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# The thesis as a project

Binding Handout for the  
study programs of the  
Bayreuth Department of Geography

(the handbook might be also used in associated programmes such as Development  
Studies)

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## 1. HOW TO USE THIS HANDOUT?

Many Geography departments, individual Geography professorships, and book publications these days offer handouts on how to write theses. Against this background, this document should be seen as a “**meta-document**” that attempts to provide some orientation in this landscape. The challenge of such a short “how-to-guide” is to do justice to **different conventions** concerning the preparation of theses in the field of Human Geography and Physical Geography, as well as to take into account the fact that, despite numerous guidelines, there are **certain degrees of freedom** in the preparation of theses, for example with regard to **citation rules**. Ultimately, the **uniformity of the approach** within a thesis, the **safeguarding of what has been written** by established procedures, and by the use of certain sources and **comprehensibility of the approach** are more important for the readers than a **standard** set in stone.

## 2. WHAT CAN I FIND IN THIS HANDOUT, AND WHAT SOMEWHERE ELSE?

In this guide, reference is repeatedly made to other publications. A good introduction to writing scientific papers with a focus on Human Geography is [the handout of the Chair of Cultural Geography at the University of Bayreuth](#). In addition, you can also use the reader “[Wissenschaftliches Arbeiten](#)” of the [Department of Geography at the University of Erlangen-Nuremberg](#).<sup>1</sup> The latter also provides advice on how to proceed when preparing presentations or protocols.

[The reader of the Department of Geography of the University of Graz](#) covers the needs of [Physical Geography](#) even more. The advantage of this reader is that it contains not only the classical instructions for how to work on a thesis (e.g., topic identification or content-related formal structure) but also offers **explanations for the correct use of maps, figures and illustrations**. In addition, the reader provides important information on the use of the knowledge management and literature administration software **CITAVI** (see point 4). In all handouts, however, you can find valuable information on **finding topics and sources, structuring your thesis, developing a research question, and following conventions of citation**.

This handout refers partly to these handouts in general or “economically” refers directly to certain recommendations offered therein. Beyond that, however, this guide aims at connecting the **practical aspects of the organization of the research process** – including

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<sup>1</sup> This, same as some of the other links, is provided only in German. English-speakers may refer to Booth et al. (2008) listed in the bibliography.

the “**output**” (your work!) – with the **formal guidelines for correct scholarly work**. Furthermore, it discusses often-neglected questions about the **registration and evaluation of thesis**.

### 3. HOW DO I FIND A TOPIC?

Existing handouts provide you with a good overview of **topic identification**. In this section, we illustrate this with practical examples (from an explicitly Human Geography perspective however).

Regardless of the particular handout, the following **five questions** are fundamentally important for you to clarify:

1. What could be a **topic worth pursuing** that **I find interesting**?
2. In **which geographical debates** is my topic embedded?
3. What **contribution** can my project make to these **scientific debates**?
4. Where do I find **relevant literature** and how do I identify **important authors**?
5. How do I **keep track** of the **literature**?

It is often the case that theses in Physical Geography are building blocks for larger research projects, which already pre-structures one’s own choice of a topic. In principal, this can also be the case in Human Geography, but generally is not. In any case, it makes sense to “synchronize” the focus of your own work with the research interests of your supervisor.

A **first entry into the topic** can be searching for keywords in the [WILEY Encyclopedia of Geography](#), in the [International Encyclopedia of Human Geography](#), in [GEODOK](#), in the [ISI WEB of Science](#) or at [SCOPUS](#). Except for GEODOK, you must be logged in to all of these services on the university network. **Handbooks, compilations and textbooks** (e.g., Gebhardt et al. 2020 or Gregory et al. 2009) also provide a good introduction to selected topics. You will usually get up-to-date information on these topics in seminars and lectures.

It is also worthwhile to search the **most important journals in Human and Physical Geography**. The reach of a journal is often determined by the so-called **impact factor**. This is by no means an uncontroversial measure, but the journals listed here are of high quality.

Physical geography	Impact Factor
ISPRS Journal of Photogrammetry and Remote Sensing	11.909
Landscape and Urban Planning	8.790
Global Ecology and Biogeography	6.619
Cryosphere	5.805
Journal of Biogeography	4.808
Global and Planetary Change	4.736
Landscape Ecology	4.732
International Journal of Digital Earth	4.606
Geomorphology	4.406
Quaternary Science Reviews	4.163
Earth Surface Dynamics	3.849
Earth Surface Processes and Landforms	3.754
Progress in Physical Geography / Earth and Environment	3.712
Anthropocene	3.682
Quaternary Geochronology	2.801
Human geography	Impact Factor
Global Environmental Change / Human and Policy Dimensions	10.629
Landscape and Urban Planning	8.119
Progress in Human Geography	7.602
Computers Environment and Urban Systems	6.810
Journal of Economic Geography	6.190
Journal of Transport Geography	5.899
Economic Geography	5.465
Regional Studies	5.430
Dialogues in Human Geography	5.293
Journal of Rural Studies	5.172
International Journal of Geographical Information Science	5.152
Applied Geography	5.041
Antipode	4.246
Urban Geography	4.031
Transactions of the Institute of British Geographers	3.445

**Table 1:** Geography journals (authors' compilation, 02/2023)

You can also consult the **recognized journals of the Association of Geographers at German Universities (VGDH)**. The latter also lists subject didactic journals on its site.

Relevant German-language journals according to VGDH
Berichte. Geographie und Landeskunde (until 2012: Berichte zur deutschen Landeskunde)
Cartographica Helvetica
Die Erde
disP – The Planning Review
E&G Quaternary Science Journal. Eiszeitalter und Gegenwart
Erdkunde
Europa Regional
Geographica Helvetica
Geographische Rundschau
Geographische Zeitschrift
GEO-ÖKO
KN – Journal of Cartography and Geographic Information. Kartographische Nachrichten
Mitteilungen der Österreichischen Geographischen Gesellschaft
Raumforschung und Raumordnung / Spatial Research and Planning
Sub\urban. zeitschrift für kritische stadtforschung
Zeitschrift für Geomorphologie
Zeitschrift für Tourismuswissenschaft (de Gruyter)
ZFW – Advances in Economic Geography (until 2021: Zeitschrift für Wirtschaftsgeographie)

**Table 2:** Relevant German-language journals according to VGDH (<https://vgdh.geographie.de/anerkannte-geographie-fachzeitschriften/>, 20/12/2020)

Other **important Geography journals** can be found [here](#), where you can also search for the **most recent publications on a topic**.

It is important to keep in mind what **are authoritative scientific sources and what are not!**

Type of source	Explanation
a) Peer-reviewed journal articles, published by reputable publishers	...are usually the basis of scientific work
b) Handbooks and textbooks as well as specialized encyclopedias published by reputable publishers	...are usually used for introduction and in addition
c) Non-reviewed journal articles, published by less recognized publishers	...can be used as a source of scientific work – however, the critical distance should be greater than with a) and b)
d) Plans, reports, documentation, statistics published by public organizations.	...can be used as a data source, but critical distance is always needed
e) Newspaper articles	...are usually not to be used as a source of scientific work (if they are, critical distance is required), but often become an object of scientific analysis
f) School books	...are usually not to be used as a source of scientific work (if they are, a critical distance is required), but often become an object of scientific analysis
g) Wikipedia and other non-specialized reference works	Are not acceptable as a source of scientific work, but can be used for the introduction and preparation of scientific work

**Table 3:** Simplified overview table for the use of different sources (modified after Füller et al. 2020: 14-15)

The result of your topic identification could be, for example, a **mind map** on the topic “How do I keep track of the literature?”.

#### 4. WHAT SHOULD I KEEP IN MIND REGARDING MY RESEARCH PROBLEM?

Once you have narrowed down your topic, move on to the question. You would want neither of these two to be too broad. In the end, the **relevance of the question** (*significance*) and what you ultimately **want to achieve** by **answering the question** (*application*) must be clear.



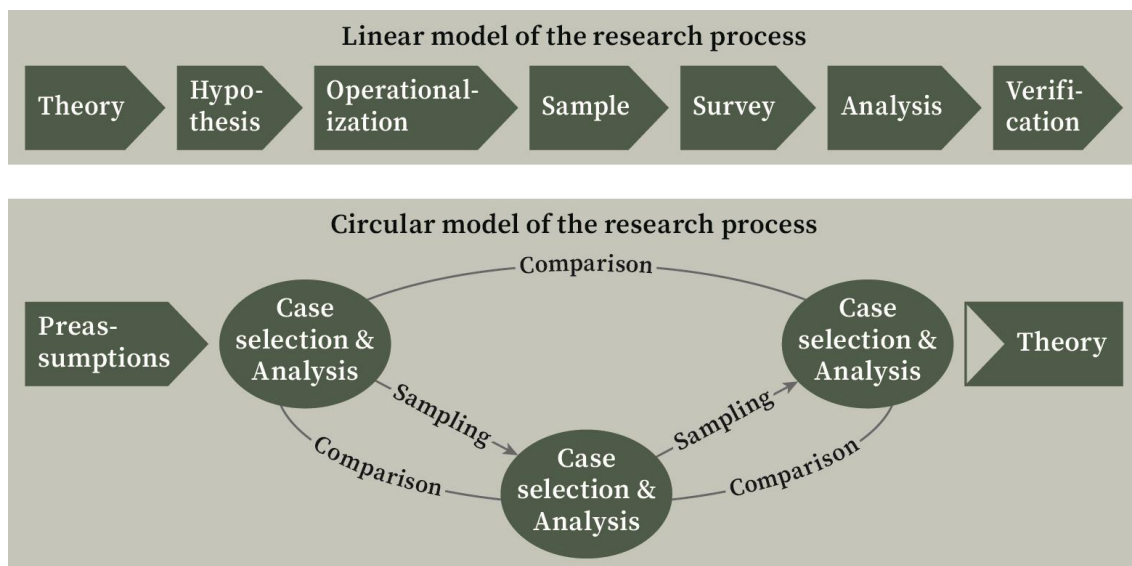


**Figure 1:** (Your) Central questions in the research process (modified after Booth et al. 2008: 43)

The research process “in situ” is of course **even more complex**. Central dimensions are discussed in the other guides cited here and in established method books (for Human Geography, see Mattisek et al. 2013 or Hays 2018).

However, you should take away **four things** from this quick guide:

*First*, qualitative and quantitative research have **different process logics**. Although a quantitative social science or Human Geography approach and a Physical Geography approach have numerous overlaps (both sometimes work with large data sets), they sometimes differ in the **detailed organization** or in the **methodology of scientific work** (e.g., in the importance of experiments and laboratory activities in Physical Geography).

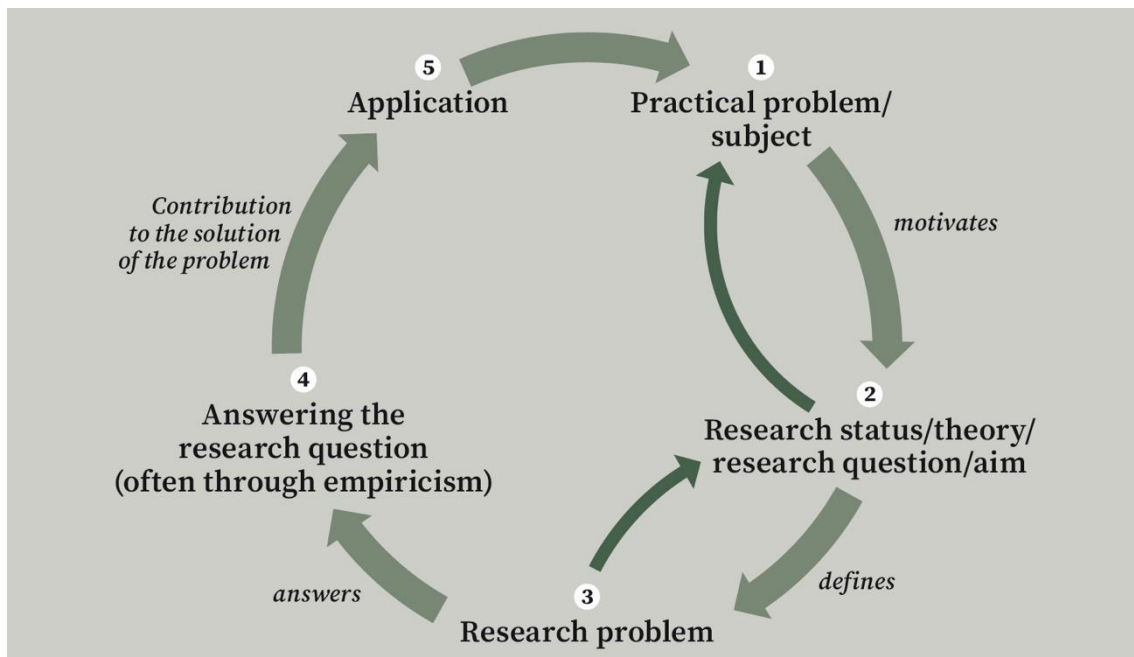


**Figure 2:** Process logics of quantitative and qualitative research (Flick 2009) Source: Flick 2009

*Second*, you need to understand the **steps of any research process**. Expect to find and combine different information from different sources. In this sense, the otherwise helpful didactic scheme in Fig. 2 obscures **important stages and of the research process**, as well as **critical feedback loops that should also have their place in a quantitative research design** as shown in Fig. 3. Note that the term **research problem** has a positive



connotation here. It describes the complex that you want to “work through”. Your **research goal** indicates what you want to achieve in the course of this work. **Research questions** help you to approach the problem. Note that a practical problem can also be a problem of theoretical nature.



**Figure 3:** The research process and its feedback loops (own design based on Booth et al. 2006: 58)

*Third*, make sure you have a **good and original research question**.

Good research questions...

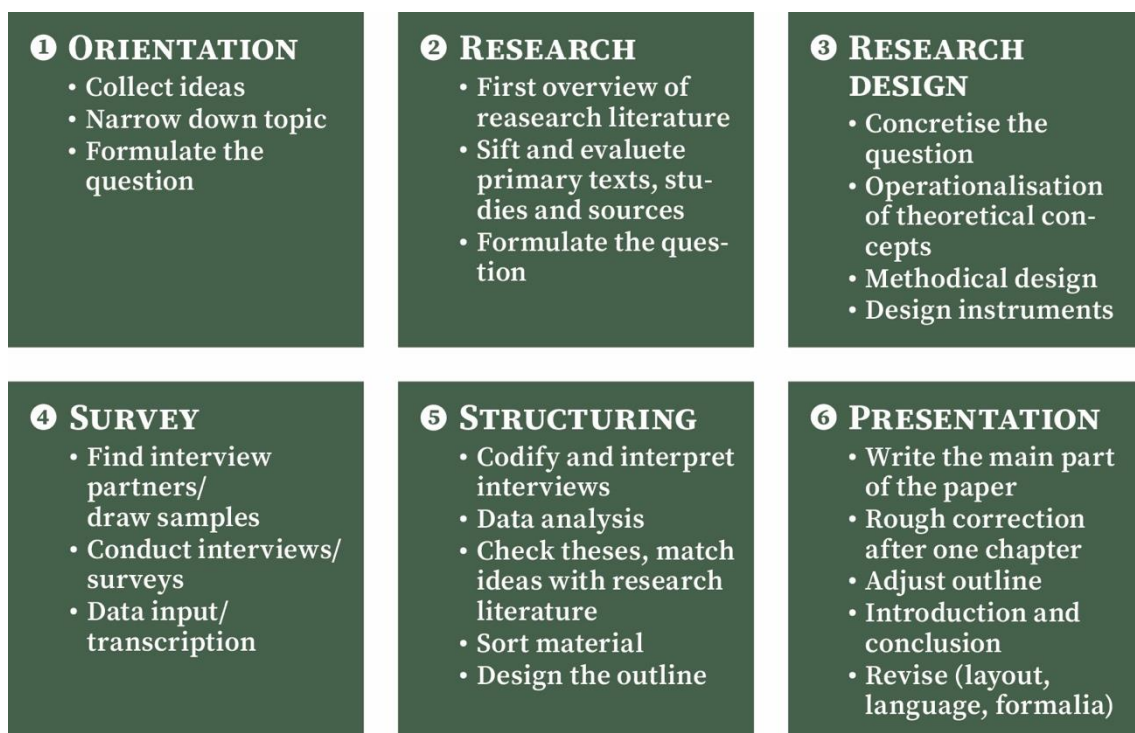
- ... are questions with **relevance** and **problem orientation with regard to** society, science and practice.
- ... are questions that can be **answered satisfactorily** with the specific **contextual conditions** (e.g., duration, prior knowledge, knowledge of methods, resources).
- ... do **not** make **false claims**.
- ....are **consistent** and **logical**.
- ....are questions that (at first glance) are **not evident** and **immediately** answerable.
- ... are questions that are **novel** and **perhaps have NEVER** been asked before.
- ....are questions that **move YOU**.

**BUT:** Research questions do not exist in a vacuum, but **develop in the first place at/in the social world and its relation to the “environment”** in which we immerse ourselves

out of research interest. This is equally true for Physical and Human Geography. You have a **particularly original research question** if one or more of these conditions apply:

- The research question has been **untested or unexplored**.
- The research question takes a view from a **new angle** (e.g., a novel research method or theory).
- The research question **transfers new approaches, methods or insights** from other disciplines.
- The research question applies an established method in a **new environment** (e.g., new target group or new historical-geographical context).
- The research question **combines existing results** for the first time in a **new way**.
- The research question **re-interprets** existing empirical material.
- The research question **continues** previously unfinished work.

*Fourth*, the questioning is always **part of a larger project** that **you need to manage yourself**. This requires **planning and coordination**. Fig. 5 shows an example of this for a Human Geography project.



**Figure 4:** Managing writing processes (Boeckler 2013, Seminar “Theses as a Project”, Goethe University Frankfurt)

In **Physical Geography** (or other research fields with a natural science research culture), theses are usually based on **one** (or a few) concrete **hypothesis(es)**. Such a hypothesis should make a **specific statement**, which results conclusively after the textual preparation of the topic and the corresponding literature, i.e., can be conveyed well. However, such a hypothesis must not only be **reasonable and innovative**, i.e., it must not simply repeat what is already known, but it must also be open to results. In short, **it must be falsifiable**. If such a hypothesis **was constructed and communicated well**, then from this stage the **success of your work is almost guaranteed** because if the statement should be confirmed by your work, it was obviously reasonable to assume this. And if the hypothesis should **not be confirmed**, this is even better, because with an **unexpected result**, one has **contributed even more to advancing existing knowledge**. The reasonable assumption was obviously **not generally valid**.

It is important that the **methods** you choose are oriented to the question or the hypothesis and not the other way around, because after all your thesis is about a scientific question and **not a purely technical exercise**. The methods used must above **all be suitable for finding an answer** to the question posed or for supporting or refuting the statement made. The **methodological design** of a study must guarantee this, for example via a sufficient population of data or via the geographic spectrum of the same. If this is fulfilled, **nothing stands in the way of successful thesis**.

## 5. WHAT SHOULD I KEEP IN MIND WHEN CITING?

**Uniformity** within a text, **exact assignment**, and **comprehensibility for the reader** are decisive. You can use the different **handouts** already cited as a **guide**. However, you can also simply set the CITAVI **basic style** or the **more widely used Harvard citation style** in CITAVI, which will then be adopted for all your CITAVI entries. However, such entries must always be **proofread again!**

The University of Bayreuth offers the program CITAVI for [free download](#). It is not only a literature management software that saves you a lot of time (e.g., by importing literature through DOI numbers), but it also has a **knowledge management function that** allows you to catalog **direct and indirect citations** from texts. Unfortunately, Mac users can only resort to less powerful programs such as **Zotero** or **Mendeley**.

Finally, some **important basics about working with sources** that are often forgotten:

- **Backing up** all statements with sources (not gut feelings)
- **Listing all sources** found in the text in the bibliography (no less and no more)
- **Including a reference** to the source for **each paragraph** of text (note that there may be exceptions to this rule of thumb)

- Adopting a **consistent and accepted** citation style (e.g., Harvard -> (Author 2019: Page)).
- **Citing** all used **internet sources** must also be cited (website 2019: par.). That means there should be no hyperlinks (www.source.de) in the text
- **Situating sources and arguments** (in particular debates or schools of thought)
- Starting from **scholarly debates** (not grey literature etc.), meaning that the central anchor point of your work in Physical or Human Geography should be just such debates! In case they do not exist, this fact should be taken up and classified accordingly (Why is there this gap in the first place? Is it worthwhile for geography to work on this topic? What can geographical perspectives contribute to the subject matter?)
- Introducing **central concepts** with the help of geographical literature (if available)
- Using **journal articles in recognized professional journals** (“Journals”) as central sources in the scientific enterprise (see above)
- Use **Wikipedia** and **other websites** only for first research steps, not as sources for the thesis

## 6. HOW DO I CREATE AN EXPOSÉ/SYNOPSIS?

As in other matters, you will also find some information about exposés in existing handouts.

The exact scope should be discussed with the supervisor, but here are some rough guidelines for master’s theses (which also apply to bachelor’s theses, whose length is generally expected to be shorter):

- **Introduction**: Present the topic, phenomenon or problem (What is the topic and from what does the importance of this topic derive? What is your relation to the topic?) (approx. 1 page).
- **State of research**: Outline the state of research on the topic to date (Are there already studies on the topic or related issues and what do they say? Where are important open questions? Indicate the most important publications on the topic) (approx. 2 pages).
- **Theoretical background**: Outline the theoretical/methodological background or approach of your study (central guiding questions for you: What theories are available to address the topic? What do these theories say and why are they particularly appropriate? Indication of the most important theoretical literature) (approx. 2 pages).
- **Question**: Derive your own question depending on the state of research and theory and formulate sub-questions (central guiding questions for you: How do I derive my own questions with reference to theory and the state of research? How do I break

down the overarching question into sub-questions that can be addressed)? (approx. 1 page).

- Derive the **methodological procedure** from the research question and justify the selection of methods with relevant literature. Guiding questions can be: “How do I methodically implement my research question and sub-questions? Why do I choose certain methods and not others?” Also include the most important methodological literature (approx. 1 page). If you are writing a theoretically based paper, this section should explain how you evaluate and systematize theoretical approaches and findings. (Central guiding questions for you: What are your guiding questions developed in advance? How do you intend to answer them?)
- **Bibliography** (please already do this correctly in the synopsis!)

The **thesis** should only be **registered** after the supervisor has approved the synopsis.

**Note that we usually do not expect Bachelor’s theses to offer an original contribution. While some may be able to do so, many may not. We are happy with you at least adding something new to the debate.**

## 7. WHAT DO I NEED TO CONSIDER WHEN REGISTERING MY THESIS?

In general, you should register your thesis using Campus Online/cmlife. Before doing so, however, make sure to get in contact with the respective professorship via your supervisor. The registrar’s office then confirms your registration. Note, however, that the time available to you for completing your thesis may differ significantly based on your program.

You can find further information on how to register your thesis in different programs at the Bayreuth Institute of Geography website [here](#). Where appropriate, you can also consult **guidelines** of similar programs or ask your supervisor or the responsible program coordinator for further instruction.

General information is available in both [German](#) and [English](#) from the registrar’s office. The office also offers information on how to **submit** your thesis or on how to request an **extension**.

## 8. SOME NOTES ON LANGUAGE, FORMAT AND SCOPE

In accordance with the **Guidelines for Gender Sensitive Language of the University of Bayreuth**, it is recommended to write theses in **gender-sensitive language** if you write your thesis in German. Guidance on this can be found on page 5 [here](#) and [here](#) (in German). You may find these ways of phrasing **unusual** at first, but over time you will find

many different ways **to express yourself differently** without disrupting the flow of your reading. This ensures that **all potential readers**, including **supervisors**, feel included by the language used.

Further important notes on the **formal structure of the content of the paper** can be found on pages 6-7 [here](#).

In terms of **length**, a **bachelor's thesis** should be 50 pages max., a **master's thesis** should be around 80-90 pages, with: 1.5-line spacing, margins Top: 2.5cm | Bottom: 2cm | Left: 3cm | Right: 3cm and font Arial 11Pt, Calibri 11 Pt or Times New Roman 12. For further guidance on text layout (including title page layout), please refer to the other handouts cited here. Please make sure you do **not** have **too many subsections** (e.g., 1.2.2.1) so as to not interrupt the flow of the text too much.

## 9. HOW WILL MY THESIS BE EVALUATED?

The following list presents central assessment dimensions of a scientific paper. We have refrained from giving weighted sub-grades here, since individual dimensions are in part interdependent and this would give the false impression that each dimension can be graded in isolation. However, the correction of your work is ultimately at the discretion of the person correcting it.

- 1) Is the work **formally** correct? (References, correct citation, bibliography)
- 2) What is the quality of the **structure**? (Is there a common thread? Are bridges built between sections? Is the argumentation coherent? Are the individual parts of the paper in a comprehensible relationship?)
- 3) Is the **subject matter** clearly delimited?
- 4) Has the student succeeded in deriving a suitable and feasible **research question and hypotheses**? (Positioning of the work in the scientific debate; justified derivation of the research question/hypothesis; quality, feasibility and, if applicable, operationalization?)
- 5) Is the quality of the **language** appropriate? (Sentence structure, grammar, spelling, style, technical language)
- 6) Is the understanding and application of **theory** appropriate? (Is sufficient reference made to theoretical concepts in geography or social sciences or natural sciences? Use of appropriate technical terms?)
- 7) If applicable, are the **methods** suitable and well implemented? (Are they comprehensible and appropriate to the subject matter or research question? Are survey and evaluation procedures or methods of data analysis/modeling sufficiently documented and correctly carried out? If applicable, are field access and sample/case selection sufficiently documented?)



- 8) Is the **content** of sufficient quality? (Substantiation of the arguments by empiricism/theory? Quality of the review of the cited literature? Quality of discussion of empirical research results? Quality of graphs, statistics, etc.?)
- 9) Is the **bibliography** complete? (Has the relevant literature been recorded?)
- 10) Does the **conclusion** round off the thesis convincingly? (does the conclusion deal with the research question again or offer a research outlook?)

## 10. PLAGIARISM

...invariably result in **legal consequences**. You can find more information on the subject of plagiarism [here](#) (pp. 66-72) and [here](#) (pp. 17-18). Note that **unmarked translations and the use of artificial intelligence generated text** are also considered plagiarism!

## 11. WHAT SHOULD I CHECK AGAIN AT THE END?

Be sure to review this checklist and check each item during your work process and before submitting your paper.

- Have I **clearly narrowed down** my **topic**?
- Have I made the **relevance of the topic** clear?
- Do I have a **clearly formulated question** that I want to work on? (no yes/no questions)
- Have I **reviewed current literature** (~texts from 2012)? (except for historical or very basic topics)?
- Have I **reviewed relevant journal articles**? (cf. list "Recognized journals")
- Have I **clearly documented** my **methods** and am I, for example, **reflective** in dealing with issues of **data quality, field access, sampling, and the scope of** my findings?
- Have I **cited** and **formatted the sources consistently**?
- Have I **proofread my work thoroughly**?
- Have I **formatted** my work **consistently** according to the **specifications**?
- Have I included all **necessary additional information** about the paper (e.g., transcripts, data sources, etc., in the appendix)?
- Have I **saved** my work **in PDF format**, named the document according to the Name\_Year\_Title specification and sent it to the supervisor?

## 12. CITED LITERATURE AND FURTHER READING

This list includes only such sources which either deal with scientific work in general or offer useful methodological information.

The best and most up-to-date reference book in Geography as a whole currently is:

Clifford, Nicholas J.; Cope, Meghan; Gillespie, Thomas (Ed.) (2023): Key Methods in Geography. Los Angeles, Sage.

A great tool box for visualizing qualitative research can be found here: <https://visqual.leibniz-ifl-projekte.de/methodbox/> (23.04.2024).

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Booth, Wayne; Colomb, Gregory; Williams, Joseph (2008): The Craft of Research. 3rd Edition. Chicago: University of Chicago Press.

Desai, Vandana; Potter, Robert B. (Hg.) (2006): Doing Development Research. London: Sage.

Gregory, Derek; Johnston, Ron; Pratt, Geraldine; Watts, Michael; Whatmore, Sarah (Ed.) (2009): The Dictionary of Human Geography. 5<sup>th</sup> Edition. Chichester: Wiley-Blackwell.

Hammett, Daniel; Twyman, Chasca; Graham, Mark (2015): Research and Fieldwork in Development. London: Routledge.

Hay, Iain (2016): Qualitative Research Methods in Human Geography. 4<sup>th</sup> Edition. Don Mills, Ontario: Oxford University Press.

Leavy, Patricia; Harris, Anne (2018): Contemporary Feminist Research from Theory to Practice. New York: Guilford Publications.

Mattisek, Annika; Pfaffenbach, Carmella; Reuber, Paul (2013): Methode der empirischen Humangeographie. Braunschweig: Westermann Schulbuchverlag.

Rogerson, Peter (2015): Statistical Methods for Geography. A Student's Guide. 4th Edition. Thousand Oaks: Sage publications.

Ritchie, Jane; Lewis, Jane (Ed.) (2014): Qualitative Research Practice. A guide for Social science students and researchers. 2nd Edition. London: Sage.

Schwabish, Jonathan A. (2021): Better Data Visualizations. A Guide for Scholars, Researchers, and Wonks. New York: Columbia University Press

Small, Mario Luis; Calarco, Jessica McCrory (2022): Qualitative Literacy. A Guide to Evaluating Ethnographic and Interview research. Oakland, California: University of California Press.

Smith, Linda Tuhiwai (2012): Decolonizing methodologies. Research and Indigenous Peoples. 2. Auflage. London: Zed.

