



## Academic Writing Guidelines at the Chair of Public Economics

(Last update: December 2023)

These guidelines contain basic rules for writing seminar, bachelor and master theses. Additional formal and legal rules can be found on the websites of the examination office (Prüfungsamt) and the student information center (SIZ).

This guideline is separated into six parts:

1. Formalities
2. Spelling and style
3. Explanatory notes for the content
4. Specific details for bachelor- and master theses
5. Bibliography
6. Appendix

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### 1 **Formalities**

#### 1.1 **Number of Pages**

The number of written pages includes for seminar papers and thesis:

- Seminar paper (bachelor/master): 20 pages (if not communicated differently in the course)
- Bachelor thesis: 40 pages
- Master thesis: 60 pages

The number of pages for every scientific paper can deviate by +/- 10%. The table of contents (if necessary with further additions like the table of figures or the list of tables) *is not meant to be included* in the given number of pages. The same holds for figures, tables, the appendix or the bibliography.

For Bachelor theses, a maximum of ten tables, figures, graphs, charts or similar (also as appendices) are permitted; for Master theses, a maximum of 15.

#### 1.2 **Submission**

**Seminar papers** have to be in via email as an *electronic version* (pdf format) to the tutor.

**Bachelor and Master theses** have to be submitted to the examination office. More information about the regularities with respect to the submission is provided by the examination office. In addition to the submission to the examination office, please send an electronic version (pdf) to the chair. In case of empirical theses, please also provide us with your code and the underlying dataset.

Please notice that the seminar paper and the bachelor as well as the master theses must include a [declaration of originality](#) and a [declaration on the use of generative AI](#).

### 1.3 Structure and typography

#### Structure of a scientific paper:

- Blank sheet (not for seminar papers)
- Title page (see the webpage of the chair for templates)
- Table of contents
- Table of figures
- List of tables
- List of abbreviations
- List of symbols (if needed)
- Main Text
- Bibliography
- Appendix
- [Declaration of originality](#)
- [Declaration on the use of generative AI](#)
- Blank sheet (not for seminar papers)

#### Typography:

- Proportional font (font size 12), line spacing 1.5, justification
- Footnotes: font size 10, line spacing 1, left-justification
- Every sheet is to be printed one-sided, on the left you should leave a space of 4 cm and on the right of 1.5 cm. This norm also applies to the title page and the appendix.

All pages after the title page are numerated. There are two alternatives: Either every page is continuously numerated with Arabic numerals or the table of contents, table of figures, list of tables, list of abbreviations and symbols are in Roman numerals and the main text, appendix and bibliography are in Arabic numerals.

### 1.4 Table of contents

The structure is an essential part of the work. The structure should represent the logical construction of the writing, i.e., use understandable and meaningful wording and give an adequate overview. The following points are of note:

- The single points of the structure have page references; they coincide with the titles in the text and conclude the content shortly and precisely.
- A logical thinking and understanding of a topic is shown in a flawless structure of the work. For example, it is important that sub item 1.1 is followed by sub item 1.2. Lower indenture levels should not be a mere repetition of higher indenture levels and the main text bodies should be balanced in content and size.
- A well-arranged and generous presentation of the table of contents could be accomplished by indenting the lower points. Nevertheless, avoid too many breakdowns. The structure should have three levels maximum and titles can be highlighted (e.g., chapter titles with capitalization and section titles with underlining).



For classification, the following schemes are available:

#### DECADIC CLASSIFICATION

1. ...
  - 1.1. ...
    - 1.1.1. ...
    - 1.1.2. ...
  - 1.2. ...
2. ...

#### MIXED CLASSIFICATION

- A. ...
  - I. ...
    1. ...
    2. ...
      - a. ...
        - aa. ...
        - ab. ...
      - b. ...

You can find an example table of contents in the appendix of this document.

A scientific paper consists of an introduction, a main part and a conclusion. It is important to ensure scientific neutrality. If you make value judgements, substantiate these with theoretical and empirical arguments (and present several contrasting judgements before coming to your valuation).

Introduction and conclusion form the brackets around the main part and need to be self-contained.

The introduction needs to cover the following:

- Motivate and delimit the topic
- Outline and justify the course of action
- State and substantiate the research interest
- Formulate a research question (this should be again picked up and answered in the end)
- Present the structure of the work

The conclusion needs to present the most important scientific findings and to provide an answer to the research question posed.

## 1.5 Figures and tables

Tables, figures etc. need to carry a precise description of the content and are continuously numerated. Pay attention to a precise local, temporal and objective differentiation of the figure. For the scientific work, it is relevant to **include a suitable selection of relevant figures and tables** that meaningfully support and substantiate the statements of the text.

EXAMPLE:

Fig. 1: Example for a figure description

*Immediate under* the table or the figure should be a short explanation of the used symbols (without prejudice to the fact that it is explained in the text), added notes and literature given. All tables and figures need to be self-contained, that is they need to be understandable without reading the main text. Finish the explanation with a point.

The tables and figures should be placed at an appropriate place in the text and never follow a title directly. By referring to the tables and figures you should always specify the corresponding figure or table number. The lists of figures and tables contain all used figures and tables with their number, title and the correspondent page number. Extensive material like large tables/figures, long formal derivations, legal texts etc. should be placed in the appendix.

## 1.6 Abbreviations

Abbreviations need to be avoided in the continuous text and are never part of titles. Only familiar abbreviations (see Duden) like *etc.*, *cf.*, *e.g.* and topic-specific abbreviations are accepted. The former abbreviations are not part of the list of abbreviations. The latter abbreviations should be written out the first time, including the abbreviation for further using. Not allowed are abbreviations because of convenience (e.g., Econ. for Economics). Examples or abbreviations which should be included in a list of abbreviations are:

|     |                              |
|-----|------------------------------|
| GDP | Gross Domestic Product       |
| BPO | Business Process Outsourcing |
| IMF | International Monetary Fund  |

Abbreviations which should only be used for literature are not listed in the list of abbreviations:

|          |                          |
|----------|--------------------------|
| chap.    | = Chapter                |
| ser.     | = Series                 |
| ed(s).   | = Editor(s)              |
| vol.     | = Volume                 |
| n.d.     | = no date of publication |
| p. (pp.) | = page(s)                |

## 1.7 Symbols and formula

Formulas are numerated with right-justified text. The formula and the used symbols need to be explained in the text when using them for the first time.

EXAMPLE:

$$\frac{dU_i(q_i)}{dq_i} \geq 0 \quad (i \in I, q_i \geq 0) \quad (1)$$

All symbols used are listed in the list of symbols. It is important that one symbol should not have different meanings. Formulas and symbols need to be implemented via an equation editor.

Use symbols consistently. Symbols from other sources need to be made consistent with the already used symbols in your work. The exception are word-for-word quotes.

## 1.8 Footnotes

If necessary, the footnotes contain references plus minor additions of the author. Information which is not necessary for the comprehension of the text but also not trivial, can be relegated to footnotes. In addition, it is important to limit the number of footnotes; too many footnotes suggest that the author has failed to well structure the main text to include all relevant ideas.

The footnotes should be delimited by a line and continuously numerated with Arabic numerals. If unavoidable a footnote can continue on the following page but it is necessary to delimit footnotes by a line from the main text. Footnotes should end with a full stop. Abbreviations are followed by one single full stop.

## 1.9 Appendix

An appendix is only necessary for additional material. For example, the appendix can contain additional empirical results or theoretical derivations.

## 1.10 Dealing with sources

A main principle of scientific work is to declare the origin of all facts and not self-developed thoughts, as long as they are not general scientific knowledge. In practice there are many citation styles whereupon the “Harvard citation style” is common at this chair. It is essential that the source is clear and helps the reader to find or identify the text passage respectively (resp.) the data. The bibliography includes every cited article and every other cited source (databases, legal norms, internet sources).

For the purpose of grading, the chair can request all cited sources from the author of the thesis. Please preserve them on a physical or electronic data medium until your work is graded. This applies especially for internet sources.

Please keep in mind that the usage of secondary sources only should happen in argued exceptional cases.

### Harvard citation style (short reference in the text)

The declaration of the source occurs directly after the quote in parentheses. Specified should be the author and the year of publication of the source (and the page if referring to specific statements). Publication year and page number can be separated either by a comma or by a colon. However, the author should decide for one variant and stick to it.

#### EXAMPLES FOR A SHORT EVIDENCE IN THE CONTINUOUS TEXT:

- On average, faster reformers among transition economies can show better growth performance in the first decade (Wyplosz 2000, p. 27).
- or:
- On average, faster reformers among transition economies can show better growth performance in the first decade (Wyplosz 2000: 27).

### Additional remarks on the citation style:

#### 1.10.1 Multi-page quotes

If a quote obtains on a text passage over multiple pages you should write an “*et seq.*” (if it lasts for two pages) and an “*et seqq.*” (for more than two pages) after the page number. Preferably, specify the

exact page numbers (for example “pp. 40 – 68”). The author needs to decide for one variant and stick to it.

### 1.10.2 Primary and secondary sources

Reliable secondary sources can be stated if the primary source is not available. They should be indicated in the continuous text with the adding “quoted after... .”

#### EXAMPLE:

##### *Indication in the continuous text:*

In the long run, inflation is due to monetary causes (Friedman quoted after Müller 1996, p. 12).

##### *Indication in the bibliography:*

Müller, T. (1996), *Europäische Geldpolitik*, Hamburg.

### 1.10.3 Sources of law

Sources of law (for example Foreign Trade Law, Treaty on the Foundation of the European Community) are cited as primary sources. They are cited in the continuous text under specification of the paragraph/article, the passage and the official abbreviation. Required details for the bibliography are the official abbreviation, the official title, the geographical coverage in parentheses (if not explicit) and the date of the last modification.

#### EXAMPLE:

##### *Indication in the continuous text:*

The application of import and export duties is prohibited between the member states of the European Union (Art. 23 EGV).

##### *Indication in the bibliography:*

EGV, *Vertrag zur Gründung der Europäischen Gemeinschaft*, last changed on 24.12.2002.

### 1.10.4 Author and the year of publication

With up to three authors, all authors are named in the continuous text. If there are more than three authors only name the first one and summarize further ones with “*et al.*”<sup>1</sup> in the continuous text. An alternative is to name all authors when citing them for the first time and to use the abbreviation “*et al.*” in further citations. All authors are named in the bibliography.

#### EXAMPLE:

##### *Indication in the continuous text:*

For example Berg et al. (1999) come to the conclusion that the macroeconomic framework conditions are significantly correlated with growth, however their contribution to growth is lower than that of initial conditions and structural reforms.

##### *Indication in the bibliography:*

Berg, A., Borensztein, E., Sahay, R. and Zettelmeyer, J. (1999), The Evolution of Output in Transition Economies; Explaining the Differences, *IMF Working Paper No. 99/73*.

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<sup>1</sup> From lat. „et alii“ = „and other“.

If no natural persons are named as the author, then the corporate body (for example International Monetary Fund, European Parliament, Frankfurter Allgemeine Zeitung) should be used as the author. Abbreviations for corporate bodies (for example IWF, FAZ) can be used both in the continuous text and in the bibliography if they are topic-specific. You need to write them out in the bibliography additionally.

EXAMPLE:

*Indication in the continuous text:*

In an international comparison, German industrial research is not very far ahead in most of these cutting-edge technology areas (BMBF 2007, p. 64).

*Indication in the bibliography:*

Bundesministerium für Bildung und Forschung (BMBF) (2007), *Bericht zur technologischen Leistungsfähigkeit Deutschlands 2007*, Berlin.

Name affixes (de, De, Di, La, Le, Mac, Mc, O', ten, van, of, etc.) are part of the family name. The classification of such a source in the bibliography follows the initial letter of the name affix. Degrees like Dr., Ph.D., Prof. etc. are not mentioned. If there is no author, use the article title first. If there is no year of publication, you should mention it by the acronym "n.d." (no date).

If one author is cited many times on one page, you can replace the name with the expression "Same". If the same source is used for immediately consecutive quotes, you can use the abbreviation "*Ibid.*"<sup>2</sup> with declaration of the page of the quote. Append small letters (a, b, c) onto the year when citing multiple publications from the same author and year of publication. The appending of these letters follows the chronological temporal order if it's recognizable. In the bibliography, the sources need to be sorted in ascending order of the small letters.

EXAMPLE:

*Indication in the continuous text:*

The harmonized consumer price index showed a slight decline in inflation in 2004 (Deutsche Bundesbank 2005a, p. 17), but in the first half of 2005 leading indicators pointed to an increasing risk of inflation (Deutsche Bundesbank 2005c, p. 28).

*Indication in the bibliography:*

Deutsche Bundesbank (2004), *Monatsbericht Februar 2004*, Frankfurt/M.  
Deutsche Bundesbank (2005a), *Monatsbericht Januar 2005*, Frankfurt/M.  
Deutsche Bundesbank (2005b), *Monatsbericht März 2005*, Frankfurt/M.  
Deutsche Bundesbank (2005c), *Monatsbericht November 2005*, Frankfurt/M.

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<sup>2</sup> From lat. „ibidem“ = „at the same place“. alternative „*ib.*“ or „*ibd.*“.

### 1.10.5 Literal and logical citations

Refer to ideas from other publications with logical citations, i.e., with your own words.

#### EXAMPLE:

##### *Indication in the continuous text:*

The convergence club of the centrally planned economy does not only refer to Eastern Europe, since the former Soviet Union and China are also included in this convergence club (cf. Baumol 1986, p. 1079 f.).

##### *Indication in the bibliography:*

Baumol, W. (1986), Productivity Growth, Convergence and Welfare: What the Long-Run Data Show, *American Economic Review*, Vol. 76, No. 5, p. 1072 - 1085.

Literal citations should only be used in exceptional cases and for especially succinct statements. In this case you need to pay attention to adopt them literally (also with old or wrong spelling) and set them into quotation marks. With the usage of “[!/]” the author marks that she/he noticed the mistake. Shortening the citation is indicated with the use of “[...]”. Pay attention to ensure that these reductions do not change the main content and statement of the quote. Own comments inside of a quote are indicated with the use of squared brackets. Cites inside of a quote need to be registered at the start and at the end with an apostrophe (‘).

### 1.10.6 Figures and tables

Figures and tables should generally contain a reference directly under the particular figure resp. table. The reference needs to be followed by a point. If the author has changed them, she/he needs to register it by the use of “*Based on ...*”. For own figures and tables the author should use the expression “*own representation*” resp. “*own calculation*”. Such sources should be handled like citations in the bibliography.

#### EXAMPLE:

##### *Table indication:*

Table A.6: Per capita income in Eastern and Western Europe 1950-1990.

[TABLE]

Source: Maddison (1995), p. 193ff.

##### *Indication in the bibliography:*

Maddison, A. (1995), *Monitoring the World Economy 1820-1992*, OECD, Paris.

## 1.11 Bibliography

The bibliography contains *all* sources which were used in your work, and *no further ones*. This includes also unpublished works which are listed with the expression “*unpublished*” or “*Mimeo*”<sup>3</sup>, and they need to be made available for the correction of the work if requested.

The literature must always be arranged in an alphabetical order according to the surname of the author or the publishing institution (ex. German Federal Bank). Works of the same author are arranged according to the year of publication. No classification occurs according to the type of publication.

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<sup>3</sup> Mimeo = derived from „mimeograph“. Term for an unpublished manuscript or discussion paper.



Every information should be ended with a point. The author must be listed with its surname and the initial letter of its prename. Multiple authors are separated with a comma and the year of publication is put in parentheses. Afterwards follows optionally a colon or a comma.

### 1.11.1 Monograph

Monographs must be specified with author, year of publication, title (*italic, cursive*), edition (*introduced with "ed."*, except at the first edition) and the place of publication.

EXAMPLE:

Erber, G., Hagemann, H., Seiter, S. (1998), *Zukunftsperspektiven Deutschlands im internationalen Wettbewerb*, Heidelberg.

### 1.11.2 Discussion papers, working papers

Discussion papers, working papers and similar papers should contain the following information: author, year of publication, title of the article, name and number of the series (*italic, cursive*).

EXAMPLE:

Fischer, S., Sahay, R. (2000), The Transition Economies after Ten Years, *NBER Working Paper No. 7664*.

### 1.11.3 Newspaper articles

Newspaper articles require the following information: author, year of publication, title of the article, name of the newspaper (*italic, cursive*), specification of the volume (*introduced with "Vol."*), book-number (*introduced with "No."*) resp. name and day of publication of the newspaper, page number. Optionally the expression "*in*" can be written in front of the name of the newspaper.

BEISPIELE:

Baumol, W. (1986), Productivity Growth, Convergence, and Welfare: What the Long-Run Data Show, *American Economic Review*, Vol. 7, No. 5, p. 1072 - 1085.

or

Mayer, T. (2003), Heftige Kritik an Duisenbergs neuem EZB-Modell, in: *Handelsblatt*, 25.02.2003, p. 24.

### 1.11.4 Contributions in collected editions

Contributions in collected editions should be captured with the name of the author, the publication year, the title of the article, the name of the publisher of the collected edition (*introduced with "in:"* and added with "*(Publ.)*"), the title of the collected edition (*italic, cursive*), the place of publication and the page number. With more than three publishers, you should only name the first three and summarize further ones with "*et al.*".

EXAMPLE:

Ohlin, B. (1991), The Theory of Trade, in: Flam, H., Flanders, M. J. (Publ.), *Heckscher-Ohlin Trade Theory*, MIT Press, p. 71 - 214.

### 1.11.5 Internet sources

Internet sources need to refer to the information required above (if possible) as well as to the internet address (underlined) together with the date of access. Make sure that the documents are actually accessible by entering the internet address into the browser.

**EXAMPLE:**

Rave, T. (2005), Urban Congestion Pricing – Economists and Practitioners Join Hands, *CESifo DICE Report* 3/2005, p. 3 – 4, <http://www.cesifo-group.de/pls/guestci/DOWNLOAD/CESIFO%20DICE%20REPORT%202005/CESIFO%20DICE%20REPORT%203/2005/DICEREPORT305-FORUM1.PDF>, accessed on 05.12.2005.

## 2 Spelling and style

Regardless of the criteria which are important from a substantive point of view, you must always pay attention to the formal criteria. Together with the content, the style and the mastering of the rules of grammar are evaluated. A scientific work requires adequate rigor regarding the style. Striking or vulgar-journalistic expressions are frowned upon. Nevertheless, the “readability” of your work has to be guaranteed and a cumbersome style with too long sentences should be avoided. Regarding the mastery of the language rules, reference should be made to pertinent lexicons.

Before handing in, the **work must be proofread to identify misspelling and punctuation mistakes**. The compliance of the language rules and a correct spelling indicates whether an author has made her/his work with the necessary care. Anyone could make careless mistakes which are forgiven. What is unacceptable, however, is the accumulation of spelling and punctuation mistakes.

## 3 Explanatory notes for the content

### 3.1 Focus

A main part of scientific working is to give an independent containment of the object of investigation and to search for a central research question. Get an overview of the state of research on this topic. The title could be changed in justified cases but this measure should be avoided.

### 3.2 Content of the topic

According to experience, it is difficult to implement their own thinking into their first seminar papers. Capture the current state of research on this topic, summarize it and stress the differences/similarities of different pieces of work. In a literature review, the own scientific achievement is to sight the relevant literature and to bring together different aspects from various studies.

You should only go into issues in your work that you have understood by yourself. Anything else leads to an inaccurate or superficial representation. The representation needs to be in your own words; a literal transfer of foreign texts is not adequate. Furthermore, the work cannot be a sequence of statements and results, but all relevant connections/relations need to be causally illustrated.

### 3.3 Literature

The author of a good thesis identified the relevant literature and understood the key aspects to present them in a structured and understandable way. The possible given literature of the chair forms the basis of your work. However, the used literature needs to outrun the given literature widely. A self-contained literature search is warranted.<sup>4</sup>

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<sup>4</sup> For example in data banks like ECONIS, IDEAS/RePEc, etc.

Educational books are a good start into a topic. They are only citable if they contain further scientific presentations. **Knowledge from educational books can usually be assumed to be known in the case of a scientific work so the representation and citation of such works are superfluous.**

The search for academic papers in peer-reviewed journals or scientific monographs is of primary importance for your thesis. Daily or weekly newspapers and other sources should only be cited if their information is unique and of extraordinary relevance for your work. Lecture notes or tutorial papers cannot be cited. Popular scientific sources (e.g., Wikipedia, Brockhaus) should be avoided.

## **4 Specific details for bachelor- and master thesis**

### **4.1 Content**

A bachelor or master thesis is more than a long seminar paper. More emphasis is placed on an extensive representation of the literature on the topic. Especially, incorporation the current state of research is important. Usually, this requires reading journal articles (not only German ones) since books usually do not reflect the current state of research. Moreover, bachelor and master theses require own scientific work. In a literature review, the own scientific work consists of identifying and reading current research and of giving a structured and comprehensive overview, which discerns the similarities and differences between approaches.

### **4.2 Supervision**

You can influence the intensity of supervision by the chair. After diving into the literature and before starting to write up your thesis, speak with your tutor and present the structure of your thesis. In the elaboration phase, you can consult the chair to clarify central questions.

Keep in mind that, besides the criteria laid out above, the autonomy plays a role for the evaluation of your work. In the case of extraordinary intensive advice (this includes consultations via email), stricter standards are applied than for largely independent work. The idea of letting every thought be approved by your tutor does not always pay off.

### **4.3 More information**

Please take note of the information on the consequences of plagiarism and of the templates provided for the title page of seminar, bachelor and master theses.

## **5 Bibliography**

Theisen, M. R. (2013). *Wissenschaftliches Arbeiten: Erfolgreich bei Bachelor-und Masterarbeit*. Vahlen.



## 6 Appendix: List of Content (Example)

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Formalities</b> .....                                      | <b>1</b>  |
| 1.1      | Number of Pages .....   | 1         |
| 1.2      | Submission .....  | 1         |
| 1.3      | Formal construction and typography .....                      | 2         |
| 1.4      | Table of contents .....                                       | 2         |
| 1.5      | Figures and tables .....                                      | 3         |
| 1.6      | Abbreviations .....   | 4         |
| 1.7      | Symbols and formula .....                                     | 4         |
| 1.8      | Footnotes .....   | 4         |
| 1.9      | Appendix .....  | 5         |
| 1.10     | Dealing with sources .....                                    | 5         |
| 1.10.1   | Multi-page quotes .....                                       | 5         |
| 1.10.2   | Primary and secondary sources .....                           | 6         |
| 1.10.3   | Sources of law .....  | 6         |
| 1.10.4   | Author and the year of publication .....                      | 6         |
| 1.10.5   | Literal and logical citations .....                           | 8         |
| 1.10.6   | Figures and tables .....                                      | 8         |
| 1.11     | Bibliography .....  | 8         |
| 1.11.1   | Monograph .....   | 9         |
| 1.11.2   | Discussion papers, working papers .....                       | 9         |
| 1.11.3   | Newspaper articles .....                                      | 9         |
| 1.11.4   | Contributions in collected editions .....                     | 9         |
| 1.11.5   | Internet sources .....  | 9         |
| <b>2</b> | <b>Spelling and style</b> .....                               | <b>10</b> |
| <b>3</b> | <b>Explanatory notes for the content</b> .....                | <b>10</b> |
| 3.1      | Focus .....   | 10        |
| 3.2      | Content of the topic .....                                    | 10        |
| 3.3      | Literature .....  | 10        |
| <b>4</b> | <b>Specific details for bachelor- and master thesis</b> ..... | <b>11</b> |
| 4.1      | Content .....   | 11        |
| 4.2      | Supervision .....   | 11        |
| 4.3      | More information .....  | 11        |
| <b>5</b> | <b>Bibliography</b> .....                                     | <b>11</b> |
| <b>6</b> | <b>Appendix</b> .....   | <b>12</b> |