

Guidelines for the Writing of Scientific Work

at the

Institute of Technology and Innovation Management Hamburg University of Technology

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1. Foreword

This manual aims to guide students in the writing of seminar papers, *Project-work* and *Master Theses*, at the Institute of Technology and Innovation Management. The manual contains obligatory rules for scientific writing (outlined in **Heading 2, "Rules"**), and additional guidelines (**Heading 3 onwards**) which will help you in the writing of your paper.

2. Rules for Project-work and Master Theses

The following points should be kept in mind while writing scientific work at the Institute of Technology and Innovation Management:

• Formatting:

Text Size: Text: 12 pt Times New Roman; Footnotes: 10 pt Times New Roman;

Spacing: 1.5 lines (Text); 1 line (Footnotes)

- Footnotes should be consistently numbered
- **Numbering:** Outline, List of Figures, Appendix and List of Abbreviations with Roman Numerals, Normal pages with Arabic numerals
- Project-work and Master Thesis need to be bound
- **Tables and Figures** have to have their source mentioned, and should be consecutively numbered
- Citing is of highest importance, no plagiarism of any kind is permitted
- Literature References

All the sources of citations used (and only the ones that have actually been used !!!) should be listed in this section

3. Foreword to "Kür"

The following guidelines are only meant as hints to help students to write scientific work. Only the guidelines mentioned under heading 2 are mandatory. In case of doubt or if you have any important questions regarding interpretations, please contact the Assistants at the Institute. Suggestions and criticism regarding unclear guidelines are always welcome. Further suggested material on the writing of scientific work has been provided in Section 12.

4. General Procedure for writing a Project-work or Master Thesis

- Choice of a topic either from the institute's list of *Project/Masterthesis* (<u>www.tu-harburg.de/tim</u>), or through submission of your own suggestion regarding the topic to an assistant at the institute. Suggestions regarding the topic should fall within the research interests of the department (for further details on research interests, please see our Homepage).
- 2. Literature review based on guidelines provided by the assistant
- 3. Narrowing in of the problem to be addressed, and formulation of a preliminary structure
- 4. Registration at the Examination Office
- 5. Working together with the assistant
- 6. Submission of work before the set deadline

5. Hints for Organization of Scientific Work

A *Project* or *Master Thesis* entails working on a problem using scientific methods within a given period of time. To avoid running out of time it may be prudent to observe the following guidelines:

- The collection and evaluation of scientific literature is an important phase of scientific work. Therefore, it is advisable to start your work by beginning to read related literature. However, do not get nervous if the first days (or even weeks) do not bring any visible result in the form of manuscript-pages. The topic should be narrowed in as soon as possible to selectively read literature.
- In the beginning of the following phase, experiences and ideas should be condensed and consolidated into an outline.
- It is strictly advisable to familiarize yourself with any required text editors, graphic programs, or applicable statistical programs. Enough time should be made available for the final correcting and formatting of the work.

6. Literature Research

Please take your time to search for the required literature for your topic. Before you start out with the literature review think about the topic, keywords, synonyms and other concepts related to the topic. (You can use the following databases: GBV-Katalog, Abi Inform (Proquest), WISO I and II; these databanks are available at the Hamburg libraries). For further information please ask a librarian.

A *Seminar-paper*, a *Project* and most importantly, a *Master Thesis* is not the reproduction or compilation of already-submitted scientific articles. You are expected to choose the scientific literature and to group them by the different perspectives they take. This initial work helps you identify gaps and discrepancies in the scientific literature for you to start on your work. The literature research and evaluation should span the internationally available English literature. Other sources (e.g. speeches or interviews) can also be used. Such sources should be documented in a section "Special Sources" at the end of the section Literature References.

7. Formal Guidelines

7.1 Fonts and Scripts

A Master Thesis should have an extent of **approximately** 60 pages. This excludes the outerand inner title page, the index and lists of abbreviations, figures and tables. The **font size** should be 12 pt in Times New Roman script. Footnotes should be added in 10 pt (Times New Roman).

The whole work should be printed on white printing paper (DIN A4), single-sided.

7.2 Spacing, Page Arrangement and Numbering

Spacing should be 1.5 line (18 pt) for text and single (12 pt) for footnotes.Paragraphs should be separated by a blank line; a tabbed first line is not enough.Justification for text and footnotes is desirable. Usage of automatic-hyphenation is not advised, as it may lead to wrong or non-aesthetic spacing.

The left **page margin** should be set to 5 cm, the right margin to 1.5 cm (Binding and notes). The upper margin should be 3 cm (page numbers can be placed on top), and the lower margin 1 cm.

The pages with Structure, lists of figures, attachments and abbreviations should be **numbered** with Roman numerals. The Arabic numerals begin with the first page of text. The numbers should be placed in the *center* of the *top* of page. The Arabic numerals, unlike the Roman numerals, can be placed between two horizontal lines. (e.g. -37- or VII).

7.3 Spelling and Punctuation

Spelling and punctuation are extremely important and should be taken care of.

7.4 Copies, Binding and Submission

The *Project/Master Thesis* and *Seminar* report should be submitted in printed form in duplicate along with a copy as a MS Word file (figures as Power-Point slides) on a labelled disk/ CD (name, telephone number, matriculation no., course of study, semester and topic of present work). The submission should be made before the deadline.

The report should be printed in DIN A4 format, bound for *Project/Master Thesis* and clipped together with filing clips for a *Seminar report*. While choosing the type of binding, it should be kept in mind that it should be convenient for the reader to turn pages while reading. A binding should be chosen so that it does not get easily damaged. Usually, a *Seminar report* should not be bound. It should be submitted in duplicate, punched and filed, to the assistant.

8. Structure of the Paper

8.1 Elements of the Paper

Project and *Master Thesis* consist – in the given order – of the following parts: (For a *Seminar report*, leave out parts 1, 10 and 11.)

- 1. Blank page
- 2. Title page (not-numbered) see Enclosures I and II
- 3. Abstract (numbered with Roman numeral)
- 4. Index (numbered with Roman numerals -continued-)
- 5. List of figures (numbered with Roman numerals -continued-)
- 6. List of abbreviations (numbered with Roman numerals -continued-)
- 7. Text (Arabic numbering)
- 8. Attachments (Arabic numbering -continued-)
- 9. Literature References (Arabic numbering -continued-)
- 10. Honorary Declaration (not-numbered) see Enclosure II
- 11. Blank Page (not-numbered)

8.2 Introduction

A **possible sequence** for introducing the paper can be as follows:

- 1. Introduce the problem and the implications
- 2. Relate the problem to your course of study
- 3. Define the most important expressions
- 4. Define the topic and relate it to the reason for undertaking the work
- 5. Explain the aim and the approach taken

The structuring principle "From the general to the specific" should be used for the introduction.

The importance placed on the introduction -in contrast to the main body- is usually too low. The problems to be addressed are to be termed as problems and need to be clarified in their importance and magnitude. The connection to other circumstances which are not or only marginally mentioned in the report needs to be highlighted. The splitting of problem-bundles into separate ones and a discussion how these can best be addressed also is part of the introduction.

8.3 Conclusion

A *Project* or *Master Thesis* should have a concise conclusion. The problem being dealt with in the paper should be taken up once more. It is important to note that it is more important for conclusions that you draw from your work, to have substance, rather than completeness. The results can be presented here in an order that differs from the one used in the main text, if that helps making the results more lucid. The introduction and conclusion of the work should allow a reader familiar with the topic to grasp with ease the purport of the work.

8.4 Table of contents

The Table of contents should act as a source of first information for the reader about the fundamental content of the work, and should also make clear the logical construction ("the red thread") of the report. The following points should be kept in mind while structuring the paper:

Qualitative Requirements: The Index should

- reflect the logical structure of the work;
- facilitate the reading of the work by providing an **overview** of its structure, e.g. through indented headings;
- be comprehensible, clear and well-balanced for easy understanding of the reader; it should be comprehensive, but not excessive;
- consist of headings which express clearly the content of each section. Headings should be meaningful, (e.g. "Description and Evaluation of the Lead User Model" and not "Lead-User-Model");

- reflect a structure where equally weighted headings occupy the same ranks within the ordering structure;
- not have an excessively deep-running structure. In the case of a *Master Thesis*, a three- to four-level structure is sufficient. The main headings should have an equal rank in the ordering;

Formal Requirements

- The headings mentioned in the Table of contents should be **identical** to the headings in the main text.
- At least 2 equal-weighted headings should be present at each level of the structure, i.e. Heading 1.1 must be followed by heading 1.2;
- Identical naming of headings at different levels of the structure should be avoided;
- The structure should follow the **decimal system**;
- The headings should appear with the corresponding page numbers.

8.5 Textual Part

The text should be sub-divided, for e.g. through paragraphs and empty lines to facilitate clarity. Special styles (bold or cursive text, underline etc.) should be used selectively and in a uniform fashion, such that the text is made comprehendible for the reader. Using various style elements simultaneously should be avoided.

8.5.1 Headings

The headings in the text should be aligned left, independent of their rank in the structure. Each heading should be self-explanatory. References to sections at a higher level in the structure are not allowed. Full sentences must be avoided; that includes sentences with questions. There is no punctuation at the end of a heading. Headings like "Main Part" and "Text Part" should be avoided.

8.5.2 Text Fields

A main heading should always start on a new page. In all other cases, a heading should start from a new page, when there is not enough space to contain the heading, the empty line and the following three lines of text.

8.6 Figures, Tables and List of Figures

Only such figures are to be used that are integrated in the text by references or explanations.

Formal Requirements:

- Scanned figures and tables should be avoided (only Power-Point graphics, which are later submitted also as a soft copy on an accompanying disc)
- The title of the figure comprises of 3 elements:

For tables, figures etc. the title comprises of:

- 1. Figure/ Table number (continuously numbered through the paper),
- 2. A title that explains the content of the figure/table precisely, and
- The source (for self-constructed figures: "Source: Self-construction", for modified figures: "Source: Self-construction modelled after: [Literature source with a short title and page no.]", for copied figures: "Source: [Literature source with a short title and page no.]".

The source for each figure should be given in a footnote. All figures should be mentioned along with their corresponding page numbers in the List of Figures.

For papers containing large amounts of data which need to be presented as tables, a separate List of Tables might become necessary.

8.7 Abbreviations and List of Abbreviations

Abbreviations should be used minimally in the text.

Standard abbreviations (see dictionary) like e.g., etc. and i.e. are allowed, and **need not** be included in the List of Abbreviations. Abbreviations used for convenience like BWL, Info or TIM (for Technology and Innovations Management) are not admissible.

Common subject-specific abbreviations (like HWB, ZfB or ZfbF) may be used, but should be explained in the List of Abbreviations.

Topic-specific abbreviations should be expanded at first use, e.g. Computer-Aided Planning (CAP). Moreover, these should be mentioned in the List of Abbreviations.

While mentioning the source in footnotes, or in Literature References, the following abbreviations are common and should therefore not be mentioned in the List of Abbreviations:

(Ed. (Editor), p. (page), pp. (pages), ed. (edition), col. (Column), Vol. (Volume), et al. (= et alii, and others), Mr., Ms., B.A., Ph.D., B.C., B.C.E., cf. (from the Latin for "compare"), i.e. (from the Latin "that is"), e.g. (from the Latin "for example")

8.8 List of Symbols

In case mathematical, economical or symbols related to information technology are used in a *Master Thesis*, these should be defined in a separate List of Symbols. These symbols should in any case be defined at first usage in the text, either in parentheses, or as footnotes.

8.9 Attachments and List of Attachments

Only material whose understanding is essential to the topic, but which may disturb the flow if added within the running text, may be added as an attachment, e.g. voluminous tables, questionnaires and figures, formal deductions, unpublished sources etc.

All attachments should be accompanied by meaningful titles, numbered and listed in the List of Attachments.

Also each component of the attachment should be referenced at the relevant place in the main text of the report. Example: "In practice, this method is derived from forms (cf. Questionnaire for Cost Data, p. 62 of attachments)".

8.10 Literature References

Literature that has been read, but not cited, does not belong to the Literature References. A blank line should be inserted between each Literature Reference. Paragraphs should also be used while citing the references.

- All the sources used in the paper should be arranged in alphabetical order by author.
- Multiple publications by the same author should be listed chronologically with the oldest publication first one below the other. In case of the same author **and** the same year of publication, arrange by **title of publication**.
- A sub-structure in the Literature References (e.g. by books, magazine articles and dissertations) should not be used.
- For interviews which have been used in the paper, a separate list should be constructed.

Sources without author should appear in alphabetical order, either under "NN" (not named), or under the name of the publishing institution (e.g. for company reports, advertisement brochures, market research studies), and should also be cited accordingly. Unpublished material should contain a corresponding comment, e.g. "unpublished Master Thesis, Darmstadt 1987".

For citation of the sources in the Literature References section, the following citation methods are <u>advisable</u>:

Books:

Bortz, J./ Döring, N. (1995): "Forschungsmethoden und Evaluation", 2nd Ed., Berlin: Springer.

Souder, W.E. (1987): "Managing new product innovations", Lexington, Mass: Lexington Books.

Edited Books (Anthologies):

Albers, S. et al. (ed.), (1989): "Elemente erfolgreicher Unternehmenspolitik in mittelständischen Unternehmen", Stuttgart: Poeschel.

Mahajan, V./ Wind, Y. (ed.) (1986): "Innovation diffusion models of new product acceptance", Cambridgen, Mass.: Ballinger Publishing Company.

Part of an Edited Book:

Böhler, H. (1995): "Marktforschung", in: Handwörterbuch des Marketing, Tietz, B./ Köhler, R./Zentes, J. (ed.), 2nd Ed., Stuttgart: Schäffer-Poeschel, P. 1768-1781.

von Hippel, E. (1988): "Lead users: A source of novel product concepts", in: Innovation: A cross-disciplinary perspective, Gronhaug, K./Kaufmann, G. (ed.), Oslo: Norwegian Univesity Press, P. 387-406.

Articles:

Cooper, R.G. (1980): "Project NewProd: Factors in new product success", in: European Journal of Marketing, Jg. 14 (5/6), P. 277-292.

Hauschildt, J./ Pulczynski, J. (1992): "Rigidität oder Flexibilität der Zielbildung in Innovationsprozessen?", in: Zeitschrift für Organisation+Führung, Jg. 61 (2), P. 74-81.

Magazine Articles:

Schnitzler, L. (1995): "Kundenorientierung: Nicht das Beste", in: Wirtschaftswoche, 19.1.1995, Heft 4, P. 60-67.

Conference Proceedings:

Hills, G.E./ Schrader, R.C. (1998): "Successful entrepreneurs' insights into opportunity recognition", in: Frontiers of Entrepreneurship Research, Jg. 18, Kauffman entrepreneurship research conference, Center for Entrepreneurial Studies, Babson College, Wellesley.

Unpublished Dissertations (Ph.D. theses):

Capell III, R.L. (1988): "Innovations in telecommunications: Can lead users help guide new services development?", S.M. Thesis, Sloan School of Management, Massachusetts Institute of Technology, Cambridge.

Working Papers:

von Hippel, E. (1995): "Sticky information and new marketing research methods", Working Paper, Massachusetts Institute of Technology, Sloan School of Management; Cambridge, Mass.

Comments:

• When more than one edition of the source exists, in general the latest edition should be used. This is not the case however when a certain citation is present only in an older edition or when the latest edition is not available.

For citing of internet sources, see 9.3.4.

9. Concerning Citations

9.1 Ability and Obligation to cite

Citations are quotes, paraphrases or summaries by other authors. All citations must be marked as citations. This is done using footnotes or in the Harvard system (Author's name, Year).

Only those works **may be cited**, which can be understood and verified by the reader (especially during the correction phase).

This is the case for published works. Unpublished, generally inaccessible sources (e.g. statistical material of a company) have to be submitted along with the report. Before using such sources, however, authorization of the owner should be obtained. Lecture notes or seminar handouts should not be cited; in most cases, the original source should be obtained.

Verbal comments may be cited only on the basis of a conversation protocol, which should be listed in the Literature References. For the sake of simplification, it is enough to mention the date of conversation and the conversation partner along with a keyword-overview of the conversation content. Citations from tutors, lecture notes and self-constructed or workgroup manuscripts should not be used.

A citation obligation always exists, independent whether or not an author wants to document other ideas, leaves the idea open for further interpretation, or develops the idea further. The citation obligation is of course also applicable for tables, diagrams, symbols, pictures etc. Generally the original source should be referred to. The use of secondary sources is only allowed for difficult or unobtainable original sources. This obligation exist only does not exist when the involved ideas are already common scientific knowledge. Scientific work does not consist of many citations continuously arranged one after the other. Paraphrased citations should be used.

9.2 Footnotes

The sources marked in the text with a superscripted number should be referred to in footnotes. Footnotes essentially serve two purposes: firstly, they serve to indicate the used citations on one page. Secondly, footnotes can be used as the author's supplementary remarks to the text, which, if inserted within the text, would disrupt the text-flow.

Footnotes should be separated from the text on the corresponding page by a 5 cm long leftaligned line. The footnote should appear on the same page as the text to which it corresponds. The numbering is conducted continuously, i.e., a page- or heading-wise numbering is not allowed. Each footnote must begin with a capital letter, and must end with a full-stop. For direct citations, the number should appear directly following the closing inverted commas. For indirect citations, the number should appear right after the full-stop (Exception: when the footnote corresponds to a particular word within the sentence. Place the number right after the word in such cases); the same is applicable for half- or part-sentences. The numbers should be used in the footnotes. Firstly, the sources must be mentioned in full in the Literature References. If multiple sources from the same year by one author are cited, this should be indicated by using letter-extensions for the year of publication.

Example: ¹ Ref. Herstatt (1999), P.XX ² Ref. Herstatt (1999a), P.XX

These extensions also have to appear in the Literature References.

9.2.1 Clarifications by the Author

Clarifying remarks may be added by the author along with the references. These remarks should be added only to further clarify the source of the reference, and not to accommodate the ideas of the author. These ideas belong into the main text.

9.2.2 Footnotes for Multiple Sources

Multiple Authors, Single Source

When more than three authors exist for a single source, it is enough to mention the first author followed by "et. al.". This is not be used in the Literature References.

One Source, Two consecutive References

If the same source is cited in two consecutive footnotes on the same page, the second source, instead of being stated in full, is cited with the abbreviation "ibid" followed by the page number of the previously-cited reference (for cf. => cf. ibid, P. ...; for word-by -word citations => Ibid, P. ...). The same is also valid for all following references to the same source in footnotes on the same page. Beware if the second footnote slips down to the next page of the report, the source should then be stated in full (Problem with formatting or different printers!).

One Author, Multiple Sources in succession

If two works by the same author are cited in succession one following the other on the same page, the second reference should be marked as "same".

Only when the original source is unavailable (even after lasting efforts to obtain the same), may a source used in secondary literature be cited. In such cases, citation of the original source is followed by the secondary source along with "cit. op. …" in the Literature References. The same convention should be used for footnotes.

The page numbers should accompany the citations provided. The pages used may be cited as a single page ("P. 18"), several single pages ("PP. 214, 216, 235"), a set of pages ("PP. 34-47"), whole sections of text ("Ch 7, PP. 26-58", always with page numbers), or the complete text ("pass." for passim, i.e. continuous). Other designations may be used to highlight the text. For e.g.: "..., Ch. 7, PP. 36-58, especially P. 37 and 41". When many pages are cited, a citation "PP. 15" should not be used, because it is unclear whether the pages 15-17 are meant, or pages 15-25.

9.3 Citations

9.3.1 Direct Quotes

Sentences, parts of sentences, expressions, definitions etc. are taken word-by-word in direct citations. A failure to indicate direct citations represents a serious error, and results in the marking of the student as "failed" ("nicht ausreichend"). Direct citations should be placed

within quotation marks. Long direct citations should be avoided. Direct citations should exactly match the original text.

It should be checked that the direct citation cannot be misunderstood or misinterpreted in the context of the accompanying text.

Citations within a citation should be marked with apostrophes ('...').

The following exceptions are possible:

• Citation Omissions and Discontinuities

While adjusting a citation so that it fits well within the text, or to leave out parts of the citation, the corresponding position within the citation should be marked by [...] or, for longer breaks by [...].

• Extending a Citation

If a citation is extending by an explanatory remark by the author, these remarks should be placed within brackets along with the remark "Author's remark".

Emphasized text in the citation should be included as is. Emphasis that has been included by you should be accompanied by the remark (Author's emphasis.).

Quotations from German sources (or English sources, if you are working in German) can be translated, or inserted as they are. The technique of citing is the same as normal citations. Word-by-word citations from sources in other languages besides German or English should be translated and placed within running text. The accompanying footnote should then carry the original text from the source (within brackets and quotation marks). Switching between languages within a sentence should be avoided.

9.3.2 Indirect Citations

An indirect citation does not follow the original text literally, but involves the repetition of the idea presented within the original text. The goal of such a citation is to include another perspective, with which the author agrees, which is further developed by the author, with which the author dissents, or simply to demonstrate a similarity with the author's own ideas. Similarly, if sources in foreign languages are used here, they should be indicated by

information about the source. The accompanying footnote begins with cf. The extent of the indirect citation should be become clear in the footnote.

Close correspondence between the texts should be indicated by the abbreviation "Ref." (Refer to), a limited similarity through "See" or "Also see". Other relationships between contents may be explicitly described. Example for a footnote text: "A precursor of this research approach is expressed in the disposition by Lüthje:...".

9.3.3 Secondary Citations

Secondary citations are used when direct or indirect citations are not taken directly from the original text by Author A, but from a text by Author B, who himself has cited Author A. Normally this is not allowed. Each citation (direct or indirect), which has not been investigated by you must be proven on the basis of the original source.

In case the original text could not be obtained despite strong efforts, a secondary citation may be allowed as an exception, and should be indicated by the remark "cited after" in the footnote.

9.3.4 Possibility of Citing from the Internet

The possibility of scientific citing from the internet is still not clear. As a lot of information, due to many reasons, is available exclusively on the internet, a need to use this medium exists. Since the use of the medium is not the criterion but the information content, the following guidelines may suffice until further guidelines are available which deal with the problem of authenticity of the internet citations:

- 1. Information from the internet should be used only when it is not (yet) available in a citable form (Books, Magazines etc.), or when this information is otherwise too difficult to obtain.
- 2. Citations should be unequivocally identifiable. Since complete documents with page information are often available on the internet, the following guidelines should be followed:

a) Literature References

Family Name, First Name (Year): Title, online in internet: Format: URL, Enquiry: [dd.mm.yy]; Time [hh.mm], first and last page numbers if applicable.

b) Short Citation in the Footnotes

Name (Year), Format: URL, Page numbers if applicable

IMPORTANT:

The sources cited from the internet must be included in the *Project/Master Thesis* or the *Seminar report* as files on a CD!

9.4 Textually correct Citations

Direct and indirect citations must convey the meaning of the cited author, and also place it in the correct context. It is a blatant breach of the rules for a diligent piece of scientific work, when a contextually-placed formulation by the author is presented as evidence for a position not intended by the author.

10. Guidelines for Language Usage in Scientific Work

Since the style of language used, spelling, punctuation, sentence construction and script type are often underestimated in importance, the following guidelines are provided:

- Main ideas should be placed in the main part of the sentence, less important ideas in secondary sentences;
- Long compound sentences should be avoided;
- Empty expressions and word repetitions should be avoided;
- Foreign words (especially "buzz words") should be used sparingly;
- Comparatives without a compared object are senseless;
- Passive expressions should also be avoided. The points at stake should be actively expressed
- Questions should be used only as an exception;
- Construct short sentences with a unity of purpose, use only complete sentences, and avoid omissions. Logic relations between sentences should be made clear;
- Be creative in the choice of words. It often helps to avoid the same grammatical forms (such as brackets, dashes, footnotes instead of using the same adverbs continuously);
- A contextually-compatible flow of text should be achieved, therefore, long numbered lists within the text should be avoided;

- The first person should be avoided;
- Be careful towards normative statements. Without a conceptual base and information about objective targets, formulations like "The company must..." or "...should..." could be problematic;
- When the formulation "The Company", "The Supplier" etc. are used, the reference should be clear. Auxiliary production companies etc. can also be referred to as "The Company" or "The Supplier" as appropriate.
- Do not forget that writing, printing and conjunction mistakes should be avoided (Tip: Run an automatic syllable-separation test at the last stage and get friends to proof-read the paper).

11. Summary and Important Points

Construct your scientific work in a meaningful way!

- Use meaningful transitions;
- Realize the most important aspects of your topic and then concentrate on them; limit your topic, if necessary, in a meaningful way (through appropriate consultation with the responsible assistant);
- Write down only points, which you yourself have understood;
- Justify/explain your statements.

The following typical mistakes while writing a scientific *Master Thesis* and *project-work* should be kept in mind:

Mistakes with a direct bearing on the content

- Too late in deciding on the topic (Goal: quick formulation of "What's the problem?");
- Very broad thinking, not close enough to the topic;
- Trying to "collect points" with the obtained learning, where no points can be obtained due to the lack of an inventive step;
- Missing overviews, tables and figures, where meaningful;
- Superfluous introduction, without touching the core problem.

Systemic Mistakes

- Incompleteness (e.g. while listing the decision criteria);
- Non-comprehendible order;
- Weighting of the different headings is improper;
- Reasons for definition of the topic or reduced consideration of certain parts are not substantiated.

Formal Mistakes

- Missing List of Abbreviations, Figures or Tables
- Orthographic mistakes and punctuation mistakes
- Sentence construction is non-comprehendible or grammatically wrong
- Bad overall impression
- Figures not mentioned or explained in the text
- Indirect citations ("cf.") and direct citations attributed wrongly
- Inconsistent citations, e.g. first names and authors, short or expanded citations are mixed
- Citation information, without actually having used these sources
- Used literature missing in the Literature References
- Central literature is missing, e.g. standard sources, course books, articles from handbooks

All the Best!!!

Prof. Dr. Herstatt

Hamburg, August 2005

12. Further Materials

The following libraries in Hamburg may be used for the purposes of writing scientific work:

- 1. TUHH Library (<u>http://www.tub.tu-harburg.de</u>)
- 2. **Bibliothek der Helmut-Schmidt-Universität**, Universität der Bundeswehr (<u>http://www.hsu-bibliothek.de/</u>)
- 3. Staatsbibliothek (<u>http://www.sub.uni-hamburg.de/</u>)

Further Materials for the writing of scientific work:

English Sources:

Hans F. Ebel. (2004) "The art of scientific writing : from student reports to professional publications in chemistry and related fields", completely rev. ed. - Weinheim : Wiley-VCH

Björn Gustavii (2003) "How to write & illustrate a scientific paper", Cambridge [u.a.] : Cambridge Univ. Press

German Sources:

Bänsch, A. (1998): "Wissenschaftliches Arbeiten: Seminar- und Diplomarbeiten", 6. Aufl., München: Oldenbourg.

Jacob, R. (1997): "Wissenschaftliches Arbeiten: eine praxisorientierte Einführung für Studierende der Sozial- und Wirtschaftswissenschaften", Opladen: Westdeutscher.

Theisen, M. R. (1997): "Wissenschaftliches Arbeiten: Technik-Methodik-Form", 8. Aufl., München: Vahlen.

13. Appendix

Attachment I: Sample version- Title Page for a Master Thesis

Co-operation between Producers and Consumers of Innovative Goods

Freie wissenschaftliche Arbeit zur Erlangung des Grades eines Diplom-..... an der Technischen Universität Hamburg-Harburg

Referent: Prof. Cornelius Herstatt

Submitted by:

Cand. Dipl.-Ing. James Bond Matrikel-Nr. 007 Goldfinger 70 21073 Hamburg Tel.: (040) 0815

Hamburg, 1st April 2005

Attachment II: Statement of Honor

Text of the Statement of Honor

Statement of Honor

I hereby declare that I personally have completed the present scientific work. The ideas obtained from other direct or indirect sources have been indicated clearly.

This work has neither been submitted to any other course or exam authority, nor has previously been published.

Hamburg, (Date)

(Signature)