Guidelines for Master Thesis in Business Administration

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1. INTRODUCTION

According to many students' experience, thesis writing is the most rewarding part of higher education. These guidelines aim at helping the student in this stimulating task, without taking away from her the responsibility and joy associated with independent, creative work.

Thesis authors are encouraged to read through these guidelines several times during the of the thesis writing process. The guidelines answer many common questions in connection to thesis work. They also treat usual shortcomings of students' theses. Thus, unnecessary mistakes are avoided and both author and supervisor time can be saved, if the author carefully considers the advice presented here.

However, general guidelines cannot suit perfectly for every thinkable thesis writing process. If the author feels that her own work does not fit the suggested structure (or vice versa), she has to trust her own judgement and make suitable adaptations. If substantial deviations from the guidelines' suggestions are considered, or in case of uncertainty, the supervisor should be consulted.

The words "student", "author" and "opponent" in the singular - and always as a "she" - are used throughout for stylistic reasons. In normal cases a master thesis at JIBS should have two authors, and they may certainly be male. Even both of them.

2. LEARNING OBJECTIVES

The student should develop and show personal ability to use scientific theory and methods in order to create and communicate knowledge about a phenomenon of relevance for the sub-discipline in which the student has chosen to specialise. Further, the student should develop her ability to grasp as well as critically yet constructively examine academically produced knowledge.

3. REQUIREMENTS

A master thesis is a much more "academic" work than the average bachelor ("candidate") thesis. In order to reach a sufficient level the thesis must treat a problem within an area in which the student has taken advanced level courses (i.e. a student who has not taken any advanced marketing courses should not write about a marketing problem). The thesis should resemble a *research report* and should thus *not* take the form of a consultant's report. A passed master thesis:

- shows that the student masters theory and method over and above what has been gained from previous courses, and that the student has the ability to use theory and method in order to gain new knowledge about the studied phenomenon
- show that the author has read research and investigations, e.g., books, articles in academic
 journals, and previous student theses that treat the same or a similar problem. The author
 should relate her work to this previous research.

- show that the author has insight about the strengths and weaknesses of her study.
- treat a *general* problem and lead to trustworthy conclusions about this problem. The conclusions of a master thesis hence should *not* concern what a specific actor (i.e., firm) should do in this or that specific situation.

4. THE OVERALL DISPOSITION OF THE THESIS

The thesis should treat a well defined problem. This problem may have been identified, e.g., from questions that arise during courses, from one of JIBS research programs, from the media, or from the author's own experiences. What made the author focus on this particular problem is often revealed in the background section, which precedes the problem statement. What aspects of the problem the author wants to investigate more precisely is stated in the purpose. Given the purpose, certain theories and previous empirical studies become relevant parts of the frame of reference that the author builds as a guide for the continued work. Sometimes the frame of reference suggests that the purpose be clarified or narrowed down further in the form of research questions, which are to be answered by the empirical study. The purpose may also be a guide to what method(s) should be used for data collection and data analysis. In the interpretative analysis the frame of reference and the analysis method are used as tools. The analysis leads to conclusions, that answer the research questions and thus lead to fulfilment of the purpose. Beyond conclusions, the author may want to add a more open discussion of the results, and thus rise again to the level of the more general problem, including aspects that have not been treated by the empirical part of the study..

In this way the thesis should make a logic whole (cf. Figure 1). The author is advised to point by point compare the above with her own plans during the design stage, and with the "almost finished" manuscript towards the end of the process. Excellence in parts can only marginally make up for shortcomings of the overall impression. What the various parts should treat is treated in the next sub-section.

In order to achieve a coherent whole the author should also write with the reader in mind. The reader can be assumed to want

- easy access to what the subject matter of the thesis is, and why that is important
- the thesis to stick to that subject matter, and not make various detours
- the language to be comprehensible, and that it is easy to understand how the author carried out her study
- the parts of the thesis to follow a logic order
- that every parts makes the thesis move forward, towards fulfilment of the purpose
- to know what is the author's own contribution, and what has been borrowed from others
- to be given the possibility to check for herself in principle whether or not the conclusions are valid.

On the part of the author this demands honesty and an ability to stick to the point, e.g., to phase out material that is not central to the thesis. The author easily becomes narrow-sighted it takes some effort to look upon one's own work with others' eyes.

Figure 1 The structure of a thesis

5. THE SECTIONS OF THE THESIS

5.1 Introduction

There is not one particular structure of set of sections that is best for every thesis. The uniqueness of each thesis may be reflected in its disposition. Below you find a set of suggested headings which refer to issues that in most cases should be treated in the thesis, whether in a separate sub-section or not. The issues marked * *should* be treated, and it is often advisable that they be treated under a separate heading.

*Summary; Abstract

*Table of contents

Introduction; Background (etc.)

*Problem

*Purpose

Perspective

Delimitation

Definitions

Methodology; (etc.)

*Frame of reference; theory and previous research (etc.)

Research questions

*Method

Results

*Analysis, Interpretation (etc.)

Conclusions

Discussion, Implications, Recommendations, (etc.), Critique of method

*List of references

Appendices

5.2 Abstract

The thesis should start with an abstract (summary) of $\frac{1}{2}$ - 1 page. The summary should give a clear image of the subject matter of the thesis, method, and main results. The Abstract precedes the Table of Contents and has a unnumbered heading.

5.3 Table of Contents

A Table of Contents *must* be included. All numbered section headings and sub-section headings should appear with the associated page number. Following the Table of Contents, separate lists of tables and figures, with their associated headings, numbers, and page number, may also be included.

5.4 Introduction; Background (etc.)

If there is a separate section with this type of heading, it should be used to introduce the reader to the broader context of the researched problem. Via a "funnel approach" the author takes the reader from this broader context to the narrower issue in the problem statement.

5.5 Problem

The problem statement may be the last part of the Introduction, or it may be placed under its own heading. If the text preceding the problem statement is less than one page, "The Problem" can be used as headline for the entire introduction.

"Problem" in this context does not have the negative connotations it has in every day language. The "problem" treated may well be an "opportunity". The problem statement should make clear what is the *subject matter of the thesis*, and why this topic is worthy of study. A clear statement of the problem is an important ingredient in successful thesis writing. If the author herself is not very clear about what problem the thesis treats, no other strengths of the thesis will make up for that deficiency. The problem statement should guide everything that follows after it. Therefore, the author should make a serious effort to achieve a clear problem statement early on in the process, discuss it with the supervisor, and time and again go back to the problem statement (and purpose, cf. below) when other critical decisions are to be made.

The above does not exclude that the problem statement be revised during the process. The author may learn new things under way, that provide a rational for doing so. If the problem statement is changed it is imperative, however, that the final version of other parts are guided by this new formulation and not coloured by the early detours.

5.6 Purpose

Fulfilling the purpose is what thesis writing is all about. The purpose should logically follow from the problem statement. It should be stated clearly and concisely. The purpose denotes what specific aspects of the problem that the author aims at treating in her investigation.

There are different kinds of purposes. A *descriptive* purpose aims at a description of (some part of) reality. An *evaluative* (normative) purpose aims at telling how something ought to be, e.g., to give recommendations for some party's decisions and actions. An *explanatory* purpose goes further than a descriptive one in terms of an ambition not only to tell *how* something is, but also *why*. Finally, the purpose may aim at *theory development*. The aim is then to develop theory for a phenomenon or class of problems for which no satisfactory theory exists, or to adapt existing theory in order to make it more relevant for some specific purpose. An example would be to elaborate on a more general theory in order to make it more suitable for understanding a particular type of firms, e.g., small firms, retailing firms, or knowledge-based firms.

The delineation between different types of purposes is rarely crystal clear in practice. The above typology may, however, give some guidance. Descriptive and normative purposes suffice for bachelor theses. In a master thesis the purpose should have more of an ambition towards explanation or theory development, whereas the normative ambition can be lesser. It should be stressed, however, that even if a descriptive purpose is normally regarded as a low level purpose, an original and enlightening description may be largely the same as theory development.

The author should avoid vague purposes such as "The purpose of this thesis is to increase our knowledge about....". The purpose should be more precise than that.

5.7 Perspective

This heading refers to whether the problem is studied from a producer or a consumer perspective; from society's, the management's or the employees' point of view, etc. Only as an exception is "perspective" a separate sub-section. Often the perspective taken is evident already in the problem or purpose statements. It is always important, however, that the author herself be clear about the perspective - otherwise the thesis may appear as a random walk. It is therefore useful to write down a "perspective statement" for internal use.

5.8 Delimitation

A delimitation sets the limits for what the author claims to be able to say something about. A good strategy is to choose a relevant title for the thesis, and to use clear formulations of problem and purpose. By telling the reader what she intends to do, the author also tells us what she does not claim to do (if you give it some thought, you will very soon find that a list of what you don't do in the thesis is very easy to expand). Hence, a separate delimitation section is generally not a must. Sometimes, however, there is reason to separately point out some consideration which the reader cannot be assumed to understand the consequences of all by herself. If this can be suspected, clearly stating such a delimitation makes the work more valuable to the reader.

5.9 Definitions

The reader can be assumed to have a grasp of theory and method equalling what the author had before starting the thesis work. Concepts etc. which can be assumed to be familiar therefore do not have to be defined. Conversely, it is important that concepts that can *not* be assumed to be familiar be carefully explained - otherwise the reader may lose interest or become frustrated. Concepts that are central to the thesis may need explicit definitions. This could concern concepts that are used in a more precise way than in every day language, or concepts that are given differential definitions by other authors. Explicit definitions can be given sequentially as the concepts occur in the text, or be gathered together in a separate subsection. This concerns theoretical definitions. Operational definitions, i.e., how some concept has been measured in the empirical study, are given in the method chapter.

5.10 Methodology

At several universities in Sweden it has become usual that the "Method" part of the thesis takes the form of a "miniature textbook on the philosophy of science". The standard version is an on-the-surface discussion of "positivism contra hermeneutics", often with little connection to the thesis as a whole. Still worse, this has often been so at the expense of a comprehensive description of - and rationales for - the empirical method(s) used in the thesis.

The author of a master thesis should have a good command of major schools of thought in the philosophy of science, and related matters. She should also know, however, that a) the concepts "positivism" and "hermeneutics" are certainly not a complete list of scientific ideologies, b) these concepts are filled with (partly) different content by different authors, c) that in research in practice, purely positivistic or purely hermeneutic approaches are rare

indeed, and d) that this may be a good thing, as the endpoints of a scale of scientific ideologies may be about as attractive as the endpoints of a political right-left scale...

What we demand of the author is methodological insight and reflection. That is, she should be able to discuss her chosen approach in these terms. The authors should also be able to give satisfactory answers to such questions during the defence. If there is a separate section of this kind in the thesis it is not necessarily the case that it should be part of the Method chapter. Such issues can be treated earlier, and there may also be reason to revert to them towards the end of the manuscript.

5.11 Frame of Reference

The author should study theories and previous studies and create from that her own frame of reference for the empirical study. The frame of reference guides both design and analysis of the empirical study. It is not always a good idea to make "Theory" and "Previous Research" separate sections. Often theory is a result of previous empirical research; in other cases the relevant previous research also uses (in part) the same theories the author wants to refer to. If so, it is advisable to integrate these issues. In other cases the author wants to apply theories that have previously not been used in the same context, while previous empirical studies based on other (or no) theories also exist. Then it is more natural to treat theory and previous research as separate issues before the author makes her own integration. Besides theory and previous research, the frame of reference may also comprise industry-, firm-, or region specific information if such is not satisfactorily covered in the Introduction already.

Examiners put great emphasis on the student's ability to use theory as a tool for creating and communicating knowledge. Theory can be used fruitfully in at least three different ways:

- 1. The thesis aims at *theory testing*. In such cases the theory is more or less the "subject matter" of the thesis, and the choice of theory determines to a great extent the design of the study and what the conclusions should concern.
 - 2. Also in other cases than pure theory testing, theory may be used for *design of the investigation*.
 - 3. Theory can be used for *interpretation* (sense making) of empirical observations (data).

Student theses that apply a strict theory testing approach are rare. Most theses of high quality use theory according to p. 2 and p. 3. The theory that is used for design should of course also be used for interpretation. Sometimes, however, data are not easily made sense of from the theoretical perspective originally chosen. Other theories may then be introduced in the analysis. This is perfectly OK, as long as the true nature of the process is disclosed to the reader. The author should not give the impression that the design of the study was guided by a theory, the usefulness of which was not realised until after the data were analysed.

Theory is not the opposite of reality, and not the opposite of practice. All of our goal-directed behaviour is governed by some kind of theory about the workings of the world. If I walk to the street hawker in order to buy a newspaper, I do what I do because I have an experienced based "lay theory" which says that if I walk this and that street and make turns at specific corners, I

will eventually get to the street hawker, and from him I may buy the evening paper I was after. But this is not a *fact* until I really went there, paid, and received my paper. In principle, delivery could have been late, or it might have been a public holiday which I had forgotten, the hawker might have stopped trading, etc. Nevertheless, the imperfect theory is much more useful than random behaviour if I really want a paper. And if no form of theory should guide guide action, random behaviour is the only alternative (unless we accept "nothing in the world is predictable" as a theory - then there is *no* alternative).

Like lay theories, scientific theories are useful tools that can be used for reaching goals. Like lay theories, scientific theories are based upon experience. The difference is that the experience that the scientific theory is built upon was systematically collected and/or analysed (on the other hand, the experience is less direct). A lot of work by clever people has in most cases been invested in a scientific theory. The author should therefore be *respectful* towards such theories, and not disregard them until she is certain she has a better alternative. She will always use *some* theory (cf. above) even if it happens to unconsciously, and even if the theory in question rests on non-systematically collected and/or analysed experience.

Something which should definitely be avoided is to base the design and interpretation on "common sense" (i.e., the author's unconscious lay theory) and *thereafter* "hang in" some textbook theory in order to "please the supervisor". Supervisors tend not to be pleased by that approach.

Theories must be simplifications of reality! When a theory fits perfectly with a specific case, it is no longer a theory but an idiosyncratic description of little use for understanding other cases. A useful theory must abstract and generalise, and thus neglect many of the fine details. This means that a theory in the form the student meets it in a book may not be the perfect tool for the chosen problem, but parts of it may still be a useful tool. The author should therefore also be "respectless" towards theory, in the sense that she must be prepared to make adaptations, and to combine different theories. Using theory is not an excuse for not thinking for oneself!

It is required that the author studies previous published research within the problem area, and that she organises and summarises the main themes of this research in the frame of reference. The value of the thesis and the credibility of its conclusions are leveraged when related to the results of previous studies.

The two main ways of finding relevant previous studies are:

- database and conventional library search, using relevant (combinations of) keywords.
- study of the references of the first studies you encounter.

A third way is to ask the supervisor. This may be a good source early in the process, but it should not be overused. Writing a master thesis is independent work. A fourth way to find references is various databases on the INTERNET.

When writing about previous research the author should show some ability to judge the quality of the studies and give more weight to studies of high quality.

5.12 Research questions

It is in some cases useful to further specify the (empirical) purpose in the form of specific research questions. This may be done either before or after the frame of reference is presented. Specific research questions should be mirrored by specific conclusions towards the end of the thesis.

5.13 Method

The role of method in thesis work

If theory is one major tool in thesis work, method is the other. Method is the tool used for fulfilling the purpose by means of an empirical study in a scientifically satisfactory manner.

Showing ability to chose appropriate methods, and ability to use them in fruitful ways, are among the most important competencies the author should demonstrate to the reader. Choices of method are made at different levels. Firstly, the choice of methods implies that the author takes a stand in terms of basic *philosophy of science* issues (cf. 5.10) This should be done consciously; the author should be able to defend her conviction that meaningful knowledge about the problem in question can be gained with the chosen methods. On a somewhat lower level, a choice is made in terms of *approach*. This refers to choices between qualitative vs. quantitative approach; longitudinal vs. cross-sectional approach. The approach given, there are choices to make concerning specific *methods*. In-depth studies may be carried out, e.g., by means of personal interviews, participant observation, or - as is often suitable for case studies - a combination of various data collection methods. Quantitative studies may be designed as laboratory experiments, field experiments, or various forms of questionnaire-based surveys. On an even more detailed level there are method choices to make in terms of *techniques*. Examples are different principles for drawing a sample, designing a questionnaire or interview guide, specific scaling techniques, and various analysis techniques.

The author should expect devoting a substantial amount of time to independent study of method over and above what she has learnt at previous courses or the "method support seminars" that may accompany the thesis work. There will be little need, however, for inventing one's own methods. As far as development of methods are concerned, a great deal of effort by capable people has already been invested. When thesis authors come up with their own inventions, the reason is often ignorance.

The systematic application of method for data collection and analysis makes it possible to achieve the following virtues:

- comparability
- generalisability
- objectivity
- depth
- originality

Different methods have different strengths and weaknesses in these respects. They are also more or less relevant for different purposes, and the emphasis put on them varies with different schools of thought in the philosophy of science. These issues are treated at length in

method textbooks and will not be repeated here. Requirements that always apply, however, are:

- that the author should apply well-developed, systematic methods both for data collection and for data analysis
- that the chosen methods, as applied in the thesis, should make it possible to reach other conclusions than what the author believed in at the outset
- that there should be a match between method on the one hand, and problem, purpose and available resources on the other. Further, choices concerning data collection should match choices concerning analysis; i.e., the analysis should be anticipated when the empirical study is designed.

The Method section in the thesis

The method section in the thesis should comprise a straightforward description of how the empirical work has been carried out. It should not be a "miniature textbook on various methods", where general pros and cons of specific methods are discussed with little reference to the author's own empirical task. Strengths and weaknesses that are relevant with regard to the purpose shall of course be discussed. Most of the method part thus deals with the method the author has chosen. Other, alternative methods are discussed only in order to build a rationale for the choices the author has made. Methods that are clearly unsuitable for the purpose do not have to be mentioned at all.

The author should note that both methods of data collection and *data analysis* should be described and rationalised.

The description should be detailed enough to make it possible (in principle) for the reader to replicate the study. In order to avoid that the method section becomes too long, some of the illustrative materials may be put in appendices (questionnaire, interview guide, etc.).

5. 14 Results

The empirical part of the report may - but does not have to - start with a relatively "pure" reporting of empirical results. This may take somewhat different form depending on what kind of approach and data collection method have been used. If the study is hypothesis testing, "Results" would report some statistical tests that logically follow from the stated hypotheses. For descriptive purposes it would mean the reporting of descriptive data. In investigations with a more qualitative orientation, the closest equivalent would be narrative case descriptions or interview summaries. The common theme is that the style here would be concise and directed towards sheer description; not deeper interpretation. A common mistake is that the author wants to give too much descriptive information that does not really answer the research questions (too many tables; too long case descriptions).

5. 15 Analysis; Interpretation (or the like)

A master thesis should be characterised by a deep and creative analysis. Often "Results" and "Analysis" are combined, i.e., comments, interpretations and reasoning accompany the results as they are presented. This may be followed up by a more overall kind of integrative analysis towards the end of the section.

In the analysis the concepts and models introduced in the frame of reference should be used in order to throw light on the empirical observations the author has made. Further, this should be done in a systematic manner, i.e., by application of the analysis method(s) chosen in the method section. Important building blocks of a high quality analysis thus are a) links to established theory, and b) a systematic approach. The analysis should also be logically organised and stick to the issues of the purpose and research questions. "Systematic" often refers to systematic *comparison*; between empirical groups or cases, between theory and empirical "facts", between interpretations from the perspective of different theories, etc.

However, systematic approach and use of theory alone do not guarantee a really good analysis. Achieving that requires also the ability to see beyond what is evident (i.e., evident in the light of theory and with a systematic approach). Such ability is partly based on inherent talent, but to an even greater extent it's a matter of time and inspired effort. The author has to *think* a lot about her results, penetrate the issues, and perhaps not accept the first possible interpretation. What do the results *really* imply? How *else* can they be understood? If the author devotes a lot of time and real interest to approach the empirical material from several different angles, and if she has made sure there is enough time to let the thoughts grow in the back of her mind, she is likely to squeeze out much more of her investigation than if a prepared analysis plan were strictly followed and if the analysis were compressed in time.

Therefore: devote enough time for the analysis work! This is often where thesis authors fail to make their own work full justice.

5. 16 Conclusions

It is often suitable to summarise the output from the analysis in terms of a number of conclusions. If a number of research questions have been specified, it is often advisable that one conclusion mirrors each research question. The "Conclusions" section should be concise; rarely more than one page long. The uncertainty associated with the conclusions are only communicated by means of expressions like "...when weighing the evidence, it appears relatively more likely that...", "...the most reasonable interpretation is...", etc. More elaborate "academic hedging" belongs elsewhere, e.g., the Method, Analysis, or Discussion sections.

5.17 Discussion

The Analysis and Conclusions sections should deal almost exclusively with the author's own empirical data in relation to purpose and research questions. Just like a "funnel approach" is used in the early part of the manuscript, a reversed funnel approach may be applied towards the end. That is, the author may feel she has learned more during the process than can be communicated through the reporting and interpretation of empirical observations, and she may want to share this knowledge, too. It is perfectly OK to do so. In fact, it may substantially increase the value of the thesis. In order to separate the more systematic and empirically based from the more speculative thoughts, it is good to reserve the latter kind of "findings" for a separate "Discussion" section.

The discussion may also concern implications from the results for different types of economic agents who have some interest in the studied problem (firms, policy-makers, unions, consumers). Alternatively, they may concern how future studies should be carried out in order

to reach further, or thoughts concerning the applicability of the conclusions for other countries, industries, etc. As mentioned above, the author should show awareness of methodological questions and of strengths and weaknesses of her own investigation. It may be useful to return to such issues towards the end of the manuscript, after the analysis. In a critique of one's own investigation, it is important *both* to admit weaknesses *and* to call attention to strong points.

5. 18 References

All works that are quoted or cited in the text should be collected in a list of references. All references should be in *one* alphabetically ordered list. That is, no separate lists for books, journals, etc., should be compiled. However, the specific *format* differs between different types of publications.

For references to *books and research reports* the following information should be given in the following order:

- Author's name and initials. Two authors: the authors' names are separated by an &. Three or more authors: all authors but the last two are separated by commas; the last two by an &.
- If the book is edited (an anthology) the *editor(s)* is treated as author, followed by (Ed.) or (Eds.), respectively.
- Year of publication within parentheses, followed by a full stop.
- Full title in italics, followed by a full stop.
- Edition (if other than first) within parentheses.
- Place where the work was published, followed by a colon.
- Publisher.
- If the reference concerns a chapter in an edited book, the reference goes as follows: a) chapter authors, b) chapter title within citation marks, c) the word "In", d) editor(s)' name(s), e) Ed(s). within parentheses, f) full title in italics, place, and publisher.

Examples:

Davidsson, P. (1989). Continued Entrepreneurship and Small Firm Growth. Stockholm: The Economic Research Institute.

Davidsson, P., Lindmark, L. & Olofsson, C. (1994). *Business Dynamics in Sweden*. (2nd ed.) Lund: Studentlitteratur.

Davidsson, P. (1994). "The Lay Image of the Entrepreneur". In de Geer, H. (Ed.). Creators, Conmen and Crooks: the Image of the Entrepreneur in Arts, Literature and Film. Stockholm: Timbro.

For references to *journal articles* the following information should be given in the following order:

- Author(s)' name(s) and year of publication as with books
- Full title of the article, *not* in italics.
- Title of the journal in *italics*.
- Volume and pages.

Example:

Davidsson, P. (1989). Entrepreneurship and After: a Study of Growth Willingness in Small Firms. *Journal of Business Venturing*, 4, 221-246.

(some of the examples above are partly made up, i.e., they are not genuine references to existing publications).

5. 19 Appendices

Information that is not central but nevertheless valuable to the reader may be given in appendices. This might concern background information (about the region, the industry, the firm), or details about method (interview guide, questionnaire, analysis of non-response), additional descriptive results that do not directly answer research questions).

6. ETHICS IN THESIS WRITING

When an author collects data from individuals or firms, it is essential that she makes clear that the finished thesis will be public. In surveys the respondents are normally guaranteed confidentiality in an introductory letter. It is the author's responsibility to fulfil any promises given. If an informant of any kind during or immediately after, e.g., an interview expresses the wish that the information be presented anonymously, the author has the responsibility to respect that wish. If an author wishes to work with data that cannot be made public, she should immediately consult her supervisor.

Firms are often willing to share with thesis authors such information that they would normally not want to share with their competitors or with the public. Unfortunately, there are the rare cases when thesis authors have abused this fact for personal gain. This should be strictly avoided. Conversely, a firm or organisation that financially supports the thesis work may try to abuse the authors ability to obtain information from competitors. The author should refrain from being used in such a way, and consult the supervisor if in doubt.

The thesis author has copyright according to Swedish copyright law. The fact that the thesis is used for obtaining academic credits, however, imposes certain restrictions in her exclusive right to the manuscript.

7. FINANCING THE THESIS WORK

The main rule is that the student herself has the responsibility to finance the thesis work, including costs for data collection and printing. If external sources of finance are opted for, it may be a good idea to approach local, regional or national authorities, or organisations such as unions, The Chamber of Commerce, The Swedish Employers Confederation and suchlike, rather than individual firms. This is because a master thesis should treat a problem of general interest rather than solving a specific party's problem. This does not exclude the possibility that financial backing from an individual firm may be made compatible with writing a thesis that meets the academic requirements.

If the author wishes to write a thesis on a problem that falls within the domain of a current research program at JIBS, the school itself may be willing to cover direct costs. Such decisions are taken by the professor responsible for the research program in question.

8. WRITING CONVENTIONS

8.1 General

Writing conventions are there to make the job easier for readers, opponents and examiners. They also help the author to be consistent and thereby make her work full justice. Some writing conventions have been dealt with above (e.g., how to compile the reference list). Others follow below.

8.2 Printout

A dummy cover sheet is displayed in Appendix 1. Immediately after the cover should follow a white page with the same contents as the cover sheet, plus information about supervisor and extra examiner on separate lines below the author's name.

The thesis should be printed in A4 format, be single-spaced, and use 25 mm marginals left/right/top/bottom.

The typeface should be Agaramond 12 points, or Times New Roman 12 points (which this text is written with). If neither of these typefaces are available, a similar one should be chosen.².

Avoid separating heading from text at page breaks, or that a new page begins with the last line of a paragraph. Use the speller check before printing. Automatic speller check does not, however, make the whole job. The author should carefully read through the text and correct any errors or omissions.

8.3 Headings and paragraphs

The following conventions should be adhered to for different types of headings:

1. CHAPTER OR MAIN SECTION

1.1 Section heading within chapter/main section

1.1.1 Sub-section heading or 1.1.1 Sub-section heading.

1.1.1.1 Even lower level heading

NB! Only the first two levels have to be numbered. All numbered headings should appear in the table of contents. Avoid using more than four levels of headings.

Chapters/Main sections are separated by new page or double blank lines. Lower levels are separated by a single blank line above, and one below the heading.

² These instructions may be changed. Templates are under development and will be available in Word for Windows - Archive - New. Try "IHH_RPTE" or "JIBS_RPTE" - or ask your supervisor.

If there are sections within a chapter/main section, *all* text within the chapter/main section should be placed under a section heading, including the main section introduction. If three digit headings appear within a section, the equivalent applies. This means that a main section may start as follows:

1. CHAPTER/MAIN SECTION HEADING - blank line - **1.1 Section heading** - blank line - *1.1.1 Sub-section heading* - blank line - text. Exception: chapter summaries in italics (a few lines) may appear under chapter heading and before the first section heading.

Paragraphs should be separated by one blank line. Paragraphs should not be too long, rarely exceeding 1/2 page.

8.4 Tables and Figures

All tables and figures should have a numbered heading. The numbering may be running through the whole thesis (Figure 1, Figure 2, Table 1, Table 2) or running within main sections (First figure in section 5 is Figure 5.1 and so on.).

Tables and figures should have such a heading and other information that they can be understood without consulting the main text.

There should be at least one explicit reference in the text to each table or figure.

Table headings appear *above* the table, whereas figure headings appear *below* the figure. One blank line should separate the heading from the table/figure. 1.5-2 blank lines should separate table and figure headings from the main text. The headings should have the following format:

Table 1 Sample and response rates

Figure 1 A tentative model of the relationships between external factors and growth

Table or figures should never introduce a new chapter or section.

If the number of tables or figures is large, the author is advised to include a separate list of Tables (Figures) immediately following the Table of Contents.

8.5 References and citations

References in running main text should be given according to the Harvard-system (author, year). If there are two authors, both surnames separated with an & are given. If there are three or more, only the first author plus *et al* is mentioned. There are two main varieties of references in running text, depending on how the reference is integrated into the text:

[&]quot;...In a recent study, Davidsson et al (1994) found that small firms created seven out of ten new jobs."

[&]quot;...According to a recent study, small firms in Sweden create seven out of ten new jobs (Davidsson *et al*, 1994)."

References should always be given for pieces of facts, specific claims, and reasoning that the author borrows from somebody else. References are not needed for generally accepted knowledge or widely held views, or for basics that can be found in any textbook on the subject, especially when it is difficult to pinpoint the original source. It may be difficult to draw the line here, but a typical example would be reference to "the model of perfect competition" in economics, or the "four P:s" in marketing.

In the early part of the thesis (Introduction, Problem) references need not be given if the author makes a more elaborate reference later in the thesis (e.g., in the Frame of Reference).

Citations should be exactly correct and accompanied by reference to source and page number. Longer citations should be a separate, indented paragraph in *italics*, as in the following (partly faked) example:

Our analysis of gross dynamics in Chapter 5 showed that small firms created 45.3 per cent of all new jobs. At the same time, this category was responsible for only 30 per cent of the stock of jobs. The present analysis shows that in net terms this category's overrepresentation as job creators is even greater. No less than seven out of ten net new jobs originate in small firms. (Davidsson et al, 1994, p. 164)

8.6 The length of the thesis

If the author is knowledgeable enough about the subject matter, writing a long thesis is very easy. The art is to write short, yet informative. A standard scientific article in a journal, which reports on a more comprehensive empirical study than does a master thesis, is normally 10-25 pages long. Thesis authors have more space than that, but should make an effort to be concise. It is difficult to give a meaningful quantitative criterion, but the following may serve as rules-of-thumb:

- The effort behind the thesis is not signalled via the number of pages produced, but by the quality of the finished thesis.
- The final version should be shorter rather than longer than the "almost final version".
- The main text in the final version should normally not exceed 16 000 words (ca 40 pages) and may well underscore this number with a margin.

9. SEMINARS AND SUPERVISION

Supervision is normally given for groups of 4-8 author who share the same supervisor(s). Expect about four such seminars during the process. *Participation in the seminars is mandatory*. During the seminars the author receives feedback from the supervisor and from the other students. Apart form group supervision, the author may also have individual supervision by appointment with the supervisor. On such occasions, the author should come to the meeting well equipped with specific questions. The author may of course also seek advice from other faculty, but should not expect that everybody is always prepared to devote time to her work. The author should refrain from consulting the supervisor on issues that could easily be resolved by means of independent study.

10. FINAL SEMINAR, OPPOSITION AND DEFENCE

10.1 The final seminar

At the final seminar the author first makes a short presentation of her work, and - if needed - makes clarifications and corrections. After that, the opponent leads the seminar. The final seminar is about 60-90 minutes long, with the following approximate distribution of the allotted time:

- Presentation and clarification by the author, 10-15 min.
- Opponent-author dialogue, led by the opponent, 40-60 min.
- Questions and comments from the audience, 5-15 min.
- Supervisor's summary, evaluation of the opposition and (preliminary) evaluation of the thesis, 5-10 min.

10.2 The opposition

The opponent has the responsibility to ascertain that the purposes of the seminar are fulfilled, by means of a dialogue with the author. These purposes are:

- that the seminar becomes an additional learning event for the author, the audience, and the opponent herself, as regards the art of evaluating works of research, and
- that the author receives in-depth feedback, in addition to that given by supervisor and extra examiner,

The opposition should be constructively critical. This means that strengths *and* weaknesses should be discussed, and that the opponent should be prepared to suggest alternative approaches, interpretations, etc., as regards the criticised aspects of the thesis. It also means that the critique should be presented in a dialogue with the author.

What the opponent should focus upon mirrors what the author should focus upon according to the guidelines above. A fundamental issue is that the opponent should **not** go through the thesis page by page. Instead, most of the allotted time should be devoted to discussing the thesis as a whole and to the specifics which according to the opponent are critically important in an evaluation of the thesis as a whole. This often has to do with how the different parts of the thesis are connected to each other. Figure 1 may therefore be a good guide also for opponents. An example of an outline for an opposition is given below:

- 1. Short commentary/discussion about the relevance of the topic/problem
- 2. Discussion about fundamental issues. Does the manuscript stick to the problem/purpose/research questions? Is there an internal logic? Is the choice of method suitable given the purpose? Does the author develop a frame of reference that is a good tool for fulfilling the purpose? Is the author aware of the consequences of the critical choices she has made? Is she aware of the major strengths and weaknesses of her work?

- 3. If there is time: discussion about details not previously treated.
- 4. Concluding evaluation.

An opponent who is overly enthusiastic and has no points of criticism signals that she has not been able to penetrate the author's work and does not help the author to gain new insigths. An opponent who tries to "kill" the thesis is no more constructive. Other common mistakes are to devote too much time to minor issues, and to fail to listen to the author's responses and thereby to create a lively dialogue.

10.3 The defence

A fundamental insight for the author: nobody knows the work better than the author and she has therefore an enormous advantage. The author who realises this will find it much easier to avoid blocking nervousness and thus to make herself and her work justice during the defence. A second fundamental insight for the author is that her work *does have* shortcomings that are worthy of criticism. If this is accepted it is much easier to avoid an unfruitful hedgehog defence with emotional outbursts.

The author should try to anticipate points of criticism and go through shortcomings as well as strengths for herself in advance. It may be advantageous to ask for a fellow student's opinion beforehand, as it is very difficult to judge one's own work.

A strong defence is characterised by the author's showing that she *has* given thought to the issues brought up by the opponent, and that she has handled them by carefully considered choices, reservations in the text, etc. When the opponent is plain right the author should admit that rather than putting up a weak defence.

11. EVALUATION AND GRADING

What the examiners focus upon in evaluation and marking the thesis should be clear from the above section, and from these guidelines as a whole.

The evaluation is made by the supervisor and an extra examiner. They take a joint decision as regards the mark.

A master thesis is marked Failed, Passed, or Passed with Distinction. Apart from these formal marks, the evaluation may read Passed subject to satisfactory corrections or the like. This means that a mark is not given until the author has made the corrections - or finally failed to do so.

The mark Failed means that the thesis work as a whole is failed. In order to achieve the Master degree the author thus has to write an entirely new thesis. This mark is likely to result only in either of the following situations: a) the author is found guilty of fraud, e.g., substantial plagiarism or fake data (which would probably also lead to other disciplinary action), and b) that the author fails two times to come up with satisfactory corrections when such have been asked for.

In order to have the mark formally registered the author also has to participate actively in the seminars (including acting as opponent at a final seminar and other opposition according to requirements specified for that seminar group). The author should also submit information to the thesis catalogue at the "Studerandeexpeditionen" (see Appendix 2). When the final version of the thesis has been printed, five copies should be left at the "Studerandeexpeditionen".

GOOD LUCK!