

## Abstract

After many decades of scientific writing and years of lectures on scientific writing, the author of this work (textbook and exercise book) sees his task in presenting a guide to plagiarism-free scientific work by deduction (= reasoning), which is written in the style of a scientific work for illustration purposes. Because there are many books on scientific work, but only this one on scientific work through plagiarism-free deduction. The nine special features of this book (unique selling points) are:

1. teaching of a deductive style of writing,
2. teaching of methodological work,
3. teaching of plagiarism-free writing,
4. teaching of IT implementation of the scientific work,
5. teaching of the (German) tax deductibility of training costs,
6. teaching of Albert Einstein as a ingenious example,
7. teaching the aim of scientific work,
8. teaching the creation of scientific attention and
9. exercise book.

Therefore, the central question arises as to how through plagiarism-free deduction (= reasoning) it can be written scientifically. The danger of realizing plagiarism is greatest when someone produces a purely text-scientific work and is not guided by their own red thread, but by someone else's texts. However, if scientific methods are used, the risk of plagiarism is minimal, because the red thread is determined by these methods.

The scientific work is characterized in particular by a scientific-deductive structure and style of writing, in which each statement is deducted (= reasoned) from the previous one. With respect to plagiarism-free quotation, it is particularly important to note that direct (literal) quotations are started and ended with quotation marks and the footnote begins – without the prefix “Cf.” or “S.” – directly with the surname of the quoted author, while indirect (corresponding) quotations are started and ended without quotation marks and the footnote begins with “Cf.” or “S.”. In the case of tables and figures in the text, the reference to the source begins with “Source ...”. In this way, through plagiarism-free deduction (= reasoning) it can be written scientifically, by either following one's own red thread scientifically in compliance with the citation rules or by following a scientific methodology of one's own subject area.

**November 2022**

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# 1. Introduction

**Plagiarism** is the **unlawful appropriation of someone else's thoughts**, ideas, etc. in a scientific or artistic field **and their publication without citing them**. This constitutes theft of intellectual property. **Plagiarism usually violates examination regulations and employment contracts**.

In the Merkel era, numerous ministers fell **victim to so-called plagiarism hunters**. Plagiarism hunters are appraisers who go in search of plagiarism – **often for a fee from interested parties**.

The **loss of the doctoral degree due to plagiarism** often means the **immediate end of one's career**, because the position as a minister, the honorary professorship, the public reputation and thus re-election as a member of parliament are often lost with the doctoral degree.

But that's just the tip of the iceberg. **Anyone who acquires academic degrees through plagiarism** and later acquires a prominent professional position **makes themselves vulnerable to plagiarism hunters**.

Many blame the author of the scientific work for plagiarism. According to the view represented here, the **supervising professors are at least partly to blame**, because they should have taught **the avoidance of plagiarism and controlled plagiarism better**.

After many decades of scientific writing and years of lectures on scientific writing, the author of this work (textbook and exercise book) sees his task in presenting a **guide to plagiarism-free scientific work by deduction** (= reasoning), which is written in the style of a scientific work for illustration purposes. Because there are many books on scientific work, **but only this one on scientific work through plagiarism-free deduction**. **The nine special features of this book (unique selling points) are:**

1. teaching of a deductive style of writing,
2. teaching of methodological work,
3. teaching of plagiarism-free writing,
4. teaching of IT implementation of the scientific work,
5. teaching of the (German) tax deductibility of training costs,
6. teaching of Albert Einstein as a ingenious example,
7. teaching the aim of scientific work,
8. teaching the creation of scientific attention and
9. exercise book.

The following Fig. 4 illustrates the nine special features (unique selling points) of this work:

|  |  |
|--|--|
| <p><b>1. Teaching of a deductive style of writing</b></p> <ul style="list-style-type: none"> <li>• The scientific work is strictly logical. Each statement is deducted (= reasoned) from the previous one. The structure is deducted from the topic of the work.</li> <li>• The structure basically consists of five sections, an introduction, a basic part, two main parts and a summary. The structure is not fixed over time, but is dynamically adjusted as knowledge advances.</li> <li>• 8 wording examples are given.</li> </ul> | <p><b>2. Teaching of methodological work</b></p> <ul style="list-style-type: none"> <li>• 123 definitions for branch of science and scientific</li> <li>• Because the right scientific method is the surest way to avoid plagiarism and to find your own creative and imaginative approach to the topic – this should encourage scientific work with scientific methodology and at the same time to define.</li> </ul> |
|--|--|

|  |  |
|--|--|
| <p><b>3. Teaching of plagiarism-free writing</b></p> <ul style="list-style-type: none"> <li>• Avoiding plagiarism by following your own red thread, not someone else's texts</li> <li>• Avoiding plagiarism by following your own scientific methodology</li> </ul>  | <p><b>4. Teaching of IT implementation of the scientific work</b></p> <ul style="list-style-type: none"> <li>• 18 IT notes on the implementation of the scientific work</li> <li>• for the word processing program Microsoft Word</li> </ul>   |
| <p><b>5. Teaching of the (German) tax deductibility of training costs</b></p> <ul style="list-style-type: none"> <li>• Training costs are tax-deductible as expenses for your own professional training as part of the special expenses up to € 6,000 per calendar year (§ 10 Para. 1 No. 7 EStG).</li> <li>• Training costs, if they occur within the scope of the seven types of income, are tax-deductible without limit as income-related expenses or operating expenses.</li> </ul>   | <p><b>6. Teaching of Albert Einstein as ingenious example</b></p> <ul style="list-style-type: none"> <li>• Albert Einstein is considered the epitome of the researcher and genius. This book is dedicated to Albert Einstein, the creative, imaginative and brilliant example of all scientific work.</li> </ul> |
| <p><b>7. Teaching of the aim of scientific work</b></p> <p>The aim of scientific work is the valuable knowledge that can only be gained with passionate curiosity, imagination, creativity and precise observation.</p>  | <p><b>8. Teaching of creation of scientific attention</b></p> <p>Scientific attention is generated through the creation of new terms, new definitions, new (statistical) diagrams, new theories, laws or sciences as well as new (partial) sciences for one's own research.</p>                                  |
| <p><b>9. Exercise book</b></p> <p>This companion volume (exercise book) to the main volume Scientific work through plagiarism-free deduction contains questions and answers on the main volume, with which the pupils students/post-graduates can decisively deepen and consolidate what they have learned/about scientific work. The respective answer follows directly after the question, so the answer should be covered first. If the question is not answered correctly according to one's own assessment, it is noted on a list and repeated in the next round.</p> |  |

**Fig. 4:** Nine special features (unique selling points) of this work

Source: own representation

Therefore, the **central question** arises as to how through **plagiarism-free deduction** (= reasoning) it can be written scientifically. This results in the following **course of the investigation**: After the introduction, the basics of plagiarism-free scientific work are to be examined first. Based on this, the scientific work is to be characterized and systematized. Building on this, the citation method is to be presented as a central component of plagiarism-free scientific work. Finally, the **results of this work are to be summarized in theses**.

But first, the **basics of plagiarism-free scientific work** are to be examined.

## 2. Basics of plagiarism-free scientific work

### 2.1 Concept of plagiarism, its consequences and how to avoid it through deduction and scientific methods

#### 2.1.1 Overview

**Plagiarism** is the **unlawful appropriation of someone else's thoughts**, ideas, etc. in a scientific or artistic field **and their publication without citing them**.<sup>2</sup> This constitutes theft of intellectual property. **Plagiarism usually violates examination regulations and employment contracts.**

- **Writing note 01 text-scientific**

The danger of realizing plagiarism is greatest when someone produces a purely text-scientific work and is not guided by their own red thread, but by someone else's texts.

- **Writing note 02 methodological**

However, if scientific methods, e.g. empirical methods, mathematical-statistical forecasting methods, econometric methods or spreadsheet systems are used, the risk of plagiarism is minimal, because the red thread is determined by these methods.

- **Writing note 03 own branch of science**

Every author of a scientific work is therefore called upon to explore the possible scientific methodology in their own branch of science.

- **Writing note 04 alternative methodology:**

*Problems can never be solved with the same mindset that created them.*

Dr Albert Einstein

- **Writing note 05 all branches of science**

In addition, it is called upon to look through all branches of science and scientific methods of the subsequent systematization to see whether something is suitable for one's own scientific work.

The following Fig. 5 illustrates the connection between scientific work, scientific writing and scientific research:

|   |   |
|---|---|
| <b>Scientific work</b><br>• generic term<br>• scientific writing & research   |   |
| <b>Scientific writing</b> <ul style="list-style-type: none"> <li>• emphasis on the formal aspects</li> <li>• rather text-scientifically and thus</li> <li>• more likely to generate plagiarism</li> </ul> | <b>Scientific research</b> <ul style="list-style-type: none"> <li>• also, methodologically and with it</li> <li>• rather avoiding plagiarism</li> <li>• own creative and imaginative access to the topic</li> </ul> |
| <b>Aim valuable knowledge</b><br>Because the aim of scientific work is the valuable knowledge that can only be gained with passionate curiosity, imagination, creativity and close observation.           |   |

**Fig. 5** Connection between scientific work, scientific writing and scientific research

**Source: own representation**

#### 2.1.2 Finding the right scientific method

In addition, Wikipedia and others list numerous entries for the keywords **branch of science** and **scientific method**, which are presented here in alphabetical order, because **the right scientific method is the surest way to avoid plagiarism** and to find your **own creative and imaginative approach to the topic – this is**

<sup>2</sup> Cf. NN., Plagiarism, 2022/02.

**losses.** According to this, the **loss deduction** (§ 10d EStG)<sup>136</sup> can be applied for in assessment periods with a positive total amount of income (**loss carry-back or carry-forward**).

**It follows that the risk of realizing plagiarism is greatest when someone is doing a purely textual work and is not guided by their own red thread, but by someone else's texts. However, if scientific methods are used, the risk of plagiarism is minimal, because the red thread is determined by these methods.**

## 3. The scientific work

### 3.1 Aim of scientific work

Dr Albert Einstein received his doctorate with a dissertation of only 20 pages.<sup>137</sup>

Because the quality of a book is not measured by the number of pages it contains, but by whether it is valuable or not. Because quality comes before quantity.

Because the **aim of scientific work is the valuable knowledge** that can only be gained with passionate curiosity, imagination, creativity and close observation.

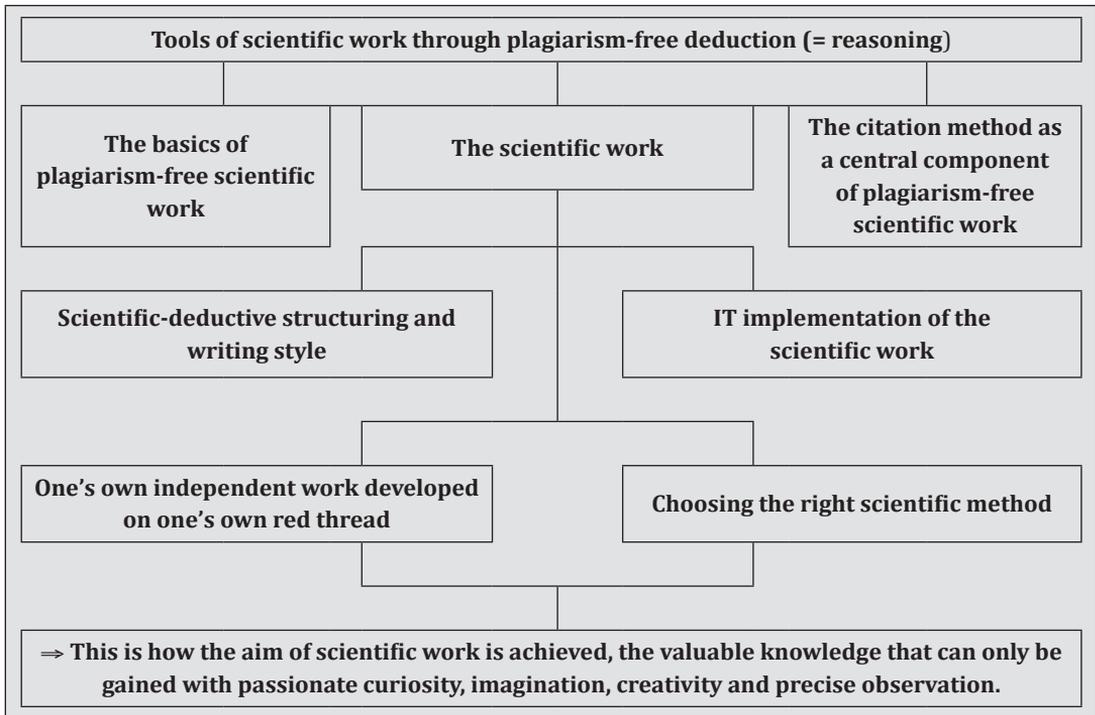
Instead of the usual labeled pages, the following **nine unique selling points** are developed here:

1. teaching of a deductive style of writing,
2. teaching of methodological work,
3. teaching of plagiarism-free writing,
4. teaching of IT implementation of the scientific work,
5. teaching of the (German) tax deductibility of training costs,
6. teaching of Albert Einstein as a ingenious example,
7. teaching the aim of scientific work,
8. teaching the creation of scientific attention and
9. exercise book.

This book explains simply and clearly the **tools of scientific work through plagiarism-free deduction** (= reasoning); see the following Fig. 8:

<sup>136</sup> Bundesministerium der Justiz und für Verbraucherschutz/ Bundesamt für Justiz, § 10d EStG, 2021.

<sup>137</sup> Cf. Einstein, Albert, Moleküldimensionen, 1905.



**Fig. 8:** Tools of scientific work through plagiarism-free deduction (= reasoning)

Source: own representation

The reader thus receives the tools for scientific work through plagiarism-free deduction (= reasoning). He learns to develop his own independent work using his own red thread. Assistance is given to select the right scientific method.

This is how the **aim of scientific work** is achieved, the **valuable knowledge** that can only be gained with passionate curiosity, imagination, creativity and precise observation.

## 3.2 Scientific-deductive structure and writing style

### 3.2.1 Overview

On the basis of the foundations of plagiarism-free scientific work, the scientific work must now be characterized and systematized.

Anyone who early on acquires a **scientific-deductive structuring and writing style**, writes **independently along the red thread that they have** developed and does not allow themselves to be guided by foreign texts. This eliminates the danger of copying and realizing plagiarism.

Therefore, the **scientific-deductive structuring and writing style** is explained as follows:

The scientific work is strictly logical. Each statement is **deducted** (= reasoned) from the previous one. The structure is **deducted** from the **topic** of the work.

The structure basically consists of five sections, an introduction, a basic part, two main parts and a summary. **The structure is not fixed** over time but is dynamically adjusted as knowledge advances.

If, for example, it turns out that a second basic part is necessary, a common heading can be found for both basic parts and these move to the next lower level.

## 3.2.2 Structure

### 3.2.2.1 Overview

The explanations in the text part are preceded by a structure in the table of contents. In this:

- the **section headings** should be worded **meaningfully**,
- sub-headings are only made according to **one classification criterion**,
- a sub-division must lead to at least **two and at most nine sub-headings**,
- should be structured **purely numerically (1.; 1.1; 1.1.1)**.

If there is a 10th sub-heading, a common heading can be found for several of these sub-headings and they move to the next lower level.

The positions of the structure are to be provided with the corresponding page references, they must match the headings of the sections in the text and their content must be briefly but precisely identified. If possible, no connecting sentences should be inserted in the text between a main heading and the subordinate sub-heading of the structure (**no intermediate text**). Intermediate texts should be preceded by a heading, an overview or general information.

### 3.2.2.2 Contents

The structure is part of the work and should show how the topic was understood and worked on. It must therefore reflect the logical structure (“**red thread**”) and must provide initial information about the content of the work. The structure is therefore the result of an intensive examination of one’s own problem statement. In this respect, it should also stand out from the structure of the evaluated literature in order to be able to sufficiently consider individual focal points and special features of your own topic formulation – also necessary for **plagiarism-free** writing.

### 3.2.2.3 Shape

A logical and **self-contained line of thought** is also reflected in a **formally and logically flawless structure** with corresponding structure points. Positions that are on the same level in the structure must have the same rank in terms of content and must start from a common, overriding problem (i.e. points 2.1.1 and 2.1.2, for example, all clarify the overriding problem area 2.1). Furthermore, points at the same level of detail should, as far as possible, be of equal material weight both among themselves (e.g. 2.1.1 and 2.1.3) and in comparison with points of the same order (e.g. 4.3.1 and 4.3.6).

When subdividing, one has to make sure that, for example, a sub-item 1.1 is followed by a sub-item 1.2, etc. This means that a **structure point of an outline level must never stand alone**. If possible, it should be **avoided that the individual sub-points represent a verbatim repetition of the superordinate points or even the topic of the work** (e.g. “3. Concept and essence ...”, “3.1 Concept”, “3.2 Essence ...”).

The **classification** of the structure points must be done **numerically**:

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

A **point only follows those structure points that are ordinal numbers** (e.g. 1. = first, 2. = second, etc.). No point is added to any other outline points (e.g. 1.1, 1.2, etc.).

If necessary, it is advisable to clearly separate larger groups of topics or ideas from each other, e.g. by dividing them into parts, chapters or sections.

**A clear and generous arrangement of the structure points (e.g. by indenting) facilitates insight.** If the subdivisions are too deep, there is a risk that the problem will be fragmented and that the topic will

be dealt with in a self-contained manner. This should therefore be avoided as far as possible by a renewed critical revision of the structure.

It is therefore **not effective if a single section is less than ½ a page**. If the scope of a bachelor's or master's thesis is limited to 50 pages, it follows that only a structure **up to the 3rd structure level makes sense** (e.g. 1.1.1, 1.1.2, etc.).

### 3.2.3 Introduction

The introduction begins with a **problem statement**. In it, the **central question** contained in the **topic** must be worked out. The sub-questions or individual points to be processed to answer them are to be named and **deducted from the central question** (= reasoned). If necessary, this also includes **topic delimitations** and processing instructions.

Factual comments on the **subject, aim and methodical structure** of the work as well as any necessary definitions of terms should emerge from the problem statement.

- **Wording example 01 Problem statement**

*Identifying the problem is far more important than identifying the solution,  
because accurately identifying the problem leads to the solution.*

Dr Albert Einstein

The **central question** is deducted from the problem statement.

- **Wording example 02 central question**

Therefore, the central question arises as to how through plagiarism-free deduction (= reasoning) it can be written scientifically.

Finally, the course of the investigation follows, in which the sub-questions are deducted (= reasoned) from the central question. The sub-questions correspond to the individual sections of the structure.

- **Wording example 03 Cause of the investigation**

This results in the following course of the investigation: After the introduction, the basics of plagiarism free scientific work are to be examined first. Based on this, the scientific work is to be characterized and systematized. Building on this, the citation method is to be presented as a central component of plagiarism in free academic work. Finally, the results of this work are summarized in theses.

### 3.2.4 Basic part, main parts and transition

The basic part deals with questions that are more fundamental to the processing of the topic, while the main parts are more concerned with deriving an answer to the **central question**.

A section heading may not be identical to the **topic** of the work.

Since a sub-question is processed in each section, the answer to the respective sub-question is deducted at the end of the section.

Then the sub-question of the **next section is deducted from the answer to the respective sub-question**, thus creating a **transition to the next section**.

- **Wording example 04 Danger text-scientifically**

The danger of realizing plagiarism is greatest when someone produces a purely text-scientific work and is not guided by their own red thread, but by someone else's texts. However, if scientific methods are used, the risk of plagiarism is minimal, because the red thread is determined by these methods.

**Example:**

Cf. BFH of January 26, 1970 IV R 144/66, BStBl 1970 II, p. 264 subsq. (267).

## 4.4 Bibliography

### 4.4.1 Contents

All sources referred to in footnotes in the text are listed in the bibliography. **Laws are not to be listed in the bibliography.** In order to identify the status and source of the laws used, a **reference can be made in the list of abbreviations**, e.g. KStG = Corporation Tax Act in the version published on October 15, 2002, Federal Law Gazette I, p. 4144, last amended by the Tax Reduction Act of October 24, 2000 (Federal Law Gazette I, p. 1433). The designations for the index are “bibliography” or “index of sources”.

When using the short citation method suggested here, the footnotes in the list of references include the surname and first name of the author; the **keyword selected for the short citation method or the journal** (abbreviated) and the **year**. These are placed in brackets and placed in front of the full listing of all bibliographic data.

In detail, the following information is required:

- **With books:**

Surname and first name of the author (alternatively the editor, academic degrees and titles are not mentioned here),

(Keyword, year):

Title of the work,

Volume (if necessary),

Surname<sup>138</sup> and first name of the editor, issuer or translator (if necessary), edition,

place of publication,

Publishing year.

- **For journals and regularly published collections:**

surname and first name of the author,

(abbreviation of the name of the journal year),

Title of the article,

in: title of journal (,)

Place of publication (for foreign journals only),

Publishing year,

first and last page number of the article.

- **For compilations**

Surname and first name of the author or editor,

(keyword, year):

Title of the article,

in: title of the compilation,

Volume,

Surname, first name of the editor,

Edition,

Place of publication,

Publishing year,

first and last page or column number of the article.

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<sup>138</sup> Up to three authors, editors, issuers or places of publication are to be recorded. If there are more than three authors, “et al.” is to be added to the first three. In case of dissertations, the university location must always be given.

- **For series of publications**

Surname and first name of the article or the editor,

(keyword, year):

title of the work,

in: designation of the publication series,

Volume,

Surname and first name of the editor or issuer,

Edition,

Place of publication,

Publishing year.

- **For comments**

Last name, first name (abbreviated) of the Editor(s) (ed.) or the commentary,

(short title, year):

comment title,

Volume,

edited by: name of editor,

Edition,

place of publication,

Year of publication or status of the edition used (for loose-leaf collections).

In addition to recording the comments under the name of the editor, they must also be listed under the names of all quoted editors:

Surname, first name (abbreviated) of the issuer,

in: Name of editor (if available) or commentary,

then continue as above, without short title,

§ indication including marginal numbers.

- **In judgments**

Name of court,

Date,

Reference number,

Reference,

first and last page number of the judgment.

Additional information may be useful; this has to be decided on a case-by-case basis.

#### 4.4.2 Arrangement

In the bibliography, all sources used must be listed in **alphabetical order by author** or classified under “no author” (NN.). **Several publications by an author are listed according to their year of publication.** A general order according to the year of publication can provide insights worth knowing but is usually not practical.

When structuring the bibliography, a differentiated approach is required. Books, essays and commentaries can be summarized under the generic term “monographs”. For legal material, decisions of the highest courts, guidelines, administrative instructions, Internet sources, etc., a separate display is always advisable.

A division of the bibliography according to comments, books, dissertations, essays, etc. does not have to be made. However, the decisions of the individual courts must be shown separately.

### 4.4.3 Use of tables, diagrams, etc.

The tables, diagrams, etc. must bear the clearest possible description of the content. Particular attention should be paid to a precise spatial, temporal and factual delimitation of what is depicted.

The symbols used in a representation are – without regard to their detailed explanation in the text – to be explained in direct connection with the representation. This applies equally to the annotations added or adopted by the author. All representations, be they tables, diagrams or other illustrations, are to be provided without exception with a reference in the form of a caption. The word “source” must always be given.

Each table or graph should be numbered. The numbered tables are recorded after the table of contents in a list of tables and/or a list of figures.

#### Example:

| Allocation of important types of taxes to the regional authorities in 2002                    |                                 |                |             |
|---|---------------------------------|----------------|-------------|
| Tax type  | Percentage of local authorities |                |             |
|   | Federation                      | Federal states | Communities |
| Wage tax and assessed income tax  | 42.5                            | 42.5           | 15.0        |
| Interest deduction  | 50.0                            | 50.0           | –           |
| Value added tax   | 51.4                            | 46.5           | 2.1         |
| Trade tax   | 50.0                            | 50.0           | –           |
| (Trade tax allocation)  |                                 |                |             |
| <b>Source:</b> Federal Ministry of Finance (ed.), Data collection on tax policy, 2003 edition |                                 |                |             |

Extensive material, such as larger tabular and graphic representations, photocopies, longer legal texts, etc., is to be accommodated in the appendix or in an attachment. Tables and diagrams that are folded or arranged in landscape format should be avoided as far as possible; otherwise, they should be arranged so that the work is turned clockwise for reading.

In tables, it is recommended to use the following characters when necessary:

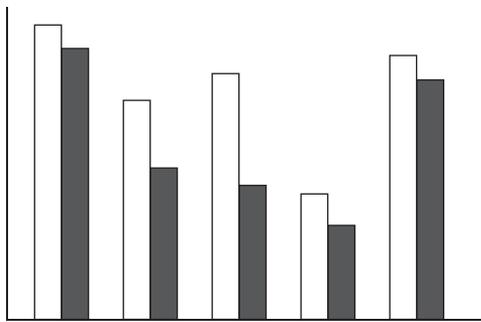
- a zero (0; 0.0, etc.) for a size less than half the count unit used;
- a dash (–) if nothing occurs (no case, no amount, etc.) or if entry is not possible for logical reasons;
- a point (.) if the number is not known or has not been collected;
- a superscript lowercase p (p) if the number was guessed.

In the case of **plagiarism-free citation**, it should be noted in particular that **direct (literal) quotations** are started and ended with **quotation marks** and the footnote begins – **without the prefix “Cf.”** – directly with the surname of the author quoted, while **indirect (corresponding) quotations** are started and ended **without quotation marks** and the **footnote begins with “Cf.”**. In the case of **tables and figures** in the text, the **reference to the source** begins with “Source ...”.

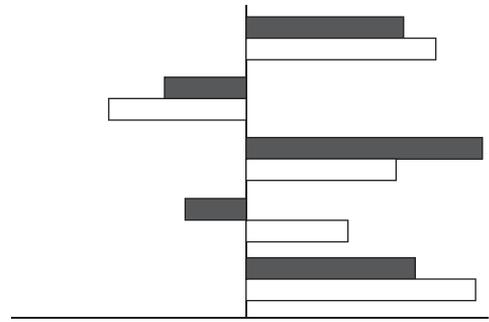
### 4.4.4 Examples for diagrams

In diagrams and graphics, statistical data or certain aspects of the same are graphically presented in a clear manner. However, this usually requires a summary of the data, so that information from the data is lost.

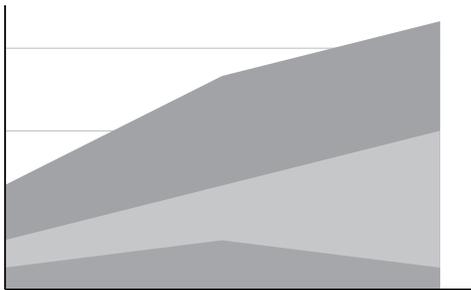
The following Fig. 12 gives an overview of conceivable diagram forms to clarify statistical data:



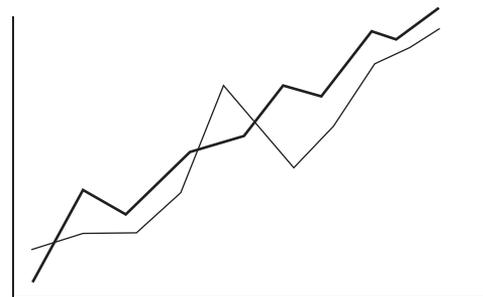
Bar or column chart



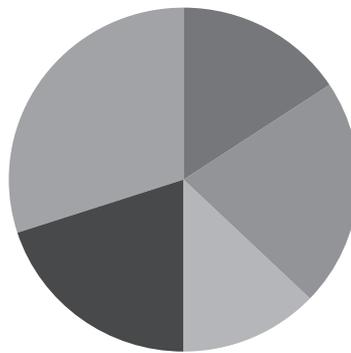
Bar chart



Area chart



Line chart



Pie chart

**Fig. 12:** Diagram shapes to clarify statistical data

**Source:** Manuel René Theisen, *Wissenschaftliches Arbeiten*, 17<sup>th</sup> ed., München 2017, p. 191

The bar or column chart, the bar chart, the area chart, the line chart and the pie chart should be mentioned in particular.

## 5. Summary

The results of this work can be summarized in the following theses:

- After many decades of scientific writing and years of lectures on scientific writing, the author of this work (textbook and exercise book) sees his task in presenting a **guide to plagiarism-free scientific work by deduction** (= reasoning), which is written in the style of a scientific work for illustration