TALLINN UNIVERSITY
School of Digital Technologies

Tampere University

UNIVERSIDADE LUSÓFONA
CENTRO UNIVERSITÁRIO PORTO

Here your name

THE NAME OF THE MASTER'S THESIS

Possible subtitle of the thesis

Name of the School, or Faculty or department

Thesis type

Month and year

ABSTRACT

[First name Family name]: [The name of your thesis]
Master's Thesis
Tallinn University, Tampere University and Lusófona Univesity
Master's Programme in Artificial Intelligence for Sustainable Societies
[Month] [Year]

The abstract page is located after the title page. The abstract must be understandable without having to study the entire thesis. It should be only one page. The purpose of an abstract is to give a compact description of the content of the thesis.

When writing an abstract, it can be assumed that the reader only has general knowledge of the thesis topic. The abstract should be understandable without the need to read the complete thesis. The abstract is written as whole sentences, not as a list of issues. There must not be any references or quotations in the abstract. All the data and claims presented in the abstract should also be found within the thesis.

The abstract should be as tense and informative as possible, containing the following data: field of study, motivation for the research, previous results, your topic, the main results and the conclusions.

Leave this here:
The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

Keywords: After Abstract-text

USE OF AI IN THESIS

I have utilised AI tools in my thesis:

☐ No
☐ Yes

The AI tools utilised in my thesis, and their purposes are described below:

Names and versions of AI tools: [List all the AI applications and their versions used during your thesis process]

Purpose of using AI tools: [Provide a detailed explanation of the purpose and application of AI tools during your thesis process]

Sections where AI tools were used: [List all the steps and sections of your thesis where AI has been applied during your thesis process]

I acknowledge that I am fully responsible for the entire content of my thesis, including the parts generated by AI, and accept accountability for any violations of ethical standards in publications.

Table of Content

The guidelines are shortened and modified from: University of Helsinki Faculty of Political Science, Social Sciences, Writing Instructions, renewed institution by Sakki, I., Pirttilä-Backman, A.-M. & Hakoköngäs, E.

1. Special Features of Scientific Writing

Scientific writing has some unique features. An excellent scientific text is a beautiful and fluent language. What makes a scientific text unique is that it is clear and precise, is based on references identified for presenting previous research, and often follows a pre-agreed structure. References are needed because scientific works use previous research results and build on the foundation they form. The reader must be able to check whether, in their opinion, the author interpreted the source material correctly. It is also appropriate to credit past achievements to whom it belongs. Reference lists of works are also an information bank for others interested in the subject.

A transparent and predictable structure helps the busy reader quickly find precisely what they are looking for from the text. For this reason, among others, the images and tables with texts must be consistent. Overall, the scientific text is characterised by substance, clarity and respect for the research object and previous research.

The thesis is written in English. It is advised to familiarise yourself with the APA guide, which contains instructions on how to avoid gendered language. Be aware that digital material types change rapidly. If you cannot find information on how to refer to a certain kind of material in this guide, check the latest instructions on the APA website (https://www.apastyle.org/). In the following, the structure of the quantitative and qualitative thesis will be explained.

2. Structure

The essay usually includes the following parts:

2.1. Cover or title page

The title of the work, the name of the author, the discipline and the university, information about which work is in question, the name and date of presentation of the opponent as well as other information that may be agreed on programme-specific guidelines

The title of the work must describe the content of the work as accurately as possible. It should also indicate that there is something special about this research. The name can be in the form of a question or a subtitle. The title should be evocative reader's interest. It is good to remember that the abstract of master's theses (see below) are placed on the university library's internet pages in a database accessible to all. Introductory words such as exercise, research or thesis are not needed because the reader of the work knows what it is about from the context.

2.2 Abstract

The abstract contains no more than 350 words. It should briefly state the theoretical and other background of the work, the research questions, methods, results and significant issues considered. Finally, the keywords that are used to index the work are listed. Often, the abstract is written last and the keywords after that, but since the keywords are transferred to different databases, their selection and formatting should not be made hastily.

2.3 Table of contents

The table of contents is presented on its page. To avoid unnecessary typographical marks in the treatise, leave out dotted lines and page abbreviations. The headings of the table of contents must correspond precisely to the headings of the text. Always mark the starting page of the sources and appendices in the table of contents, but no number is needed in front of them.

Arabic numerals are used in the breakdown. It is recommended to limit the scaling to three or four subheadings. Remember that when you divide a chapter into subchapters, the number of subchapters and headings must be at least two (e.g. 2.1.1 and 2.1.2). The heading levels maximum is 3 (1., 1.1,

1.1.1). Next, the structure of the empirical work, which in its simplicity follows the division, is discussed in detail.

2.3.1 Introduction

It contains an introduction to the topic, research questions, a brief theoretical framework, and results and questions. (1-3 pages).

2.3.2 Literature review

Includes relevant theoretical starting points and previous research results.

2.3.3 Methods

Research material and its collection methods and analysis method(s).

2.3.4 Results

Own (usually empirical) results.

2.3.5 Discussion

Reflection on the relationship between the results and previous research, reflection on the limitations of the work, ethical issues, and possible further research topics.

2.3.6 References

2.3.7 Appendices

Works that do not deal with empirical material usually do not have separate chapters dealing with methods and results. The chapters of such a work are determined according to the content themes of the work.

2.4 Introduction

Introduction is a short chapter at the beginning of the work (e.g., 1–3 pages). In a master's thesis, the introduction typically refers to the first few introductory pages, and theoretical approaches and other relevant previous research are titled with main headings according to their contents.
The task of the introduction is to briefly introduce the reader to the topic and motivate him to continue reading. From the introduction, it is easy to find out what the author's basic idea is and what he is aiming for. The introduction can be presented clearly but still in a general way with central solutions of the research. The objectives of the study can also be characterised in the introduction. More precise research questions and hypotheses will only be presented later after the reader is provided with the theoretical starting points, key concepts, and other relevant previous research.

2.5 Theoretical starting points and other relevant previous research (literary review)

The task is to present what is relevant to your research question and previous research. It deals with the topic in a logical order and thus proceeds so that the reader also ends up understanding why it is interesting and important to study exactly the questions that are investigated at work. Titles should be meaningful. The reader knows that this part of the work deals with previous research, so there is no need to repeat this information.
When presenting previous research, note the source or sources (see detailed instructions below) on

which that information is based. The further you progress in your studies, the more the source material must be original research in the field. For example, the master's thesis should no longer refer to basic textbooks.
Primary source materials are texts that have undergone critical evaluation by the scientific community before being published. Personal communications are the last source material used. The Internet, in particular, poses a challenge because it can sometimes be difficult for the reader to distinguish between material that has gone through the evaluation process and the personal opinion of a single person.
The writer should always remember that they are writing their text, which is constructed based on previously published studies. Therefore, the logic of the work must be clearly visible, as well as the sources used to build one's argument. It must be remembered that research in the field must be considered evenly, not in a tendentious way, only choosing results in a certain direction. In science, the writing resolves and brings out contradictions; they are not hidden. When referring to sources, it is also good to be precise concerning your expression.

For example:
Bauters (2007) has shown in her research – –.
In her theoretical background based on pragmatism, Bauters (2007) concluded that...
Bardone and Bauters (2017, p. 5) defined that “professional judgment is related to perceiving [...]".

All of the above examples are significantly better in terms of accuracy than "educational design-based research can be considered an attempt to face the never-ending controversy concerning how to frame the relations between theory and practice" (Bardone and Bauters, 2017, p. 1).
So-called second-hand sources should be avoided. After presenting previous research information and theoretical starting points, it is the turn of the previous refinement, formulation and delineation of relevant research questions. The main question can usually be divided into sub-questions. Research questions should be formulated clearly. In addition, the connection of the questions to the presented theory or previous research should be explicitly visible. If the research questions are formulated in the form of hypotheses, they must be logically derived from theory or prior research. In the same work, you can present part of the questions as a hypothesis and part as open questions.

An example of presenting the main question and hypotheses:
Can the pragmatism approach provide light for the interpretation process of visual signs?
Hypothesis 1. Can processual perspective provide means to understand the interpretation process?
Hypothesis 2. What current research approaches are needed for visual sign interpretation?

The research questions can be the last subsection of the previous research part of the work, or they can be their main number entirely. Sometimes, in qualitative work, it is meaningful to present research questions in two stages. So, if posing more specific research questions requires extensive preliminary analysis, preliminary questions are asked from previous research at the end of the introductory part, and the specified questions are highlighted in the results part, for example, under its sub-heading after preliminary analysis.
When building the theoretical background, the researcher tries to show how their research connects to relevant previous theories, research trends, and research results.
The formulation of the research questions and possible hypotheses are based on the information

from the research literature that has been carefully explained.
When writing the theoretical background of the research, you have to think about whether they are central from the point of view of the research theories and previous research presented. Furthermore, it is essential to show their relationship to the research questions. The concept of the research should also be described accurately enough.

2.6 Methods

The methods section describes in detail how the research was done and what kind of materials were used in the work (e.g. interviews, newspapers, internet materials). The backgrounds of the materials and/or participants are characterised as precisely as possible (however, taking into account the anonymity of the participants). The steps related to data collection are described as accurately as possible. When was the data collection done, and how long did the phase last? Did the data collection strategy change as the research progressed? It also describes how the data collection took place in practice, for example, where the interviews were conducted, who was present and what the atmosphere of the interviews was like. The research methods are explained in detail and precisely, as well as all the points necessary to understand the course of the research. It is essential to justify why the chosen methods are appropriate for the research.
The methods are described with such precision that any researcher in the field can repeat the research.
Key issues in the methodology section are the means and stages of information acquisition and the justifications for choices.
When explaining the research method, consider the following points, among others:

- *Research layout.* When explaining the method, the researcher describes the research setup in question (e.g., cross-section, follow-up data, experimental setup, observation).
- *Research subjects* (interviewees, survey respondents, subjects of observation, etc.). Of those to be investigated, how were they selected for the study, how many were there, and what were their age, gender, and possibly educational or occupational distribution? How the research subjects were reached (e.g. face-to-face, by phone, mail, e-mail), whether they were rewarded for their participation and how the ethical issues related to recruitment were resolved (e.g. how consent was requested, what was promised to the participants regarding the processing and storage of the data). The research questions regulate how detailed information is needed and from whom it is needed, but in all cases, some basic description is required to know what kind of sample or sample the results are based on. The interviews are also told whether they were recorded or filmed and how permissions were requested for these activities. In addition, the accuracy of the recordings and the image will be reported.
- For qualitative interviews, their average duration and range are reported (e.g., the duration of the interviews varied between 75 and 145 minutes, the average duration of the interview was 90 minutes). It is also essential to describe the main features of the interview body, e.g. the contents of the main questions and what types of questions were used (open vs. closed). At this stage, the procedures related to the recording/recording of the material are also described, how the recordings were transcribed, how the field notes were used, and so on. The body of the interview can be presented as an appendix to the study if it helps the reader to understand the results of the study.
- *Magazines, e-mail lists, etc. used as research material.* How was the material selected? How has the final research material been selected (e.g. certain parts of magazines)? With which search terms is the material located? When did the materials used as research material, for example, magazines, appear, how long were they, and how was the material prepared for processing?

- *How was the questionnaire or interview form formed?* Let's say query or the content of the interview form. The form can be submitted as an attachment to the study. All operationalisations of variables must appear in the method section. If standard measures have been used in the work (e.g. Rosenberg's self-esteem measure), the reliability is also reported to two decimal places. Reliability indices are also reported for self-made meters.
- *The observation protocol used in the observation* and the basis for its formation. How was the observation carried out? How were the findings recorded/recorded? If the observation focused on examining, for example, certain parts of the interaction, how were these selected from the material?
- *Research data analysis strategy.* Usual methods in quantitative work are reported briefly, while more specialised and complex analysis strategies are introduced concerning the original narratives. Very complex and stepwise analysis strategies can be presented in methods as their subsection. In qualitative work, the course of the analysis can be presented both in the method and the results. This means that the analysis strategy can be described at a general level in the method part, but in the results part, the strategy is presented in detail with data examples. It is essential that sufficient detailed information is presented about the analysis strategy and method so that the reader can repeat the research setup if they wish. Qualitative analysis requires examples usage, specifying the concepts used (what the author means by category, theme, etc. and what kind of text the category, theme, etc. may be related to). It is essential to characterise the borderline cases of the classifications and how the different borderline cases have been solved.
- In quantitative and qualitative research, there is no single guideline for the appropriate amount of material or the minimum number of participants (e.g., individual interviews, form answers) for a particular research question. Therefore, it is essential that the researcher gives reasons to the reader how a certain amount of material or number of participants was reached - and primarily how the material in question supports the study's goal.

2.7 Analysis

In qualitative work, the analysis process of the material is described as accurately and transparently as possible. We describe, e.g., the principles of structuring the material (e.g. coding and thematisation), the principles of forming codes (e.g. based on previous research, based on theory, based on the material) and the unit of analysis (e.g. meaning unit, paragraph, sentence) and it is explained how it was arrived at. The data analysis process is opened to the reader with examples. If a program (e.g., Atlas.ti) has been used to help with the analysis of the material, that will also be reported. In qualitative research, attention is paid to methodological integrity and consistency in the description of the analysis process. Methodological integrity includes, e.g. considering the extent to which the material is sufficient to meet the goals of the research, how the position of the researcher has been taken into account in the process of collecting and analysing the material, and how the results are based on evidence (e.g. using material examples). Integrity can be supported by providing enough material examples that are well contextualised (e.g., before the material example, it is explained from which context it was taken/which interview question it answers, etc.) and by openly highlighting those findings that contradict the main findings.

Methodological consistency can be supported by giving examples of the analysis process/use of tools, using a parallel coder, or openly describing possible problems and limitations (e.g. someone else did the interviews or the coding matrix, the material has been translated). There are also different ways in which support can be sought for the results of qualitative research. These include the utilisation of different types of data (triangulation) in the study of the same phenomenon, analysis of the same data by several researchers, asking for feedback from the participants, working

methods that promote the researcher's reflexivity (e.g. maintaining a research diary/recording metadata) and in-depth description of the data and related examples.
Sometimes, the course of the research is so complicated that it should be reserved for its own subchapter or presented as a diagram.

2.8 Researcher's position

The description of the researcher's position includes, among other things, the consideration of how the researcher's previous understanding of the phenomenon under study affects in different ways (e.g. limiting, enabling) the various phases of the research (e.g. data collection and analysis). This opening of one's own position may include, for example, reflection on the researcher's cultural or demographic background, his/her previous experience related to the phenomenon under study, his/her education, or his/her values. The researcher's position can also be examined in the discussion and conclusion part of the work.

2.9 Score

Before completing the results section, it is worth checking that all research questions have been discussed. Every research question has to be examined, whether the answer was received or not. The key content of the results is presented as clearly as possible, and the main results of the study should be easy to find. The result reporting part is the background for the discussion and conclusion section presented next in the text.

2.10 Quantitative work

The results of the quantitative work are presented simply and clearly. The results should not contain interpretation, and at this stage, it is worth avoiding sayings such as "interesting", "important", "very", and "what is the reason?". The quantitative work presents the following issues:

- Descriptive key figures (frequencies and percentages or averages and standard deviations) from the research data (e.g. in a table) and a correlation matrix of variables measured on a scale
- The main result of the study (preferably in a concise figure or table)
- "Testing" of the main result, i.e. elaboration
- Other essential results possibly related to the research question

Statistical significance is only one of the things that should be looked at. For example, when the sample size is large, even tiny differences/connections become statistically significant. Note that statistical significance does not say anything about the overall significance of the results. In addition to the statistical differences/connections, the effect size should also be examined.
The results section should clearly state which analyses test the established hypotheses and which are so-called exploratory analyses, i.e. examine things for which no hypotheses have been established (usually because there is not enough previous research to draw up justified hypotheses). Before presenting the results of the statistical tests, it is stated whether the material meets the conditions for usage of the tests.

2.11 Qualitative work

In qualitative work, the result review can be structured in a few different ways. Because qualitative results are more theory-bound than quantitative ones, it is not always possible to separate the result and the interpretation in the same way as in quantitative research. Consequently, the results section can also be more interpretive than in a quantitative report. In the results part of qualitative work, you can also refer to previous studies, which in practice can never be done in quantitative work. If

the results section refers to previous studies, the same principle should be followed throughout.
Before analysing the material and writing the results, the author should find out for theirselves whether they are interpreting the qualitative material from the so-called fact point of view *(what* the material tells about external reality) or from the sample point of view *(how* the material constructs reality). ***Mixing these two perspectives in the same work should be avoided.***

In qualitative research, the use of quotations is central because the interpretation of the material (e.g., interview, newspaper article) is largely based on them. Quotes can be used in at least three ways:

- justification of the interpretation with a quote
- use of an example describing the material
- enlivening the text with quotations.

The author should introduce what is said in the direct quote but should not tell (before the quote) nor repeat the content of the quote in the language of science after it has been presented. After the quote, the author can explain to the reader how it justifies the interpretation or describes the material.
The use of quotations should be moderate and considered because abundant use of quotations will make it hard for the reader to find the focus. At best, however, the presentation of research material gives the reader a picture of the richness of the material and the expressions used by the subjects.
The general rule for the number of citations is that there should be more of your text than citations. Typically, the same quote is not used twice in the same report.
Quotations are usually italicised (quotation marks are often used in addition to italics, but just italics are sufficient). Short quotes can be italicised within the text, while longer ones should be separated into their own indented paragraph, still italicised. Quotations of more than 40 words are indented from the left edge (1.3 cm) into their own paragraph.
In this case, no quotation marks are used. If something unnecessary in terms of the presentation of the matter is intentionally left out of the live presentation, use […] for the omitted point. The text samples should be translated into the language of the work.

The translator of the text samples must be indicated in the method section or, at the latest, in connection with the first text sample. Text samples in the original language must be attached to the work.
In the text samples, identifying information is presented in code form, i.e. the reader must know whose interviewee or which article the sample is about (e.g. Interviewee 1 or SP1). It must be explicitly stated whether text samples from all interviewees, etc., are presented because the reader is usually interested in whether there are quotes from the material evenly. If the author makes their clarifications to the text samples (e.g. pronoun references), they are marked in square brackets [ ].
For example:

> *"[The] two-year programme, where the company gets a consultant. And throughout this period, they can take part in different training courses. We have 45 mentors who are experts in their specific field […] to understand marketing and kind of the technical side behind that. […] like using Google Analytics and the coding part of it and how you can enhance your appearance online by actually implementing some behind-the-scenes programming. […] Photoshop and Illustrator, and those skills to edit photos are always something they're keen on learning more about." […] Their stock and management of their materials also is something that most of them are doing on paper, and you know, it's loose in their head; I guess they could use software for that, that would definitely make it more efficient for them". SP5(9)*

The same principles apply to using images for scientific text, tables, and figures: only use images necessary for understanding your research object or analysis. Equip the image with a number, a clear caption and sufficient source information. Inform the reader of the picture if you have edited it (e.g., by cropping). The caption is placed below the image. Refers to a picture in the text as a figure.

Example: The ad illustrates the advertising beer in 1960's.

Figure 1. The advertisement with the woman and the glass appeared in Aamulehti on September 12, 1970, and Uusi-Aika on October 27, 1970. It belonged to a series of advertisements utilising the award stamps (Satakunnan kansa 1.3.1962).

The figure caption is placed below the figure; in tables, the title is placed above the table.

2.12 Discussion

In the discussion part, the research results are clearly related to the background literature of the study and the research questions based on it, and the significance, reliability and usability of the results are evaluated. The purpose is to tie the details of the Results chapter to previous studies and more general considerations and to interpret the obtained results. If your and others' results conflict with each other, think about why this is. The discussion can start by briefly highlighting the main points of the results. The purpose of the summary of the results included in the discussion is mainly to describe the "forest" that can be seen from the "trees" of the results.

Among other things, it would be good to discuss both quantitative and qualitative work

- answer the questions in the introduction
- address the limitations and weaknesses of the research method
- consider how the research increased knowledge in the researched area
- think about the reliability and validity of the results
- consider the possibilities of utilising research results
- presents the further research challenges and practical action proposals produced by the

research

If the hypotheses were refuted or some unexpected results were obtained in the study, consider what could be causing these. Speculative interpretations can also be presented in the discussion, as long as the degree of speculativeness is expressed with the word choices. It can also bring out new perspectives and bases for interpreting the results. In the discussion, evaluating your choices' impact on the results of the thesis is also recommended. In quantitative work, you can use, for example, different checklists.
In addition, it is possible to refer to previously published studies in the discussion, including those not used in the thesis before.
The structure of the thesis can, therefore, be described in the form of the attached bow. From the broader treatment of the topic, we proceed to research questions, methods and results, after which the topic is discussed more broadly again in the discussion.

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2.13 References

The sources used are indicated in the text and reference list. The reference in the text must give so precise information about the source that it can be easily found in the reference list. The reader should find through the references the original sources and check the accuracy of the references, i.e. that the sources have been appropriately cited. For this reason, the references in the text and the reference list must match each other exactly.
Different citation methods are used in various disciplines. The most important rule is to follow the same reference method in research consistently. The APA publication guide (Publication Manual of the American Psychological Association) is used as the reference method.

2.14 Citation and reference list

We use APA 7 style for references in text citations and in reference list.

See: https://apastyle.apa.org/style-grammar-guidelines

In-text citations

Please see examples and principles from: https://apastyle.apa.org/style-grammar-guidelines/citations

Reference list

The list of sources presented at the end of the text provides the necessary information on the identification of each source and for searching. The author must choose the sources they use carefully and include only those they refers to in the text.
Please note there are various types of references, books, scientific articles, legal texts, and materials used as research materials, such as Internet sources, audio sources, etc. Check the guidelines from https://apastyle.apa.org/style-grammar-guidelines/references/examples

2.15 Footnotes and endnotes

Sometimes, it is justified to include information in the text that does not belong in the text but, which the author nevertheless wants to bring to the reader's attention. In this case, a footnote can be used. Footnotes are numbered, and the number is placed as a superscript at the end of the word or sentence to which it belongs. The number can be placed depending on whether the reference is to one or more sentences.

The reference number is entered immediately after the referenced text and attached to the word or end punctuation mark. The text of the footnote should be placed at the bottom of the text. Endnotes (i.e. the text is placed at the end of the entire text mass) should not be used because they are more challenging to read than footnotes.

2.16 Attachments

Extensive and separate parts related to the work that may make it difficult to read can be presented in appendices.

Appendices are placed last in the dissertation after the reference list. They must be numbered and titled. Appendices not referred to in the text are not included in the thesis. Materials that are very suitable for the appendix include, for example, the questionnaire used, the code list developed in the analysis of the qualitative material, and detailed information related to the interviewees, which is too detailed for the actual text. In some cases, even the results presented in the results section, more detailed result reviews (however, never, for example, raw results of statistical runs) can be placed in the appendices.

3. Layout

3.1 Font, line spacing and margins

Times New Roman should be used. A good point size is 12. The line spacing must be 1.5. Margins 2,54 cm top, button, left and right.

3.2 Title levels

You can change the header levels' font definitions and line spacing according to your preferences. There are levels, however, to be considered sufficiently but not too different from each other and from the body text. The title should also always be positioned closer to the text it belongs to (i.e. it should be on top of it more empty space than below it).

3.3 Page numbering

You can start counting pages either from the content page (Introduction). The page number is marked at the bottom right of the page. Remember to always number the reference list pages as a continuation of the text. Appendices should also be numbered if they are referred to in the text.

Example:
The questions of the structured interview are presented in the appendix (Appendix 1).

4. Instructions related to writing

4.1 Use of tenses

The past tense is particularly suitable for describing results and literature reviews. The past tense should be used when referring to previous research, one's own research on the process, and one's own and others' results.
The present tense is suitable for explanations of terms, definitions, presentation of theory and those derived from theory referring to claims, various tables and figures, discussing research results and presenting conclusions.

4.2 Form of the verb (person)

Many writing guides nowadays increasingly favour the use of the first person singular. However,

one must be careful when using the I form. It is worth remembering that it is a scientific text, not an opinion piece. The author must not unnecessarily put himself between the reader and the issue. The use of the passive does not make the research more scientific, but rather, the expression is often rigid and convoluted and thus imprecise. The me pronoun only refers to more than one factor and is, therefore, not often recommended for use in a master's thesis.

4.3 Language

A scientific text must be factual, but it doesn't have to be boring. Don't just write in obscure and foreign words to appear wiser: in most cases, an easy-to-read text tells the story with better understanding and internalisation.

Always write complete sentences; don't leave out the verb! Use variables when writing sentence structure: main clauses, subordinate clauses, clause equivalents. If you use only main clauses, the text will be rambling. On the other hand, sentences that are too long and consist of many subordinate clauses are complex to read. Be careful when using phrase equivalents because they easily make mistakes, and their excessive use makes the text awkward. Try to write simple sentences and avoid unnecessary rambling. Important things must stand out from less important things, and the most important things should be placed in short sentences so that they will definitely be noticed. The correct use of punctuation marks clarifies the text and makes it easier to read.

5. Proven ways to help the writing process

Each of us is a writer in our own way. The writing process has also been studied scientifically, and some advice suitable for most people can be given.

1. When you have initially familiarised yourself with your subject area, think about what is the central question or issue of your work and the main themes. Make a preliminary table of contents. List the issues covered in each chapter and the core message of each chapter. Check that the work forms a logical entity.
2. With the help of concept maps, you can clarify your thoughts. What are the main points of your work concepts? What is their relationship with each other?
3. Make intermediate goals for yourself. Break the work into smaller entities and schedule them to get it done.
4. As the work progresses, your original question may turn out to be uninteresting or difficult to examine for various reasons. You may have already written a text about it. However, if necessary, dare to give up original thoughts and preliminary text fragments. If you are repeatedly giving up on your original ideas, test your ideas with your instructor, for example - it could be that you are overly critical of your text.
5. Give the text to a few of your fellow students to read and ask them for critical comments on its comprehensibility. Getting to know someone else's text always takes time, so, for example, at the beginning of the courses, it is worth agreeing on mutual preliminary comments on other texts.
6. Talking about the topic out loud with friends can also make writing easier. One way is also to imagine that you are writing to your friends or relatives and thus try to express things in as concrete a language as possible without thinking about the requirements of "scientific".
7. If necessary, let the text rest for a day or two. Sometimes, taking a distance helps to see the bigger picture better. However, be careful not to accumulate too many rest days from work.
8. If you feel that "there's no way the text will come out, “ sit down at the computer and decide not to leave it for four hours. Few people can sit for four hours without doing anything.

9. Learn to use, for example, the Refworks reference management system at an early stage.
10. Learn from articles published in good journals. Ask the supervisor for tips on good past theses that you can use as a model.

Remember that even teachers and supervisors sometimes find writing difficult. If your work is not progressing and the advice given above is of no use, do not delay and contact the instructor.