Chair of Human Resource Management and Leadership Prof. Dr. Torsten Biemann	UNIVERSITÄT MANNHEIM

Guideline for writing scientific papers

(Bachelor- and Master Theses / Seminar papers)

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Contents

Figures and tables

Abbreviations

APA	American Psychological Association
ed.	edition
e.g..	exempli gratia (for example)
i.e.	id est (that is)
JSTOR	Journal Storage
HdWW	Handwörterbuch der Wirtschaftswissenschaft
HWB	Handwörterbuch der Betriebswirtschaft
HWFü	Handwörterbuch der Führung
HWO	Handwörterbuch der Organisation
HWÖ	Handwörterbuch der öffentlichen Betriebswirtschaft
HWP	Handwörterbuch des Personalwesens
p.	page

1. The objective of this guideline

Past experience has shown that several easily avoidable mistakes tend to reappear during the process of writing scientific papers. This guideline aims at preventing some of these common mistakes. In addition, it provides advice on writing a scientific paper. It is not an exhaustive manual, but rather provides suggestions in order to improve the process and the output of scientific work.

Besides general advice regarding scientific papers, which can also be referred to using the relevant literature, this guideline discusses the requirements of the Chair of Human Resource Management and Leadership. The primary purpose of this guideline is to help students of this chair to work on their scientific papers. Additional questions can be discussed with the respective supervisor.

Good look when writing your paper!

2. Process before writing a seminar paper or thesis

2.1. Topic selection and first steps

The scope of the scientific paper will either be discussed in the introductory session or directly agreed upon with the responsible supervisor. The responsible supervisor also guides the choice of the concrete topic. When selecting and specifying a topic several aspects should be considered.

1. **Problem and research question**
   First, a concrete problem has to be related to the current state of research. How relevant is this problem? Then, related research questions can be derived from the problem.
2. **Objective(s) of the paper**
   According to the problem presented in the paper, objectives should be specified. Examples for an objective range from an analysis of different instruments or an empirical investigation of hypotheses to the development of an adjusted theoretical model.
3. **Basic structure of the paper and methodology**
   Following the objective, the structure of the paper will be derived. At this point, you should denote the main parts within a table of contents and their partial aspects. Furthermore, a method for solving the problem has to be found at this stage.

Students who are interested in writing a **master`s thesis** should consult the relevant literature or coursework offered by the chair in order to inform themselves about the direction of the current research and problems relevant for human resource management and leadership. From this, students will develop their own suggestions about topics or research questions which will then be discussed and specified with the responsible supervisor in order to find a final topic and research question. It is important to mention that proposed topics should not be solely descriptive (e.g. “the assessment-center”) but rather be problem-oriented (e.g. “legal issues of assessment centers”). You should contact researchers directly if you are specifically interested in one of their research areas presented on their homepage. Occasionally, the chair suggests topics as well.

After a topic has been found, a period of three up to six weeks should be used to narrow a topic down to a more specific problem and research question. In this period, the student will receive guidance from his or her responsible supervisor. Optionally, the student will have a discussion with Prof. Biemann.

2.2. Literature review

The majority of the literature review should be done before writing the paper. A systematic review can be done using bibliographies, textbooks and (internet-) databases. Exemplary sources include.

- For an initial overview, use *google scholar*
    - Search for (combination of) keywords of relevant concepts (e.g. “job satisfaction” and “performance”)
    - Forward search: Search for article that cite a well-known article
    - Backward search: Articles listed in the reference section of papers
- Databases (Lexis-Nexis, Wiso-Net, JSTOR, …)
- General or specific bibliographies
- Handbooks (HdWW, HWB, HWFü, HWO, HWÖ, HWP)

Since quality is a concern when conducting academic work, it is helpful to consider journal rankings before using a source. For a ranking of journals, consider for example http://vhbonline.org/service/jourqual/ or the “Journal Quality List” from www.harzing.com. In addition to quality, it is important to consider the year when a paper was published and to check whether it is still relevant.

3. Writing a seminar paper or thesis

3.1. Content aspects of the paper or thesis

The structure or table of contents can be deduced from the problem tackled by the paper. (Sub-) aspects of the problem are reflected in the main bullets of this table of contents. The text of the paper should be divided into three parts: Introduction, main part and conclusion.

The **introduction** is supposed to show the relevance of the topic, to introduce the goal of the paper, to discuss the limitations of the research questions, to outline the structure of the main part and finally to name the methodology. It is advisable to write the introduction after the main part and the conclusion are finished because students then generally have a better understanding of the topic and are better able to *introduce* the topic.

For the **main part**, students should consider the following aspects:

- The levels of argument of similar text passages should be comparable (e.g. chapter one: personnel selection, chapter two: personnel development).
- Different but central subject areas should be treated equally in terms of quality and quantity.
- Using short introductions connecting the subsections is helpful to express the overall chain of argumentation of the paper.
- Occasional summaries both aid to structure the text and therefore assist the reader's comprehension or emphasize relevant aspects.

The **conclusion** of the paper is used to sum up the most important results and to provide interpretations and implications of these results. It is not sufficient to repeat statements made in the main part; one should rather provide a context for the findings. Additionally, the conclusion can be used to point to unsolved questions and avenues for future research.

3.2. Formal aspects of the paper or thesis

3.2.1. Cover page

The cover page of the paper needs to contain the following: “Universität Mannheim”, “Chair of Human Resource Management and Leadership”, “Prof. Dr. Torsten Biemann”; [type of the paper] e.g. Thesis Bachelor of Science in Business Administration”, [title of the paper], [name], [address], [student ID], [e-mail address], [supervisor] und [hand-in date].

Illustration 1 shows an example of the formal arrangement of the title page for seminar papers and theses. Arrangements can be done differently, of course, but need to contain the same information.

Universität Mannheim

Chair of Human Resource Management and Leadership

Prof. Dr. Torsten Biemann

Seminar paper/ Bachelor-/ Master Thesis

(Title, German)

(Title, English)

Handed in by:

[Name]

[Address]

[Student ID]

[E-mail address]

Supervisor: [Name]

Hand-in date: [Date]

Illustration 1: Example of the cover page of a seminar paper / thesis

3.2.2. Indexes/lists

Before the actual text, several indexes have to be shown:

- Table of contents
- List of abbreviations
- List of illustrations
- List of figures (and tables)

After the text, further components have to be shown:

- References
- Appendix
- List of case laws
- List of references of official publications
- Affidavit and agreement that paper is examined by a plagiarism finder software (see 3.2.3)

The **table of contents** describes the structure of the paper. It should be meaningful and comprehensive with regard to how the topic is handled. The numerical classification, as shown in illustration two, can be used as an example.

Numerical classification:

Contents
List of figures and tables
…
1 …
    1.1 …
        1.1.1 …
        1.1.2 …
    1.2 …
2 …
…
References
Appendix

Illustration 2: Numerical classification

The table of contents should clearly and completely display all sections and subsections of the text, indicating also their respective page number. The aforementioned indexes and lists are also regarded as sections and therefore have to be included in the table of contents.

You have to keep in mind that structuring a subject should be done according to only one criterion that creates subsections. A mixture of criteria for separating one section is thus not acceptable. Additionally, for any division of a section there need to be at least two subsections because otherwise you would not really divide a section. At this point it should also be mentioned that text can be written between a section and a subsection. This text, however, must only explain the division of a section and must not describe content from the following subsections. It is your decision whether you want to introduce text between a section and a subsection. This decision should be consistent during the paper. Finally, you should only use a maximum number of four levels when creating sections and the table of contents.

For the **list of abbreviations** there exist two alternatives:

1. In an alphabetized list of abbreviations all used abbreviations in the text and the list of literature need to be clarified (for example abbreviations of laws, names of journals).
2. As in 1., but no abbreviations, which can be found in the “DUDEN-Rechtschreibung”. For papers in a different language than German, refer to 1.

The decision for an alternative needs to consistent throughout the paper.

All used figures and tables need to be listed in the **list of figures**. The figures and tables are best described consistently as “illustrations”. They need to be labelled with titles and page numbers. If a paper uses many figures and tables (for example in an empirical paper) it is advisable to use a list of **figures and tables**. The text of the illustration needs to refer to the figures and tables and should be below the illustration. It is not allowed to use figures and tables without reference to the text. Figures and tables have to be numbered consecutively. After the label and number use a colon and then the description of the illustration. At the end of the description use a dot. All illustrations need to be labelled with the reference/source. Under the caption, use the next line to include the source of the figure or table specified by the introduction “Source:”. As an alternative, the source can be added using a footnote at the end of the caption. If you have made changes to the original illustration found in a source you should include the phrase “based on”. The most significant figures and tables should be included in the text. For papers with many illustrations or illustrations it is advisable to include these in the appendix.

The **appendix** may include additional material and documents, which simplify the understanding of the text, but are not an integral part of the text and/or are not easily accessible (e.g. questionnaires within empirical studies). Nevertheless, the appendix should not be mistaken as a dump for non-relevant material.

The **list of references** lists all used sources from the text, cited within the paper. This applies to directly cited sources as well as to indirectly cited sources and illustrations that have been taken from a source.

For laws or jurisdictions described in the text, there need to be no additional entries in the list of references. For writing the list of reference as well as for citations in the next, please **make use of the requirements of the American Psychological Association (APA)!**

3.2.3. Affidavit and agreement to plagiarism finder software

At the end of the paper the candidate needs to separately attach a written statement with the following content (the actual wording needs to be taken out of the particular valid examination regulations of the course of studies):

“Hiermit versichere ich, dass diese (Abschluss-)Arbeit von mir persönlich verfasst ist und dass ich keinerlei fremde Hilfe in Anspruch genommen habe. Ebenso versichere ich, dass diese Arbeit oder Teile daraus weder von mir noch von anderen als Leistungsnachweis andernorts eingereicht wurde. Wörtliche oder sinngemäße übernahmen aus anderen Schriften und Veröffentlichungen in gedruckter oder elektronischer Form sind gekennzeichnet. Sämtliche Sekundärliteratur und sonstige Quellen sind nachgewiesen und in der Bibliographie aufgeführt. Das Gleiche gilt für graphische Darstellungen und Bilder sowie für alle Internet-Quellen.

Ich bin ferner damit einverstanden, dass meine Arbeit zum Zwecke eines Plagiatsabgleichs in elektronischer Form versendet und gespeichert werden kann. Mir ist bekannt, dass von der Korrektur der Arbeit abgesehen werden kann, wenn die Erklärung nicht erteilt wird."

This statement needs to be **dated** and signed **with the first and the last name**.

3.2.4. Diction

For scientific texts, a factual and clear language is appropriate. Explain newly introduced concepts and terms. Use technical terms in an appropriate amount. Though technical terms should and can be used, an artificial and exorbitant accumulation of technical terms inhibits the reading flow. Avoid long sentences ranging over multiple lines. These can be difficult to understand for the reader.

3.2.5. Formatting and text layout

The formatting (margin, font, font size) should be **according to the APA Style.** Departing from APA style rules, the line spacing of Bachelor and Master Theses will always be 1.5.

Page numbers need to be on the top right corner. The pages of the indexes before main text of the paper are to be shown in Roman numerals. The main text uses Arabic numbers. The numbering starts with the cover page with I, however, the cover page should not display a number. The appendix should use Arabic numbering.

Your text can be made visually more appealing by using sensible paragraphs. Additionally, you can highlight parts of the text (for example **bold text**, *italic*), when appropriate. Be careful, however, not to overuse these styles. Every subsection should have a total amount of text of at least half a page. This should be a benchmark and must not be enforced at all times.

3.2.6. Citation style within the text

Scientific value is only generated when a paper represents an autonomous effort (Bänsch, 2003, p. 27). All thoughts and explanations that do not directly stem from the author of the given paper (i.e. which come from scientific literature or other sources), **have to be** declared as such. This can be done using direct or indirect citation such that all used sources of a written paper are related to clearly and completely. In this context, complete refers to the claim that each source that is cited in the text has to reappear in the list of references and vice versa. If sources are omitted, the author presents work of others as his or her own accomplishment. This form of intentional or unintentional plagiarism has negative consequences on the evaluation of the paper.

Citations can be distinguished into two categories: Citing primary and secondary sources. Generally, students should cite the original (primary) source. Secondary sources, sources that cite a primary source themselves, bear the risk of (partially) modified content. Secondary sources should therefore only be used in exceptions (e.g. in cases in which the primary source is not available). These secondary references should be declared as such (i.e. cited from author, year, pages).

The citation of primary sources can happen in two ways: The **direct citation method** repeats the literal wording of the original source which then appears in the text using quotation marks. The **indirect citation method** reiterates the content of a quote and does not appear in quotation marks. **Please make sure to use the American citing form according to the APA Style.**

4. Submission and grading criteria of papers/ theses

The paper needs to be handed in not later than the specified date to the mentor or the secretary of the chair. For term papers a single copy is sufficient. Final papers need to be handed in in duplicate form. Term papers and bachelor theses need to be hole-punched and stapled together with a binder, master theses and diploma theses need to be handed in bonded. Students of other fields than Business Administration turn in an extra copy for the second supervisor (if applicable). Furthermore, a digital version of the paper has to be submitted using a common format (PDF or Word). You can agree with your supervisor to either use a portable storage medium or e-mail for the submission.

After handing in the scientific paper, the assessment is done using the following criteria, which also serve as the structure of the assessment report.

1. Clearness of the research goal and the approach

At this criterion, it is important that all relevant research questions that can be deducted from the specified topic are represented in a clear and comprehensible way using the introduction of the paper. Furthermore a clear approach should be evident from this introduction.

2. Composition and outline of the paper

The common thread of the paper should be comprehensible. The outline of the paper should be logical and consistent. Single sections and subsections should be separated correctly with respect of content. Beyond the outline, the text should be structured. The line of argument should be systematic and built on previous sections. In addition, it is important to pay attention to the weights and priorities of the sections in a logical and sensible way.

3. Content

The content of the paper should be differentiated and focused. Here, the correctness of the statements and the reasoning when connecting statements are evaluated. It is also important to consider how deeply a paper discusses an aspect. Statements should be explained and be based on relevant sources.

4. Quality of the empirical/theoretical analysis

This criterion evaluates the overall understanding and the comprehensible presentation of the analysis. Furthermore, the theoretical foundation that the analysis is based upon as well as the methodology and the interpretation of the results will be evaluated. The chosen theoretical framework should be appropriate for the research problems and questions. In addition to this, methodological competence, which is expressed in the empirical part of the paper, will be evaluated. The result of the paper should be an answer to the questions raised in the introduction. Finally, it is evaluated which results the author generated and to what extent he or she dealt has with all the asked questions.

5. Interpretation and use of literature

Literature should be gathered thoroughly. For more information read 2.2.

6. Language

Comprehensibility, style, readability and clarity of expression will be evaluated.

7. Formal composition

Given formalities should be adhered to. All indexes and lists have to be complete and available. Citation method, spelling and punctuation should be correct.

8. Critical appraisal and analysis/personal opinion

The paper should discuss the subject in a comprehensive and differentiated way. A critical review of the results and methodology must be provided at the end of the paper.

Evaluation is accessible to the author at the student service center or at the chair. In addition to this, it is possible to arrange an appointment with your supervisor for a comprehensive feedback.

References

Bänsch, A. (2003). Wissenschaftliches Arbeiten: Seminar- und Diplomarbeiten, 8th ed., Munich.