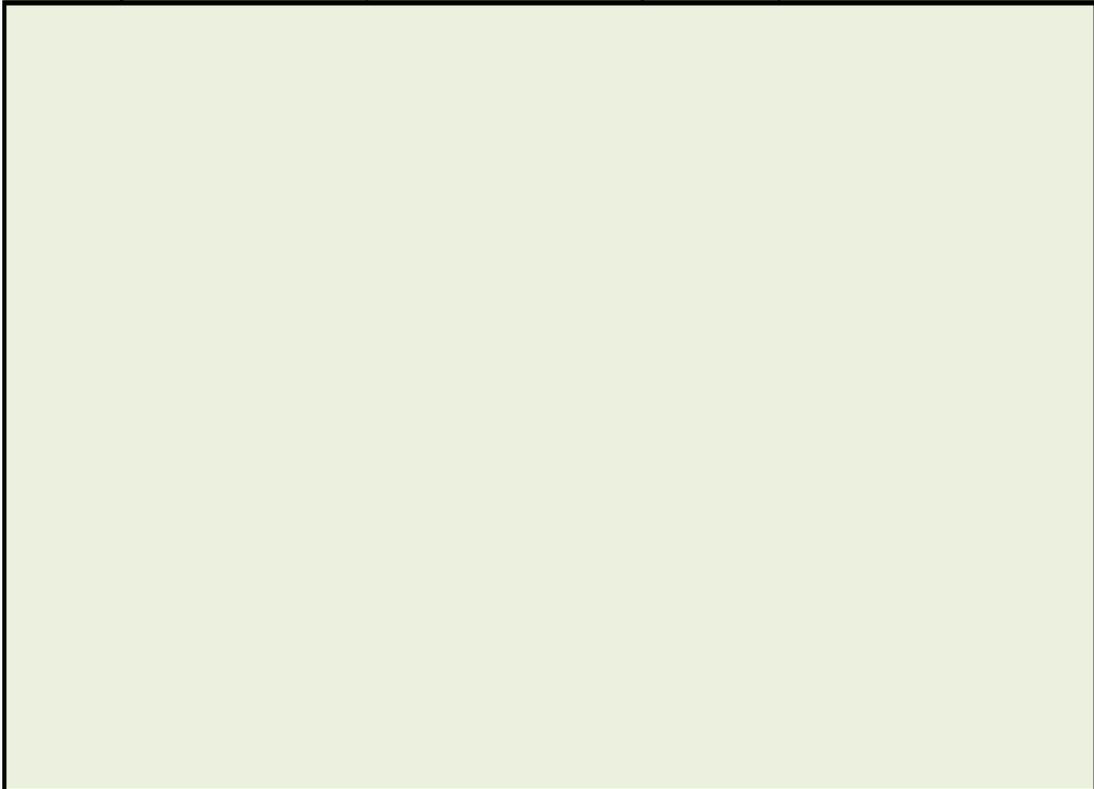
NOTE: this form, including the signatures, needs to be archived for 7 years for visitation purposes

⁹ NOTE: For all LUP-thesis, the fee percentage of the Landscape Architecture and Spatial Planning group should be 55% or more.

Comment by supervisor (Please use ALT+ENTER to open a new line)

A large, empty rectangular box with a black border, intended for the supervisor's comments. The box is currently blank.

Comment by 2nd reviewer/examiner. (Please use ALT+ENTER to open a new line)

A large, empty rectangular box with a black border, intended for the second reviewer's or examiner's comments. The box is currently blank.

5.5 Rubric with the thesis evaluation sheet

Author: Arnold F. Moene, Meteorology and Air Quality Group, Wageningen University

Version: 1.1 (December 15, 2010)

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| 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. Possibly the scientific problem has been formulated by the student. |
| 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 three aspects (experimental work, | Experimental work | 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. |
| | Student is not able to setup and/or execute an experiment. | | | | | |
| | Data analysis | 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 | Student is able to organize the data, perform some basic checks and perform basic | Student is able to organize the data, perform commonly used checks and perform some | Student is able to organize the data, perform thorough checks and perform advanced and |

| Item | Mark for item | | | | | |
|---|---|--|--|---|---|--|
| | 2-3 | 4-5 | 6 | 7 | 8 | 9-10 |
| data analysis and model development) may be relevant and some may be omitted | data. Is not able to use a spreadsheet program or any other appropriate data-processing program. | | are used does not clearly contribute to answering of the research questions and/or he is unable to analyze the data independently. | analyses that contribute to the research question | advanced analyses on the data | original analyses on the data. |
| | Model development Student is not able to make any modification/addition to an existing model. | Student modifies an existing model, but errors occur and persist. No validation. | Student is able to make minor modifications (say a single formula) to an existing model. Superficial validation or no validation at all. | Student is able to make major modifications to an existing model, based on literature. Validation using some basic measures of quality. | Student is able to make major modifications to an existing model, based on literature or own analyses. Validation using appropriate statistical measures. | Student is able to develop a model from scratch, or add an important new part to an existing model. Excellent theoretical basis for modelling as well as use of advanced validation methods. |
| 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 | | | | | |
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| | 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. | Only some possible weaknesses and/or weaknesses which are in reality irrelevant or non-existent have been identified. | Most weaknesses in the research are indicated, but impacts on the main results are not weighed relative to each other. | Most weaknesses in the research are indicated and impacts on the main results are weighed relative to each other. | All weaknesses in the research are indicated and weighed relative to each other. Furthermore, (better) alternatives for the methods used are indicated. | Not only all possible weaknesses in the research are indicated, but also it is indicated which weaknesses affect the conclusions most. |
| | No confrontation with existing literature. | Confrontation with irrelevant existing literature. | Only trivial reflection vis-a-vis existing literature. | Only most obvious conflicts and correspondences with existing literature are identified. The value of the study is described, but it is not related to existing research. | Minor and major conflicts and correspondences with literature are shown. The added value of the research relative to existing literature is identified. | Results are critically confronted with existing literature. In case of conflicts, the relative weight of own results and existing literature is assessed. The contribution of his work to the development of scientific concepts is identified. |
| 2.5. Clarity of | No link between research questions, results and | Conclusions are drawn, but in many cases these are only | Conclusions are linked to the research questions, but not all | Most conclusions well-linked to research questions and | Clear link between research questions and conclusions. All | Clear link between research questions and conclusions. |

| Item | Mark for item | | | | | |
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| | 2-3 | 4-5 | 6 | 7 | 8 | 9-10 |
| conclusions and recommendations | conclusions. | partial answers to the research question. Conclusions merely repeat results. | questions are addressed. Some conclusions are not substantiated by results or merely repeat results. | substantiated by results. Conclusions are mostly formulated clearly but with some vagueness in wording. | conclusions substantiated by results. Conclusions are formulated exact. | Conclusions substantiated by 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. | <i>Textual</i> 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%) * | | | | | | |
| 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 | Spoken in such a way that majority of audience could | Presentation is uninspired and/or monotonous and/or | Quality of presentation is mixed: sometimes clear, | Mostly clearly spoken. Perhaps monotonous in some places. | Clearly spoken. | Relaxed and lively though concentrated presentation. |

| Item | Mark for item | | | | | |
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| | 2-3 | 4-5 | 6 | 7 | 8 | 9-10 |
| presentation and defense | not follow the presentation. | student reads from slides: attention of audience not captured | sometimes hard to follow. | | | Clearly spoken. |
| | 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%) * | | | | | | |
| 4.1. Defense 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. |