Thesis

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Introduction to the Study Text

The Thesis study text is devoted to the issue of creating bachelor’s and master’s theses. The goal of the subject is to carry out a thesis so that it is ready to be defended in front of an expert committee. For this purpose, the text deals with the following topics: motivation to write a thesis; the stages of its creation; the structure of the document; the formal and linguistic requirements; and the mechanisms associated with the thesis defence. In some sections the content of the study text is universal, while in others it reflects an assumption that the reader has chosen a topic in the area of pedagogy or psychology or their related disciplines.

The study text is adapted to the Czech academic environment and its requirements for the final thesis form. The target group consists primarily of students at the University of Hradec Králové, and therefore selected information is specified or complemented in accordance with this institution’s internal regulations.

The authors are aware of the time-limited validity of some information due to ongoing updates of and changes to documents pertaining to the form of the thesis resulting from the changing requirements and needs of the system and of individuals. All information is valid at the time of the creation of this study text. However, it is advisable to verify selected information later, for instance such information included in the internal regulations of the institution to which a thesis is being submitted, but also included in documents with a wider range of recipients, e.g. standards related to the documentation.
1 Thesis Significance

Objectives

After studying this chapter:

• You will specify the position of the thesis among other steps towards completing one’s studies.
• You will clarify what a student proves by writing a thesis and what the thesis enriches for others and for him/her.
• You will name the basic documents in which the significance and form of a thesis are stipulated.

Terms to Remember (Key Words)

• Higher Education Act
• CSN
• ISO
• master’s thesis
• bachelor’s thesis
• information literacy
• internal regulations of an institution

1.1 Position of the Thesis Among Other Steps Towards Completing One’s Studies at University

The Higher Education Act (act no. 111/1198 Coll., on higher education institutions and on amendments and supplements to some other acts) stipulates the conditions under which one can complete a bachelor’s or a master’s study programme. In both cases, one must pass state examinations that have a variable number of parts and depend on the respective university, field of study, etc. In the case of a bachelor’s study programme, the state exam may include the writing of a thesis, while in a master’s study programme, a master’s thesis is an obligation prescribed by law.

Compared to a bachelor’s thesis, a master’s thesis is longer, but it also has more serious content, which corresponds to the significance of the study programme according to Article 46 of the Higher Education Act. The particular position of the thesis is then defined by the internal regulations of higher-
education institutions, in particular the Study and Examination Code and its implementation directives.

1.2 Thesis Result Expected by the Student and the System

In a bachelor’s thesis, the student shows that he/she has mastered the basics of theory, specialist terminology and basic scientific methods, and applies acquired specialist knowledge and skills by processing a topic both in content and formal terms. In a master’s thesis, similar objectives are fulfilled, but with an emphasis on deeper processing and in terms of application, originality and broader benefit, along with the processes of compiling and summarising.

A thesis is a publicly accessible text and in writing it, students should manifest particular specialist qualities, i.e. the knowledge and skills they have gathered and developed during their studies. An expected output is the ability to process a topic or selected problem in theory and practice, respectively. This is done in writing, but the entire process and results must be defended by the student in front of an examination committee.

The parameters that define a thesis and its assessment include:

- The contribution and originality of the topic and processing, i.e. the novelty and creativity of processing a selected problem. It is assessed whether the thesis is a mere repetition of other authors or whether it makes its own contribution to the discussed topic. The application of the thesis in practice is related to this as well.
- The style of writing, especially the use of specialist expressions, its preciseness and linguistic and formal accuracy.

A bachelor’s thesis is prevailingly a compilation, while a master’s thesis, apart from demonstrating one’s ability to include and process a larger amount of sources and literature, should also be of broader benefit – revealing and useful for the author and potential interested persons. By fulfilling this assignment, the student proves his/her competence to create a specialised text based on acquiring theoretical findings and choosing an appropriate methodology to apply them. It appears from the aforementioned that it is neither necessary nor realistic for a master’s thesis to be groundbreaking and useable by a wide range of experts and laymen, but a certain contribution to the issue in question is implied.
By writing a thesis, the student also shows his/her level of information literacy, as described by the IVIG Working Group of the Association of Libraries of Czech Universities. Among other things, information literacy standards include one’s orientation in the terminology of one’s field of study including the knowledge of selected terms in a foreign language, active monitoring of the information channels of one’s field of study and the use of information contained therein in accordance with the copyright act and ethics, and last but not least, one’s mastering of one’s native language including its written form.

Apart from the obvious external motivation, there also must be an internal conviction about the broader benefit of so vast and serious a text as the thesis. To fulfil this mission, the selection of the topic is important, as it is expected that an interest in the selected area is developed in the student. During the thorough processing of the topic, the student becomes a ‘specialist’ on the selected area of knowledge, which he/she gets to know in detail. At the same time, however, his/her personality characteristics that can be used in his/her future life are manifested and formed during this long-term activity. Similarly to one’s entire university studies, the writing of a thesis is a challenge; when successful, it will strengthen the student and provide him/her with valuable experience that can in some cases be even of more value than the product itself. Eco says: 'Thus, the topic of a thesis is not as important as the experience we can gain when working on it.'

An attentive reader can quite easily identify the level of development of the various components of the personality and the presence of one’s desirable properties – even though the student is often unaware of it. This includes in particular the properties of psychological processes and states, especially cognitive, but also character properties that are clearly reflected in the quality and depth of the topic’s processing and the approach to the thesis either as a necessity required by the system or as an opportunity for self-development, the formation of desirable habits, etc.

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1.3 Documents Pertaining to the Thesis Form

The documents that pertain to the form of the thesis are concrete and binding to a varying extent. Nationwide, these are primarily the following acts:

- Act no. 216/2006 Coll. amending act no. 121/2000 Coll., on copyright and rights related to copyright and on amendments to certain acts (the Copyright Act), as amended, and some other acts.

The particular form of the thesis is stipulated by the internal regulations of universities, faculties or departments, which are, to a large extent, derived from the Czech technical standards (CSN) or from internationally valid standards adopted by the International Organisation for Standardisation (ISO). These documents include in particular:

- CSN ISO 690 (010197) Informace a dokumentace – Pravidla pro bibliografické odkazy a citace informačních zdrojů (Information and Documentation – Guidelines for Bibliographic References and Citations to Information Resources). Issued: 1.3.2011. This standard includes instructions on referring to and quoting individual items in bibliographic citations with examples. In appendices, information on the methods of citations and examples of bibliographic citations from various sources are included.
- CSN ISO 7144 (010161) Dokumentace – Formální úprava disertací a podobných dokumentů (Documentation – Presentation of Theses and Similar Documents). Issued: 1.3.1997. This standard includes instructions on the document structure, on what its parts should contain, on the provision and description of charts and figures, and on the provision and structure of lists and appendices. This standard is accompanied by appendices with examples of references in the text and a list of citations.
- CSN ISO 2145 (010184) Dokumentace – Číslování oddílů a pododdílů psaných dokumentů (Documentation – Numbering of Divisions and
Subdivisions in Written Documents. Issued: 1.11.1997. This international standard includes an explanation of the significance of a clearly arranged text structure along with the rules and recommendations for the formatting of the numbering of divisions and subdivisions including references in the text and material in spoken form. This information is accompanied by examples.

- CSN ISO 214 (010148) Dokumentace – Abstrakty pro publikace a dokumentaci (Documentation – Abstracts for Publications and Documentation). Issued: 1.2.2001. This standard defines the terms ‘abstract’, ‘annotation’, and ‘summary’, points out the purpose of abstracts, among other things, in primary documents, and includes the structure of the abstract and its form. This standard also contains stylistic recommendations. Attached are examples of informative, informatively indicative and indicative abstracts, followed by abstracts of monographs and chapters, as well as examples of the order of elements and the varied positioning of bibliographic references in abstracts in secondary documents.

- CSN 016910 (016910) Úprava písemností zpracovaných textovými editory (Guidelines for Text Presentation). Issued: 1.4.2007. The subjects of this standard are punctuation marks and working with abbreviations, symbols, figures and numbers. It also includes information on highlighting in the text, its division and marking its parts. Furthermore, the format and type of paper, font, and footnotes are determined, as are the numbering and formatting of tables and figures, etc. This standard also deals with letters, including e-mail. Examples of letters and tables are included in its appendices.

One must add that these and other Czech and international standards are generally non-binding as opposed to the internal regulations of the respective institutions (including universities) which are usually based on these standards, but can differ from them in some points. In such cases, one must give preference to the requirements of the institution to which the thesis will be submitted.

Each university stipulates unique requirements for the final thesis form that are defined by the institution’s internal regulations, in particular by the university’s Study and Examination Code and by the department’s or the university’s additional documentation. Their implementation form is specified in the decisions or directives of the dean or the head of the higher-education institution. These documents include instructions on the assignment, writing
and submitting of a thesis as required by individual departments or institutions of higher education.³

It is vital for students to know in detail the rules for writing a thesis, which are subject to a university’s internal rules and selected legislation. They will avoid complications that could occur should the thesis not correspond with the instructions and requirements specified in the aforementioned documents. Non-adherence to the formal requirements may lead to the rejection or even non-defence of the thesis.

Review Questions and Tasks

1. Name three categories of documents that specify the form of a bachelor’s and a master’s thesis.
2. Explain what significance and benefit writing a bachelor’s or master’s thesis has for its author.
3. What is the relationship between national and international standards on documentation and higher-education institutions’ thesis regulations?
4. Carefully read the Study and Examination Code of the institution of higher education or the decision of the dean at the department where you will submit the thesis and focus on the information related to master’s and bachelor’s theses.
5. Carefully read the current versions of the Czech and international standards related to thesis content and form.

³ At the Faculty of Education of the University of Hradec Králové (PdF UHK), information about a thesis is, apart from the UHK’s Study and Examination Code, also currently included in the Rector’s Decree no. 1/2013 – Code for Handling School and Some Other Author Works at UHK, in the Dean’s Directive no. 2/2011 – Scope of Authority of the Study and Examination Code (SZŘ) of the University of Hradec Králové for PdF UHK, and in the Dean’s Decision no. 16/2013 – Rules for the Submission of a Thesis and Its Writing.
Bibliography


2 Thesis Stages

Objectives

After studying this chapter:

- You will have an overview of the individual stages of writing a thesis and their timeframe.
- You will be able to create a thesis project.
- You will know the types of information sources and where to find them.
- You will know the methods for carrying out research.
- You will know the procedure for assigning and writing a thesis.

Terms to Remember (Key Words)

- theoretical-empirical thesis
- schedule
- primary sources
- secondary sources
- information research
- catalogues
- database
- thesis supervisor
- opponent

As will soon be obvious, writing a bachelor’s or a master’s thesis is a long-term process which, along with the fulfilment of other study obligations, takes at least two – in the case of a master’s thesis three – terms filled with a relatively large number of assignments. The student should not overestimate his/her capabilities, especially because he/she does not have enough experience with writing texts of such magnitude. Therefore, it can happen that during the actual writing, the student finds that his/her time schedule is not adequate. Relying on advice from classmates who have already written their theses is somewhat risky, for each individual has a specific topic and his or her own disposition, with the requirements from the thesis supervisor also playing a role. In this regard, the thesis supervisor can provide valuable advice and recommendations.

The individual stages of writing a thesis will be described below. Their layout for the purposes of this text, however, does not mean that their order is unchangeable. Some stages can run in parallel, sometimes in a different order, and one can continually return to some tasks.
2.1 Selecting the Thesis Topic

Less than two years before completing his/her studies, the student needs to select the topic of his/her thesis. This topic corresponds to his/her field of study, from which the student selects a section of reality that has captured his/her attention during his/her studies. One can choose from thesis topics that are offered by individual departments in accordance with the focus of the departments and their academic staff. These topics are available in the school’s information system. Another option is that a student defines a new topic, which has the advantage of the student’s enthusiasm, but the disadvantage of a more complicated choice with regard to finding a competent thesis supervisor who would be familiar with the topic and would be willing to announce the topic and supervise it. In the case of the student’s own topic, it is necessary for the student to have some experience with the issue in the form of texts written earlier, a good knowledge of the environment (practical experience in a certain type of facility), etc.

Topics especially unsuitable for writing include those:

- that will most probably not bring anything new, whose results will be too simple and predictable, and whose research will be useless or pseudo-specialised;
- for which there is insufficient literature, which are insufficiently discussed, and are new and unknown;
- that are controversial, cause strong emotions or conflicts, and involve sensitive topics;
- that prevent creative writing and an original approach;
- that cause doubts on an ethical level, either with their focus or method of elaboration, course of research, etc.\(^4\)

In practice, it is not uncommon for a student to appear who is completely clueless with regard to the issue he/she should focus on, which is indicated, among other things, by the sometimes chronic repetition of ‘popular’ topics. It is then easy for the thesis to belong among the number of similar ones. The cause of unease when it comes to choosing a topic is low commitment or a low overview of the studied field, resulting from insufficient continual following of the issue, especially within the framework of self-study. Therefore, it is suitable, from the beginning of one’s university studies, to look for and consider potential

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thesis topics, to discuss them with competent persons, and to focus other study activities towards this goal (e.g. arranging for an internship at a selected facility, writing suitable term-papers, continual information research, etc.).

The thesis topic must be mature and thought through both in terms of its writing and its contribution, not only for the author. It is necessary for the topic to be somehow interesting and inspiring for the author, otherwise the lack of internal motivation will very quickly be obvious from the text.

The title of the thesis is a key moment that influences its assessment, particularly by its opponent (among other things, adherence to the topic is assessed), as well as its future destiny in terms of potential readers, because what a reader chooses from a number of other works often depends on the title. Therefore, the title must be interesting, succinct and, if possible, brief. The title reflects the actual content and all its words should be usable for search operations. It is not advisable to choose too broad a title, but it is necessary to put an extra effort into a precise formulation that will not be misleading, too general, lengthy, unclear, or allow multiple interpretations. This can be avoided, for instance, by spatial limitation, time limitation, or making the field of view more exact. The same applies to the topic itself.

2.1.1 Thesis Types
The Faculty of Education offers quite a wide range of focus for theses. A large number of them consist of theses oriented towards the subject in which the student receives a professional qualification, a teaching qualification. These theses focus on a selected issue of the relevant scientific field of study. With regard to taking pedagogical-psychological disciplines within the framework of the common core, theses are also focused on investigating phenomena in this area. Didactically specialised theses are also popular, which can result in an educational programme, worksheets, teaching aids, teaching texts, etc.

According to the selected approach to the topic, there are several thesis types:

- A theoretical thesis is based on the gathering of available information sources and their clear arrangement and critical assessment, which can also be complemented with one’s own theoretical input.
- A theoretical-empirical thesis, apart from its theoretical rooting, presents one’s own research that includes goals, methodology, characteristics of the research cohort, data analysis and interpretation. The ratio of the sizes of the theoretical and empirical parts is not determined; in some
cases theory can prevail, and in others the empirical part can be longer. However, these disproportions should be substantiated.

- An artistic thesis is associated with a work of art or an interpretative performance. In some fields of study, artistic performance is mandatory. With regard to the time demands placed on the creation or rehearsal of the piece of art, the written part of the thesis is adequately shortened, yet it still must have the structure and content of a theoretical thesis or a theoretical-empirical thesis and be closely related to the piece of art or artistic performance, because even a pedagogical student of artistic subjects must show his/her ability to work with specialist literature and resources.

2.1.2 Choice of Research Approach

The choice of one’s research approach depends significantly on the chosen topic. In general, one can distinguish between a qualitative and a quantitative strategy, and recently, a combination of these two strategies, i.e. a combined approach, which originated in order to provide a more complex view of researched phenomena, has been growing in popularity.

The differences between the quantitative and qualitative approach were succinctly defined by Gavora:5

- Number versus word
- Non-biased versus empathetic
- Explanation of phenomenon causes versus understanding of phenomenon significance
- Selection of persons versus selection of cases
- Verification of an existing theory versus creation of a new theory
- Traditional versus untraditional research problems

Qualitative approach

Even though this methodology used to be neglected in the humanities, today it has become of equal importance when expanding on scientific knowledge. This approach includes the choosing of a topic, research questions, data collection and its assessment, and the creation of conclusions. The main methods are observation, interview, and analysis of texts and records. The specifics of this methodology are its longer time definition, research in a natural and common

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environment, frequent utilisation of non-standardised methods, and a relatively complex view of the object of investigation. The objective is to obtain insight, understanding and orientation in the issue from various points of view, and to discover context, mutual relations and a holistic understanding of the phenomenon.

Among the advantages of the qualitative approach, Hendl includes a detailed description of the investigated phenomenon and utilisation of a natural and local environment for data collection and interpretation. However, its disadvantages are limited data validity with regard to the entire population, time demandingness, and the influence of the personality of the researcher.

**Quantitative approach**

As its name suggests, this methodology is based on numerical data. In the social sciences, this is a widely used and developed method to obtain findings by primarily using tests and questionnaires that allow measuring selected phenomena. The data obtained is processed by statistical methods through which one investigates the relations between variables. The basic objective is testing of previously established hypotheses about phenomena which can lack being fitted within a context.

The advantages of this strategy are the possibility of generalisation, manipulation of the conditions (variables), speed, and the relative independence of the researcher. According to Hendl, the disadvantages include low sensitivity towards the environment’s specifics and the straightforwardness of assessment, which can neglect the context.

**2.1.3 Function and Choice of Thesis Supervisor and Advisors**

The choice of one’s thesis supervisor depends on the topic chosen by the student. If a thesis is being written on a topic suggested by a professor, the thesis supervisor is the proposer; if the student chooses his/her own topic, he/she must find a supervisor who would be willing to accept the thesis and at the same time would be an expert in the area who, with his/her knowledge and

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8 HENDL, see Footnote 6.
9 HENDL, see Footnote 6.
experience, would enrich the student and would be able to lead, correct and encourage him/her, but also critically assess him/her in order to get the best possible result and a problem-free defence. Therefore, the student should consider the choice of his/her thesis supervisor on both professional and human terms. If there are substantiated reasons, there is no condition which states that the thesis supervisor and thesis opponent need to be from the same department where the thesis is to be submitted.

As will also be written later, the student in his/her thesis solemnly declares that he/she has written it on his/her own, and therefore the responsibility of the result is borne mainly by him/herself. The thesis supervisor’s function is of facilitation, correction or inspiration, and it is the content aspect of the thesis, and not the formal or linguistic aspects, that is at the centre of the supervisor’s attention. It is primarily in the student’s interest to consult with his/her supervisor not only the goals of the thesis, but particularly the structure, methodology and sources which he/she is using. The thesis supervisor checks the adherence to the thesis schedule and comments on the methodology, utilised literature, overall concept, and mistakes, if there are any. Therefore, regular consultations are necessary during which current problems and the independent progress made by the student are discussed.

A student’s duty is to visit his/her thesis supervisor at pre-arranged consultations at intervals agreed between the pedagogue and the student. The consultations are very valuable for the student, because, with a knowledgeable person, he/she can discover an unexpected context, avoid unnecessary work, and also better comply with the conventions of the particular institution, which the pedagogue knows incomparably better. It is advisable to contact the supervisor especially when the student needs approval of his/her overall concept or when he/she is in doubt, is having problems with literature, etc.

It is unsuitable for the student to attend consultations only out of duty or when unprepared, and to, due to his/her own complacency or insufficient effort, require advice and acts from his/her supervisor without first trying to resolve the situation on his/her own (recommendation of literature without previous information research, writing an outline without his/her previous proposal, thinking of the objectives of his/her research or hypotheses without his/her own contribution, etc.). If the student does not use the consultations at first (e.g. because he/she has procrastinated with regard to beginning the project) and counts on the pedagogue to oblige him/her with flexible replacement consultations before the deadline, he/she may find that this is not possible due to the supervisor’s current workload. This most probably will result in an insufficiently corrected thesis, which is highly threatened during the opinion
procedure and defence. After the thesis is submitted, the thesis supervisor has some room to influence its fate, be it in the opinion procedure or at the defence itself. Therefore, the student should never submit his/her thesis against the will of his/her supervisor.

In addition to the thesis supervisor, an advisor may play a role in writing a thesis. This function is not (even at UHK) exactly defined; however, it is often a prominent expert from practice who is not a member of the department or the faculty. The student can turn to him/her mainly with regard to content issues.

The thesis supervisor also does not have to be an employee of the university, but this carries some risks. Even though he/she is a professional in his/her field, it is not guaranteed that he/she will be sufficiently familiar with the formal requirements of the thesis or with the structure of a research report, which has a great deal in common with the structure of a theoretical-empirical thesis.

2.2 Creating a Thesis Outline

It is a good custom to create a thesis outline which many pedagogues require already at the moment when the student comes to them asking for possible supervision. This process is desirable especially if the student comes up with his/her own topic. When accepting a topic suggested by the pedagogue, it is advisable to begin to create the outline immediately after both participants compare their ideas with each other.

A thesis outline has several significant aspects: Firstly, when creating it, the student clarifies the structure, gets an idea of the sub-tasks involved, and touches on new problems that have not occurred to him/her during less thorough consideration and information-gathering. Secondly, the outline becomes a foundation and a guide for writing the actual text. This is a detailed plan or a guideline that leads to the fulfilment of the main objectives and whose need is as evident as the need for a blueprint for a construction company or a thematic plan for a teacher.

The length is usually between three and five pages. The thesis outline should have roughly the following structure:

1. Name of the author and title of the thesis
2. Introduction to the issue and the current state of the issue’s solution
3. Objectives of the thesis
4. Methodology
5. Structure of the thesis, titles of its chapters and their brief content
6. Expected results and outcomes
7. Bibliography
8. Schedule

Even though it may seem that creating an outline is unnecessary work, if it is thought through and thoroughly written, it will be completely utilised, especially if it includes formulations that can be used for the actual text.

With such a demanding task, as the writing of a bachelor’s or a master’s thesis is, a schedule is almost a necessity, for this is a long-term goal for which a number of sub-goals must be fulfilled. Therefore, it should be determined realistically, with a sufficient time reserve should an unexpected hindrance occur (which usually does, e.g. illness, broken computer, complication when sitting for a complicated exam, long-term unavailability of key literature) that interrupts the work plan. In particular, the schedule specifies the time scope and individual tasks, e.g. information research, data collection, conducting of interviews, and assessment of results, and solidifies the partial tasks ahead of the student along with their chronological order and duration. Apart from individual tasks, the outline should also include the method with which they will be achieved.

One’s adherence to the work plan should be checked every month. If one’s reality and schedule are in disagreement, one must analyse why the plan is not being fulfilled, how to remedy it, whether the work is in danger, etc. In such cases, it does not always have to be a mistake in the project implementation, but in its inadequate definition.

### 2.3 Thesis Registration

This particular procedure is determined by the heads of individual departments or the director of the institution of higher education. The official tasks associated with the registration usually consist of the student completing a departmental form and being connected to the thesis topic in the school’s information system. In addition to the basic identification and contact data about the student, the form also includes the title of the thesis, a short annotation including a brief summary of its content, a description of the methodology and basic information sources, and all this also in a foreign language. The signature of the thesis supervisor is necessary, thus confirming that he/she agrees with the student’s proposal to supervise his/her thesis.
The thesis registration later becomes a mandatory part of the thesis, and therefore it is binding to a large extent. Should there be minor changes, consent from the thesis supervisor must be obtained; should there be major interventions or even a change of the topic, the student must provide compelling reasons and resolve this situation through a written application addressed to the dean.

2.4 Information Gathering and Processing

Information is the alpha and omega of all human knowledge, and the foundation for a successful written work on the chosen topic is relevant information, which is often not easy to find. On some topics, information sources may not be findable due to their general low availability, even abroad. At other times, the topic is easily available and widely discussed in the literature, but even then the student has not won yet, as the individual titles may be of varying quality, professional level, etc. There are fields in which information very quickly loses its contemporary relevance and becomes obsolete, but there are also fields in which the information flow is somewhat rigid and awkward.

In general (apart from specific cases, e.g. analysis of public opinion or determinants of development), one must avoid such sources that are for the lay public, unprofessional, unverified and unserious (Internet encyclopaedias, hobby magazines, amateur publications, etc.). The choice of suitable sources is a component of information literacy and in case of doubt can be consulted with the thesis supervisor.

The information that the student decides to use in his/her thesis should be relatively new, trustworthy, professional, and always used in accordance with the Copyright Act and citation ethics (see chapters/sections below).

2.4.1 Channels of Scientific Communication

For his/her needs, the student should use various communication channels, in particular printed sources (books, journals, maps, etc.) and an ever-growing number of electronic sources (e-books, websites, online journals, etc.). If possible, he/she should attend professional lectures, seminars or workshops. However, information about the current situation in the field and topic in question can be also offered at professional conferences, which are a source of valuable information, contacts and inspiration. Some professional institutions
also organise web-based conferences that enable registered users to post, read and comment on individual entries.

As mentioned earlier, the student must choose his/her sources to be used in the thesis very carefully, especially with regard to their contemporary relevance and professionalism. He/she can choose from a wide range of sources of various types.

Information sources can be divided into two categories:

1. **Primary sources** include publications, books, articles in proceedings and journals, studies, standards, research reports, dissertations, master’s theses, habilitations, etc. These are original scientific works that are characterised by their being directly accessible from the author of the idea or research to the reader, without being mediated by a third person.

2. **Secondary sources** represent a certain processing of primary sources, i.e. they mediate and transform original information through various overviews, papers, annotations or abstracts. Most frequently these are textbooks, study texts, reference books, encyclopaedias or dictionaries.

Filka\(^{10}\) offers another categorisation according to the level of scientific quality:

1. **Popular-science literature** can provide a basic insight into the issue, but no part of the thesis can be built on it.

2. **University textbooks** are well-arranged sources of information about the issue, even though their thematic range is usually significantly wider. Therefore, one cannot assume a deeper analysis of the topics contained therein. University textbooks are a possibility, but one must count on the fact that their verification process is not as thorough.

**Monographs**

Monographs are thematically specialised publications that are written by one or more authors. They are more extensive and provide more complex information about the issue in question. However, their disadvantage can lie in their lower contemporary relevance due to a longer creative process and more complicated conditions for their publishing.\(^{11}\)

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**Journal articles**
Journals represent a platform that allows a more flexible reaction to the current happenings in the issue in question, because they are (usually) issued at regular intervals (monthly, bi-monthly, quarterly, etc.) and can flexibly reflect new findings. Journals have a concrete focus, and individual issues tend to be made up of articles devoted to one particular topic. Almost as frequent is the model in which the articles are related to each other only within the framework of the periodical’s overall focus. In addition, the advantage of journals is their higher variability of approaches resulting from the number of authors from various institutions, countries and continents. The professionalism of selected journals is guaranteed by a review procedure through which each potentially published article is subjected. The existence of electronic journals represents significant progress in the contemporary relevance of information.

**Proceedings**
Proceedings are a source that can have various motives of origin:
1. Proceedings as an output of a professional conference – the contributions are related thematically and depend on the definition of the conference.
2. Proceedings as an output of a solution of a scientific-research project – the contributions are the result of the work of a team of authors who can work on the theme from various points of view.
3. Proceedings as an overview of an institution’s research activities – the contributions can differ according to the focus of the researchers.

The advantage of proceedings is again flexibility in bringing up new findings, while the disadvantage of some titles may be their worse availability. This complication usually disappears with the option of electronic proceedings.

Again it is time to remind the student to be careful in choosing sources that will be used in the thesis. Popular, unverified and unprofessional sources, and in extreme cases typomaniacal sources, are irrelevant. A maximum level of critical consideration is desirable for sources available on the Internet, especially if a full-text search is used.

**2.4.2 Locating Information Sources**
To write a thesis, one must gather a significant number of sources. There are several options for how to achieve this.

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12 A current indicator of a journal’s quality and professionalism is, for instance, its record in special databases.
**Bookshops**
Depending on the chosen topic, one can visit a bookshop, especially if it is specialised. There the student can buy the sources he/she is convinced will enrich his/her collection of specialised literature. These can be publications on research methodology, review publications providing basic insight into the issue, specialised monographs, etc. The limited availability of publications as well as the financial demands associated with book procurement will lead the student to seek institutions that offer a substantially higher selection of sources for a minimal (or no) fee.

**Libraries**
Such services are primarily offered by libraries. There are libraries with varying levels of generality or specialisation:

- National – in our country the National Library of the Czech Republic, the Moravian Library
- Regional – scientific, study, regional
- Basic – municipal
- Specialised – focused on a certain field, e.g. university (central, faculty, departmental, etc.), pedagogical, technical, law, etc. Apart from these libraries, specialised libraries also include school, bishopric, monastic and other libraries.

**Catalogues**
To look for sources in individual libraries, one uses catalogues that include all the titles owned by the library. In the vast majority of cases, libraries have electronic catalogues that allow one to search their book stock according to authors, titles, key words, etc. When libraries work together, there are union catalogues in which one can find all the items from the participating institutions.

**Databases**
One can also use databases to search for sources; they have a primarily bibliographic function, i.e. they gather information about existing sources, but not always about their location (the location of the source is executed subsequently). Today, one increasingly encounters databases interconnected with catalogues and linking directly to the document location. Other databases are focused only on electronic sources, which offers the advantage of viewing their abstracts or full-text versions.

Access to databases is usually subject to fees, which can be resolved by visiting a library or other institution (university) that has paid for access to the
database. Some libraries offer the possibility of using the database from any computer based on registration data.

Specialised databases that are excellent for looking up information for one’s thesis are Web of Knowledge, Sage, Muse, etc.

**Archives**
Specific information can be found in public or private archives that include historically, culturally or otherwise valuable written documents related to the activities of public institutions, legal and natural entities, etc. Again, the structure of public archives has several levels:

- National Archive, Moravian Archive
- Regional archives
- District archives
- Specialised archives, etc.

Specialised archives also include university archives that provide access to theses defended at the particular institution of higher education. Visiting them to research discussed topics and discover theses on similar issues is a step that will provide the student with valuable experience regarding the work done on the issue in question, but also on the overall structure of the thesis. If a student is looking for an inspiring thesis, it is possible and also desirable to look at the attached opinions of the thesis supervisor and thesis opponent that hint at the thesis quality.

### 2.4.3 Information Research and Other Services

The primary principle of writing on any topic is to follow up on what has already been discovered, done and written on the issue in question.

**Information research**
For this purpose, information research has an irreplaceable function, for it serves for looking up information in printed and electronic sources based on entering the topic or a key word. Its function is therefore the discovery of already existing information on the selected issue.

Information research is thus a function of creating a list of available sources related to the chosen topic. It can either take the form of a mere list of individual titles with basic publishing information or can be accompanied with abstracts.
Depending on the library, information research is subject to a fee as it is carried out by a professional worker; however, it is possible and also desirable for the student to carry out his/her own information research or at least in parallel with the help of available databases. One can ask a library employee for brief information on how to carry this out.

**Interlibrary loan**

In his/her quest for relevant information, the student is not limited only to the sources available in the library he/she visits in person. Union catalogues and databases provide records of the titles available in other domestic or foreign libraries. The majority of libraries participate in the interlibrary loan project, through which the selected publication can be sent for loan for a limited period of time upon the request of an authorised person (a library employee).

To use this service, one must complete a form with basic information about the requested source and its location.

**Access to databases**

As mentioned earlier, libraries provide access to selected databases to which they own a licence and have access. To work with this search tool effectively, it is recommended to ask for a consultation with a library employee.

**2.4.4 Working with Literature**

The number of information sources that should be used for a bachelor’s or a master’s thesis is usually not set. The recommended number for a bachelor’s thesis is approximately 20 titles, while it is 30 titles for a master’s thesis, with some of them consisting of foreign literature that has not been translated into Czech. Slovak publications are not usually considered foreign sources. It is advisable (and in the case of a master’s thesis even desirable), and not only in the event that there is no available information for the theoretical part in Czech, to view and work with foreign-language sources, for instance using electronic databases in libraries. They allow – as has already been mentioned – access to specialised periodicals that offer the latest findings and are relatively easy to search based on key words. Contributions from serial publications usually increase the value and quality of the text, and therefore should be a natural part of quotations.

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The number of processed sources is not negligible, and therefore one needs a thought-through and systematic process in terms of effectiveness. Situations when the student knows that he/she has read the relevant information somewhere (but inexact or insufficiently saved in his/her memory) are unnecessary, unpleasant and sometimes even frustrating, and result in one going through various books, papers and documents until the information is found by accident.

When the student has gathered his/her sources, their analysis must be carried out. The expectations associated with the richness of the content and the usability of the information are not always fulfilled. Therefore, it is advisable to first skim through one’s chosen sources to get a rough idea of their usability. The student then returns to selected sources or sections, even repeatedly, to study them in more detail and to work with them. At this stage, underlining or other kinds of highlighting are suitable, making notes (of course only if one has their own copy or copied material), inserting bookmarks, etc. Excerpts (verbatim or paraphrased) are also tried and tested, but these must always be accompanied with a bibliographic citation. When working with an entire publication, one must create a synopsis.

The process of working with literature is usually done in a circular fashion, and that is why the student repeatedly returns to selected sources, or looks for new ones, when he/she gains a deeper insight into the issue. It is therefore not wrong if one accumulates certain information for possible future use.

Subsequently, sorted information is united into meaningful wholes. One must create continuity or a gradation of ideas so that one does not merely add individual sections one after the other without a particular outcome in the form of a critical assessment and a detached perspective.

2.5 Data Collection for the Research Part

If the thesis is of the theoretical-empirical type, its substantial part is research whose results are provided in the thesis’s second part. Data collection for the realisation of a research survey reflects one’s chosen investigative approach. Based on the determined research problem and after agreement with the thesis supervisor, the student can opt for a qualitative, quantitative or combined approach. At any rate, it is always the rule that data collection should take

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14 The issue of methodology is so extensive that it cannot be dealt with here in more detail. However, there are a number of professional publications that focus on this area.
place only after sufficient professional preparation so that this serious phase is fully utilised. Many times there is only one opportunity to collect data. If we find later that in the questionnaire some questions were wrongly formulated, some were missing, that we did not ask about key information in an interview because we had not sufficiently prepared for it, or that we had not made corresponding notes when analysing documents or observations, this situation may not be remediable. To prevent such complications, it is advisable to conduct a so-called pre-survey, if possible.

Depending on the orientation of the research, one can collect data through questionnaires, tests, interviews, observations, experiments or product analyses. However, one must determine one’s research objectives, hypotheses and questions (and the methods for answering them) in advance.

2.6 Data Assessment and Comparison with Older Findings

The method of data assessment stems from the chosen methodological approach and the particular method selected for data collection.

With regard to the quantitative approach, it is advisable, particularly with a master’s thesis, to use not only descriptive analyses (frequency analysis, average, modus, median, standard deviation, etc.), but also inductive statistical processes (correlation, factor analysis and other processes to determine relations or differences between data). For an overview, it is suitable to consider the use of graphs or tables. The results of this analysis are interpreted and compared with earlier findings that are part, among other things, of the theoretical part.

The qualitative approach employs a different method of data processing; the data is provided in its original form or coded and assessed through analysis and interpretation. Selected parts of an interview or an observed situation are interspersed with theoretical input and interpretation. Occasionally, numerical data related to coding can be presented.15

2.7 Writing of the Thesis

The actual writing of the thesis is an ongoing process that of course overlaps with the other aforementioned phases. Based on current needs, it is natural to discover new sources, to find new a context with the obtained results, etc.

In the thesis project, the student defines the text’s structure and outline, which do not have to be adhered to exactly. More exactly, the student can focus on the chapters as he/she wishes, but he/she must pay attention to the text’s continuity.

One also must count on the fact that the first draft of the text will definitely not be the final one and that quite a long process of checks and adaptations, even lengthy ones, will follow. Whether the thesis is written according to earlier specified content or the chapters are created at random, there is a lot of time between the start and the end of the writing and during this time many things can change. Therefore, when reading and checking the first and later versions of the text, one must make more significant interventions resulting not only from increased knowledge, a new perspective on various phenomena, or the discovery of a new context, but also from a more complex and longer reading of the text during which possible discrepancies, inaccuracies or information requiring addition are discovered. The aforementioned interventions do not always take the form of adding to or expanding the text. On the contrary, many times sentences, paragraphs and even whole sections are deleted from the text. There is an abundance of changing of the formulation of sentences into those that are more precise and effective, both formally and content-wise.

**Review Questions and Tasks**

1. Define the difference between the qualitative and quantitative approaches to research.
2. What research strategy and what methods would you choose to investigate the use of electronic communication by adolescents and why?
3. What circumstances should be taken into account when determining the topic of a thesis?
4. What are the duties and rights of the student with regard to his/her thesis supervisor?
5. Create a research project that will focus on detecting the climate of a school class.
6. Find libraries within 20 km of the institution of higher education you attend and with the help of their catalogues discover the stock the libraries have available. Do they include specialist sources from your field of study?
7. Make an enquiry about what databases the university library offers access to, find out about their focus and learn to work with one of them.
8. Have information research done or do it yourself on a selected topic (e.g. moral dilemmas, learning styles).
9. Do information research on the topic of non-verbal communication by borrowing five titles and evaluating their scientific level. Is there a popular-science title among them?
10. Create a synopsis of one specialist publication on the topic of intelligence.
11. Find out what periodicals (also in a foreign language) specialise in a selected field, e.g. psychotherapy.
12. Visit the university archive and learn about theses that have been written on a topic similar to the one you intend to write about.

Quotations and Bibliography


3 Thesis Structure

Objectives

After studying this chapter:

- You will be able to create a thesis as a whole composed of an introductory part, the actual text, and a concluding part.
- You will know the content of individual mandatory and voluntary thesis parts.
- You will be able to put the required and voluntary thesis parts in the correct order.

Terms to Remember (Key Words)

- annotation
- table of contents
- key words
- introduction
- conclusion
- appendix
- list of literature
- bibliography

According to the chosen topic, the student can use the theoretical or theoretical-empirical model for his/her thesis. The latter model is much more frequently used and more advantageous in terms of the primary requirement, that the thesis be of benefit: it includes the student’s own research, which perhaps not being of great significance, is of benefit to the actual student, because conducting research is quite a complicated task. The theoretical thesis model is suitable for analytical, historical, methodical and other theses.

The mandatory parts of a thesis stem from CSN ISO 7144 – Formální úprava disertací a podobných dokumentů (Presentation of Theses and Similar Documents), which is usually the starting document for the specific requirements stipulated by individual institutions of higher education. This standard is not binding, and therefore individual institutions can have varied requirements regarding the inclusion of mandatory parts or their order.

Formally, a thesis can be divided into:
3.1 Introductory Part Before the Actual Text

The introductory part contains information that will enable one to quickly become oriented in the thesis, but also to archive it properly. In addition, it also includes some official acts.

3.1.1 Front Page

The front page contains the basic identification data:

- the official name of the school, faculty and department to which the thesis is being submitted,
- the title of the thesis (including possible subtitle),
- the type of thesis (bachelor’s or master’s thesis, viva voce examination, dissertation),
- the name and title of the author,
- alternatively, his/her study programme and field of study,
- the name and title(s) of the thesis supervisor,
- at the bottom of the sheet of paper, the place and year in which the thesis is being submitted.

The front page is included as the first page of the document, even though visibly one starts to number the pages only with the actual text.

3.1.2 Cover

The cover contains a selection of this data, namely the school and the faculty, the type of thesis, the name of the author, and the year in which the thesis is being submitted.
3.1.3 Errata (Corrigenda)

If, in the already printed and bound thesis, one discovers overlooked errors, inaccuracies, typographical errors, etc., one can indicate these and correct them on a separate sheet of paper entitled ‘errata’ or ‘corrigenda’. This list is inserted after the front page. The errata header includes the title, the author, and the date and place of submitting the thesis. In the text, the page and line numbers are provided with the incorrect terms and their correct forms.

3.1.4 Thesis Registration

The front page is followed by a copy of the thesis registration obtained from the school’s information system. The thesis registration contains basic information about the future work, namely the topic; annotation; the names of the author, thesis supervisor and thesis opponent; and basic literature (see earlier in the text).

3.1.5 Declaration

The declaration of one’s independent writing of the thesis has the function of a preface; with it, the student confirms that he/she is the author of the thesis and that he/she has provided all used sources and literature. The text can have the following form: ‘I hereby declare that I have written this bachelor’s (master’s, etc.) thesis under the leadership of the thesis supervisor on my own and that I have provided all used sources and literature.’ Other wording options (based on Dean’s Decision no. 17/2009, PdF UHK) are either: ‘I hereby declare that this thesis is an original work that I have written (under the leadership of the thesis supervisor) independently and that I have properly quoted all sources and literature that I have worked with.’ or: ‘I am declaring that I have written the thesis independently and have indicated all used sources and co-authorship.’ The declaration is positioned at the bottom of a separate sheet of paper.

3.1.6 Annotation in Czech

Annotation in the form of a bibliographic citation of the thesis (see CSN ISO 690) is mandatory. In addition, according to the standard CSN ISO 214 –
Abstrakty pro publikace a dokumentaci\textsuperscript{16} (Abstracts for Publications and Documentation), an actual description of the thesis is provided that presents and summarises the most important information in 10 to 20 lines, i.e. using 100 to 200 (250) words. The annotation structure consists in the first place of the definition of the author’s intentions and thesis’s objectives. Furthermore, in the case of a theoretical-empirical thesis, one provides the methods and techniques used for experimental activity. In the case of theoretical theses, this place is occupied by the primary documents and data sources and the methods of their processing. In addition, the most important results and the context, application, recommendations, etc. stemming from them are briefly described.

It is not advisable for the annotation to be identical to the description of the future work as entered in the school’s information system, to be written in the future tense, or to be too general. The text should be as formal as possible, written in the third person, using verbs in the active voice. In the majority of annotations, it is recommended to use only one paragraph or to divide longer annotations into more paragraphs to better arrange the text.

The annotation page also contains three to five key words. The function of the key words is mainly for searching in a library catalogue. Therefore, they must capture the content of the thesis as aptly as possible. These can be individual words or phrases.

\subsection{3.1.7 Annotation in a Foreign Language}

The next page is devoted to foreign-language annotation, including the bibliographic citation and key words; all this is translated into English, French, German, Spanish or Russian. The structure of the foreign-language annotation is therefore identical to the annotation in Czech, as it complies with an international standard.

\subsection{3.1.8 Table of Contents}

The table of contents contains the introduction, conclusion and numbered chapters including individual sections and sub-sections, followed by the lists of used sources, alternatively the list of recommended literature, and appendices. Each item is accompanied by a page number on which the chapter begins, and

for better arrangement it is recommended to connect this information using leader characters. The indentation that places the title of the chapter, section and sub-section should be based on the longest numbering of a chapter so that all titles are below each other.

The thesis’s table of contents to a large extent corresponds to its outline, as it has many points that correspond with the project, which includes the process and specifies the concrete areas on which the thesis will be based. The table of contents is thus also a guideline for the chronology of activities associated with working on the registered topic.

A tested function that helps create the table of contents is its automatic creation in word-processing editors; however, its use assumes that we will work with our own or pre-defined styles.

3.1.9 Lists of Figures and Tables

If applicable, lists of figures and tables that make looking up information in the text easier are inserted after the table of contents. The list of tables and figures (photographs, graphs, drawings) consists of the number of the figure, its title, and the page on which the figure is placed. To facilitate one’s work, it is advisable to use the functions of a word-processing editor which is able to create such lists and, if needed, automatically re-number them. The author will therefore not spend a lot of time re-writing the text, if there are changes to the text itself.

3.1.10 List of Abbreviations and Used Symbols

If abbreviations and symbols are frequently used in the text, it is necessary, apart from there being an explanation in the text when one appears for the first time, to state them in a list of abbreviations and used symbols that is included for the reader’s better overview and easier orientation.

3.2 Main Text Part

The main text part consists of the introduction, the actual text, and the conclusion. The introduction and the conclusion are chapters of fundamental importance, because on a few pages they summarise all of the important information and also point out the student’s capability to formulate this
information in a brief, clear and well-arranged manner. A large number of theses have the character of compilations, and the introduction and the conclusion then become an important source of information about the author, as they are usually his/her unique product filled with a number of his/her own thought processes and formulations. Thus, precise consideration and writing are desirable, also because these sections are read most often and sometimes are the only sections to be read. The length of the introduction and conclusion is between one and three pages each. Even though they are fully fledged chapters, the introduction and the conclusion hold a specific position and as such are not numbered, even though the number 0 is possible to use for the introduction. The introduction is the first page that is visibly numbered, even though the preceding pages are also included in the numbering.

It is not advisable for the introduction and the conclusion (or even the annotation) to be similar to a large extent. Some analogies are desirable, especially reminders about the thesis’s objective and the process of its fulfilment, but one must prevent duplicate information, which, when appearing repeatedly, is rather disruptive and devalues not only these sections. On the other hand, one must strive for mutual continuity, i.e. for the conclusion to follow the introduction and to bring the unravelling of the problems defined in the introduction.

It is not necessary for the introduction and the conclusion to be written in chronological order. Many times when one is clueless during the formulation of the introduction, this can cause scepticism and almost chronic procrastination regarding the writing of the thesis. In some cases, therefore, it is advisable to write the introduction as the last chapter, even though this advice cannot be preferred as a rule. The ability to formulate the introduction attests to the exact idea of the thesis’s significance and of the process of activities and expected outcomes, which is of key importance for the meaningfulness and quality of one’s work on the topic.

### 3.2.1 Introduction

The introduction is a key section in which the motives that have led the student to work on the chosen topic are expressed. A student’s own interest in the issue, a feeling that the topic has been insufficiently worked on in the specialised literature, and/or a desire to find an answer to a problem that has occurred for instance in practice or attracted the student’s attention during his/her studies, etc. are frequent motives. One can also state personality and professional prerequisites if they are associated with the investigated topic. One
must consider the level of personal approach so that the text does not make a familiar and lay impression. In addition, the introduction contains a summary of the current state of cognition about the issue in question, i.e. whether the topic has been sufficiently worked on, whether relevant and current literature is available, whether the topic is exceptional, what approaches appear in the investigation of a similar issue, and what makes the approach chosen by the student unique.

In his/her thesis, the student must follow up on the findings available for this issue. In the theoretical part, one can introduce chapters with a brief description and substantiate their order. The introduction also contains a detailed description of the thesis, i.e. its type, but mainly the objectives set by the author for the theoretical and empirical parts and the process leading to their achievement. Therefore, it is advisable to introduce basic information about the methodology used and the manner in which the objectives will be fulfilled. The introduction can also contain important information for the reader.

It is common to write the introduction as the last chapter of the whole thesis, but the author should respect its original function and write it as if he/she were really at the beginning of the study, research or writing process.

### 3.2.2 Conclusion

The function of the conclusion is to remind the readers of the thesis’s objective, to assess its achievement, and to summarise the process, methods and problems encountered during the writing of the thesis. It is possible that during the writing of the thesis, new questions, complications and newly identified problems arose, which should briefly be mentioned in the conclusion in order to hint at the next possible direction of one’s research. However, this is certainly not a summary or a continuation of the previous chapters. In a well-arranged manner, results related to the set goal should be written here, as should whether the hypothesis was confirmed or rejected, whether the objective was correctly formulated, whether the research questions were answered, etc. Little connection with one’s research, mere continuation of the text, and too general and vague a summary that provides only an approximate idea of the real content and benefit of the thesis are among the most frequent mistakes.

The conclusion summarises the entire thesis in terms of:

- the content – comparing obtained findings from earlier theories and research with one’s own findings;
• the methodology – assessment of the use of adequate methods, techniques and tools (especially self-created ones);
• the possibility of result application – application in practice, how the results should be handled, and how they should be followed up on;
• the possibility of further research directions – how the topic can be further developed research-wise, what its undiscovered areas are.

Even though this is a text that should really be written as the last, it should be written freshly and precisely and should not give the impression of being written in the throes of death. As mentioned earlier, this is the part of the text that is read most frequently, and therefore it is many times the only impetus for the reader to create an attitude towards the entire master’s or bachelor’s thesis.

3.2.3 Actual Text

The actual text contains the theoretical part, i.e. the assessment of the current state of cognition, and is followed by the empirical part, which reflects the particular type of thesis and field of study. The text is structured into main chapters which can further be divided into sections and sub-sections. For good arrangement, a maximum of three levels of division is recommended. Each main chapter must start on a new page. In the first sections of the theoretical part, it is advisable to define the main terms and to determine the terminology that will be used throughout the text. The methodological and empirical parts contain a definition of the research problem or hypothesis, the methodology used, a description of the research sample, actual data and their interpretations, a discussion, and a summary.

There is no binding instruction on the ratio of the theoretical and empirical parts, but it is expected that their length will be similar.

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3.2.4 Citations

The main text part is concluded with the list of used literature, entitled 'Citations' according to ISO 7144. This list starts on a new page, immediately after the main text and contains only publications that are mentioned in the text. This means that sources mentioned in the text must be contained in the final citations list and vice versa. It is not advisable to artificially expand the citations list as the thesis supervisor and thesis opponent can usually soon see that these are titles that are not very much related to the thesis’s topic and that they are being used only as filler.

According to the CSN ISO 7144 and CSN ISO 690 standards, the citations list is sorted alphabetically according to the surname of the first author. Should there be more publications by the same author(s), the publishing year is of key importance (from the older to the newer). If there are more publications by one author on the list, the ones of which he/she is the sole author have preference. If an institution is the author, the sources are sorted according to the first content word. Online sources, if used, can be sorted separately in the citations list, following the printed sources, but no special list is created for them.

As will be mentioned later in the text, if a citation style in the form of a numerical reference is used, alphabetical order is of course void and the sources are provided in the order of their first occurrence in the text.

Sources which were not quoted in the thesis but which are related to the topic and serve as additional or inspirational material are provided in a ‘Bibliography’,¹⁸ which is positioned in the appendices.

3.3 The Final Part

The final part consists of indices, if required, and additional material.

The index serves for easy information look-up based on key words, names, places, etc. The focus of the index is determined by its title (e.g. name index, subject index, geographical index, etc.). The index is sorted alphabetically, and each key word can contain sub-key words, though in a limited number to preserve the good arrangement of the page. The pages on which the key word can be found are marked with Arabic numbers.

Additional material, for instance CDs and DVDs, is inserted into a paper or plastic pouch attached to the back cover prepared for this very purpose. Additional material can also consist of samples whose method of attachment is usually determined by the special requirements of individual departments.

### 3.4 Appendices

Usually, appendices are not a mandatory component of a thesis. They contain information that is redundant with regard to the main text, that would breach its flow, and/or that is too long. Most frequently, tables, graphs, verbatim transcriptions of interviews, photographic documentation, maps, biographical data of the people discussed in the text, concert programmes, etc. are placed in appendices. One must consider whether such objects should be inserted in the actual text or in appendices, as there is no blanket recommendation. All appendices that are attached at the end of the thesis must be mentioned or referred to in the main text. A bibliography, i.e. a list of recommended literature and other sources for those who would like to focus on the topic more and in detail, can be one of the appendices.

The sorting of the appendices at the end of the entire thesis is voluntary, but each appendix must be entitled as ‘Appendix’ and marked with a letter of the alphabet starting with ‘A’. The next line contains the title of the appendix, with additional information, e.g. a narrative, below. Similarly to the preceding text, the pages of the appendix part are numbered and the numbering continues from the main text (the appendix part does not have its own separate numbering).

### Review Questions and Tasks

1. What parts does the introductory section of a thesis contain and what is their order?
2. What do the introduction and the conclusion have in common? How are they different?
3. What is the recommended order when writing the introduction and the conclusion?
4. What information is placed in appendices and why?
5. Create an annotation of an article in a specialised periodical.
6. Propose an outline (table of contents) of a thesis on the Quality of Life of Secondary-School Students.
7. Create a fictitious bibliography for a thesis on Ethical Education in Primary Schools.

Bibliography


4 Formal Layout of the Thesis

Objectives

After studying this chapter:
• You will be able to write a specialised text in accordance with the rules pertaining to the formal layout of the document.
• You will be able to label tables and figures correctly.
• You will be able to set the document parameters in word-processing software.
• You will know the cases for which it is advisable to create notes.

Terms to Remember (Key Words)

• thesis length
• standard page
• fonts
• font style
• header and footer
• text layout
• tables
• figures
• notes

4.1 Standard Page Parameters and Length

In the case of a bachelor’s or master’s thesis, the length differs due to their different importance. Depending on the respective department, the minimal length of a bachelor’s thesis is between 30 and 50 pages of actual text, while a master’s thesis is at least 50 to 70 pages long. In both cases the length does not include appendices, lists or the introductory formal components such as the front page, thesis registration, declaration, acknowledgements, annotation and table of contents.

The maximum length of the document is usually not determined; however, significantly exceeding the minimal length can be counter-productive, for instance due to the decreased interest of potential readers or the displeasure of the opponents who may perceive it as the student’s inability to work on a topic within a limited space or as an inability to select information based on its importance and relation to the topic.

19 At the Faculty of Education of the University of Hradec Králové, according to Dean’s Decision no. 16/2013 – Rules for the Registration of a Thesis and Its Writing, the minimum length is 30 pages for a bachelor’s thesis and 50 pages for a master’s thesis.
Due to the use of various types of formatting, it is the custom to use the term ‘standard page’ to determine the volume of the text. This term is not codified in our country, yet it has become quite frequently used, especially in the fields of translating, copywriting and education. A standard page contains 1,800 characters including spaces, which corresponds roughly to 250 words with a font size of 12 and 1.5-line spacing. One must take into account the selected font, which can influence the number of characters per page, and therefore it is useful to monitor the document properties in word-processing software which also includes the function of character count, word count, etc. In this way, one can divide the characters in the entire document by 1,800 and the result is the number of standard pages.

The standard page is naturally influenced by the size of the margins as well. They must be wide enough to allow the binding of the thesis and its copying, and therefore their width is between 25 and 35 mm. The wider margin (35 mm) is usually on the binding side so that it is not less comfortable to read the left side of the page. The remaining margins are usually 25 mm wide.

4.2 Typographic Rules

Adherence to typographic rules enhances the good arrangement of the text, helps structure it, and increases reader comfort.

4.2.1 Font Size, Weight and Style

The font to be used in the thesis is either determined by the internal regulations of the particular institution of higher education or left to the author. Recommended fonts are Times New Roman or Arial for printed texts and Tahoma or Verdana for digital documents. It is desirable to use the selected font in the entire document, even though a change is possible when it comes to titles. It is recommended to use at most three separate fonts in one document. All other fonts disrupt the text and decrease its good arrangement.

To emphasise words or sections, one can choose a different font style (italic or bold); underlining disrupts the font’s baseline and therefore its use is not recommended. Other font changes may apply to its size, i.e. a decrease (for examples or notes) or an increase (mainly in titles). Even these graphic changes should be used sparingly so that the text structure is obvious and well arranged.
4.2.2 Header and Footer

The header usually does not contain any information, and therefore it is useless to place the thesis's title, its author or the particular chapter in it. For this aforementioned purpose, it is possible to do so in very long texts.

The footer is used in theses only for page numbers. When printing one-sided, the footer includes the page number located on the right or in the centre.

4.2.3 Paragraphs

The text of the thesis is divided into chapters, sections and sub-sections which include paragraphs. If 1.0- or 1.5-line spacing is used, one leaves an extra line between the individual paragraphs or one increases paragraph spacing. In such cases it is not necessary to indent the first line.

Before printing the thesis, the author must check whether the document does not contain so-called orphan lines, i.e. a paragraph-opening line at the end of the page, or an orphan title.

No line in the text should end in one-letter words (e.g. ‘a’). Furthermore, a line break cannot split an abbreviation of two or more words (‘a.s.’, ‘č.p.’, etc.), an abbreviation of the name and surname (‘P. Novák’), or a name and a title (‘Dr. Novák’). These requirements can be achieved by inserting so-called non-breaking spaces that will not allow selected elements to separate at line breaks.20

4.2.4 Chapters, Sections and Their Titles

For it to be arranged well, the text is divided into chapters, sections and sub-sections that are numbered and titled.

For numbering chapters, a maximum of three levels is recommended, with each additional level lowering the text’s good arrangement. The number of a chapter or section is composed of Arabic numbers, and the individual levels are

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20 In MS Office Word, a non-breaking space is entered using the keys Ctrl + Shift + Space.
separated by a period (without spaces). A period is not written after the last number.

Example: 2 Title of the chapter
2.1 Title of the section
2.1.1 Title of the sub-section

The title of the chapters must be as succinct and as brief as possible. Titles exceeding one line should occur only in exceptional cases. The title of a chapter or section is not followed by a period. Each chapter (not necessary with sections and sub-sections) begins on a new page.

It is of maximum advantage to use pre-defined styles for chapters and their sections in word-processing software. Their advantage lies primarily in the possibility of creating the table of contents and in flexible reactions to changes in chapters, namely in their order and number.

4.2.5 Spaces

A space usually follows immediately after a punctuation mark (not before it), though there are a number of exceptions:

Among other things, a space is left out:
- before and after a dash (Czech-English)
- before and after a slash (2012/2013, m/s)
- before and after an en dash if its meaning is to, until (1990–2000, pp. 25–31)
- if more punctuation marks follow each other (etc.)
- when writing superscripts and subscripts ($H_0$, $a^2$)...

4.2.6 Lists

If the text includes elements, items, points, parts, etc. in a numbered list or a bulleted list or a list starting with letters of the alphabet, it is possible – depending on the type of individual items, but also on the preferences and feeling of the author – to select one of several options.

There are several possibilities for executing lists:
1. Items are concluded with a comma or a semicolon, apart from the last item which is concluded with a period.
2. Items are concluded with a period, especially if the item has the nature of a whole sentence.
3. Items are listed without a concluding punctuation mark, e.g. if they are single words or phrases.
4. Sufficiently graphically different items are not concluded with a punctuation mark, not even the last item.
5. Longer items can be listed without indentations and numbering if they are longer and paragraph spacing is increased.

The first sentence usually ends with a colon. It is followed by the first item, which can start with a capital or small letter; however, a capital letter is more suitable with whole sentences. The opening text and the list itself can be separated by an extra line (or increased paragraph spacing), and there is also an extra line at the end of the list.

4.3 Inserting and Describing Objects in the Text

The main text may also contain tables or figures which include graphs and pictures such as drawings, models, schemes, diagrams, photographs, etc. Before placing these objects there, one must consider whether it is suitable to place them directly in the actual text of the thesis or whether they are more an accompanying feature and therefore more suitable for inclusion in the appendices.

All objects included in the text should be mentioned in the actual text to prevent the reader from becoming disoriented and to allow him/her to immediately view and compare the information in the text with that in the table or figure. In this case, one writes the type and the number of the object (e.g. ‘As stated in Table 8...’, ‘As it appears in Graph 3, the respondents prefer...’). It is desirable to number tables and figures separately.

4.3.1 Tables

Tables are inserted in the main text should they enhance its good arrangement, comprehensibility or illustrative nature. If possible, they follow immediately after they are mentioned in the text for the first time, announcing the data in the table. According to the CSN ISO 7144 standard, each table must be clearly indicated with the term ‘Table’, its chronological number (Arabic number), and a succinct title. Similarly to titles, this description is not concluded with a period.
An en dash is placed between the number and the title of the table. The title is written horizontally and is placed above the table outside its borders.

The numbering of tables can:

- be gradual regardless of individual chapters – e.g. Table 5 – Title (the fifth table in the entire text);
- depend on the numbering of the chapters – e.g. Table 5.2 – Title (the second table in the fifth chapter) or Table 5.2 – 3 – Title (the third table in Chapter 5.2).

### 4.3.2 Figures

The general term ‘figures’ is used for various graphic objects. Similarly to tables, they must also include a title, which, however, is only opened with the word ‘Figure’ or its equivalent and is placed below the object. If the figure fills an entire page, its caption is placed in the bottom margin of the opposite page. All figures are numbered in the order that they appear in the text regardless of their type. Figure numbering is similar to table numbering.

### 4.4 Notes

Notes contain specific information that complements the main text or that is of marginal importance. Most frequently, footnotes are used for this purpose and are referred to in the main text with a number written in superscript. Subsequent numbering of footnotes is used for the entire document. The actual footnote text is positioned under a line (three to five cm long and starting from the left margin) at the foot of the page, even if the page is incomplete.\(^{21}\)

Word-processing software offers the function of inserting footnotes with automatic numbering, which is of great help during the standard creative process associated with various changes and corrections.

### Review Questions and Tasks
1. What is the usual definition of a standard page?
2. What are the margin widths in a bachelor’s and master’s thesis?
3. What fonts are suitable for use in a thesis?
4. How many fonts, sizes and styles are desirable to be used in a thesis?
5. What information is contained in the header and the footer?
6. What are the possible options for lists?
7. What is a non-breaking space, where is it used, and how is it created using word-processing software?
8. Create a thesis template and define the styles that you will use.
9. Create a document with any text into which you will place a table with data and several figures. Label these objects appropriately using the ‘Insert title’ function and insert a list of tables and figures.
10. Divide the same document into chapters, sections and sub-sections (using the word-processing software’s ‘Styles’ function) and insert a table of contents at the beginning of it.

### Citations and Bibliography


### 5 Linguistic Aspects of the Thesis

#### Objectives
After studying this chapter:

- You will have an overview of the basic forms of written expression.
- You will know the selected attributes which characterise specialist language.
- You will understand the significance of the linguistic quality of the thesis.
- You will be able to plan and organise the process of language editing.

### Terms to Remember (Key Words)

- the author’s ‘we’
- the inclusive plural
- specialist language
- writing technique
- orthography
- punctuation
- language editing

The quality of a thesis is assessed not only in terms of its content and form, but also in its linguistic style. If an original text with valuable content is burdened by stylistic deficiencies or orthographic mistakes, this will most probably lead to a lower assessment (often unnecessarily) by the thesis supervisor and thesis opponent, a more complicated defence procedure, and/or the lower credibility of the entire text and its author. Linguistic mistakes also often hint at a lack of time, which usually results in the shallow and rushed writing of the thesis without it adequately maturing. The following sections are thus devoted to the linguistic demands placed on specialist texts and reflect the most frequent errors which occur in theses.

#### 5.1 Author’s Expressions

Until recently, specialist texts were dominated by the so-called author’s ‘we’, demonstrated by using the first person plural even though the author of the text is a single person.

Example: We are now submitting our own classification of musical abilities.

This style of writing was the result of a certain convention or was an expression of the author counting on his/her readers having the same knowledge, attitudes, and experience, and thus all belonging to one interest group (the inclusive plural).
Example: Frustration is an unfavourable state which we can resolve through a defence mechanism.

Currently the author’s ‘I’ is used more often, which was earlier typical only for the introductory and concluding parts (e.g. to convey one’s motivation for the choice of thesis topic and to summarise the benefits the processing of the topic brought to the author). Today, written expression in the first person singular is no longer an unusual phenomenon.

Example: The results of my research have shown that …

Another technique is to use the passive, which offers the possibility of de-personification and a neutral impression, because the author’s person is expressed in it only implicitly. This is passive expression which demonstrates a certain distance and is a certain compromise between the author’s ‘I’ and the author’s ‘we’, if their use is strange or unpleasant for the student.

Example 1: In a questionnaire survey it has been found that ...
Example 2: Through the obtained results it has been confirmed that ...

With regard to the fact that theses are created in co-operation with thesis supervisors and consultants, using the author’s ‘we’ or the passive is usually appropriate. In addition, this form of expression shows a certain humility that will certainly not harm the reader’s impression.

5.2 Specialist Terminology

The use of specialist terminology in a thesis is a given. If the student can work with it appropriately, it increases the quality of his/her work. However, one must consider not only the experts who will read and assess the thesis, but also possible readers from the ranks of a less informed public interested in the topic. Therefore, the excessive use of specialist terms – especially foreign words – can be counterproductive. For instance, an overabundance of specialist language can lead to doubts about the originality of the text and vigilance related to the citing of used sources. Specialist terminology should be used only when there is no succinct colloquial expression, if it is a term which is generally known or
specific to the selected field.\textsuperscript{22} The other extreme, i.e. vocabulary that is too popular, too familiar or too non-specialist, is also not appropriate.

The writing style should be particularly informative, descriptive, explanatory\textsuperscript{23} or contemplative, so that the text does not give a narrative impression and so that it maintains its specialist level. In particular, case studies and other types of qualitative research studies are threatened by narration; one must maintain distance, a detached view, some sort of non-participation and coldness.

The excessive inclusion of the readers into the manner of expression also has a negative effect, as it is more typical for oral and not written communication.

Example: In the following chapters we will have a look at ... Now we will try to understand the essence of this phenomenon ...

\section*{5.3 Selected Czech Orthography Rules}

In the following text, some orthographic phenomena will be mentioned that are sometimes not mastered properly in theses. For a full overview of the issue, one must consult the Czech Orthography Rules.\textsuperscript{24}

\begin{verbatim}
Viz www.pravidla.cz, norma ČSN 016910
Velká písmena
Předložky a předpony S, Z
Mě, mně
Spřežky
Spojovník
V ANGLICKÉ VERZI NEBUDOU!
\end{verbatim}

\subsection*{5.3.1 Punctuation marks}

With a few exceptions, one must adhere to a unified format when writing punctuation marks: a punctuation mark is connected to the previous word and is followed by a space. This rule does not always have to apply to dashes and

\begin{thebibliography}{99}
\end{thebibliography}
ellipses. Below you will find selected orthographic phenomena in terms of the frequency of their erroneous use.

**Periods**

Periods are not written at the end of titles that are graphically separate, at the end of captions for figures or titles of tables, etc.

**Question marks and exclamation marks**

Apart from interrogative sentences, a question mark is also used to express doubt or uncertainty about the significance of a statement or the facts included therein. When transcribing a citation with a doubtful fact or a grammatical error, instead of using a question mark it is advisable to use the word *sic* in square brackets so that it is clear that it is not a transcription mistake but a verbatim transcription.

Apart from imperative and exclamatory sentences, an exclamation mark can be used to emphasise a fact that surprised one or took one aback. In this case, it would be placed in parentheses.

**Colons**

A colon is most frequently used for lists, in which it follows immediately after the opening text. Other types of use include as an opening for a citation or an explanation of or a complement to a statement.

Example 1: An attitude includes the following components: cognitive, feeling and action-tendency.
Example 2: Kohlberg’s theory of moral development tends to be criticised: the research was conducted on a sexually homogeneous sample.
Example 3: Sedlák claims: ‘The necessary starting point to realistically capture musical abilities is the activity category and widely established musical activity.’

**Quotation marks**

Both opening and closing quotation marks are situated above the word. They are used to mark a quotation or a non-standard or colloquial expression or phrase. Their presence can also signal a possible change in meaning to the reader.

Example: Children who have a ‘strange’ character and tendencies are at risk.
If an entire sentence is cited verbatim, the period is placed before the closing inverted comma as opposed to a phrase marked by quotation marks.

Example: Children whose character and tendencies are somewhat ‘strange’ are at risk. ‘Children who have a strange character and tendencies are at risk.’

If two levels of inverted commas are to be used, double quotation marks are used for the enclosure.

Example: Matějček speaks about children’s homes as a potentially risky environment: ‘However, in some the risk has “materialised”, while in others it has not resulted in any consequences.’

**Dashes and hyphens**
Dashes and hyphens may seem similar, but their small differences need to be respected.

A **dash** has spaces on both sides and is longer and thinner (—) compared to a hyphen. A dash is often used instead of commas when inserting text into a sentence, but it can also have the meaning of *versus* or *to*. However, in the last example the words adjacent to the dash are not separated by spaces.

Example: Page 14–16, opening hours 8:00–18:00

Within the framework of continuous text, it is better to use the word *until, to*, etc. instead of using a dash. Typographically, one must verify that dashes before inserted text do not appear at the beginning of a line (non-breaking space).

Compared to a dash, a **hyphen** is shorter and thicker (–) and is connected to its adjacent words without spaces. It is used particularly when connecting two words, or with words whose second part is similar.

Example: Czech-English dictionary, five- and six-year-old children, pedagogical-psychological diagnostics

**Ellipses**
Ellipses are separated from the previous and following words if they are used to shorten a quotation or for an incomplete list.
Example 1: If an individual gets into a stressful situation, ..., he/she can assess it as an opportunity to strengthen.
Example 2: The psychological symptoms of stress are worse concentration, moodiness, indecisiveness, ...

**Parentheses**

Parentheses are not separated by a space from the text contained between them. Should an entire sentence be placed in parentheses, a punctuation mark (period) is also included. One prefers the use of parentheses in the text, with square brackets being used for possible enclosures.

Example 1: Children perceived a lack of support from their educators (parents, teachers).
Example 2: (Children perceived a lack of support from their educators.)
Example 3: (Adolescent moratorium [postponement] can be found in the literature also under the term identity moratorium.)

The use of parentheses and brackets in bibliographic references and citations is specific (see further in the text).

**5.4 Language Editing**

An important part of the verification process before the submitting of the thesis is language editing, because any linguistic offences present in a thesis containing quality content can lower its value and negatively influence its assessment. Language editing should be done before the last formal changes, because an editor can significantly intervene in the text, e.g. through reproaches for stylistic issues.

With regard to the time the student has spent writing the text, it is highly probable that he/she will be unable on his/her own to objectively assess and check its final version, not only the content, but mainly the formal and linguistic aspects. It is therefore useful to have others read the text, be they knowledgeable on the topic or not, as the more people that read the thesis, the more suggestions and comments the author receives. One does not have to react to all of them, but many times others point out things that the student cannot see due to his/her author's blindness and which are good to incorporate.
For the purposes of editing digital versions, the function of inserting new comments is a useful tool in word-processing software; in Microsoft Office Word, one can find this function in the Review tab.

Review Questions and Tasks

1. What forms of written expression are suitable to be used in a thesis?
2. What writing styles should be avoided?
3. What are the consequences of the excessive or insufficient use of specialist terminology?
4. When are hyphens and dashes used?
5. What bracket type is used most frequently in a text?
6. What is the minimum number of people who should read the text of the thesis before it is printed?
7. How is it possible to eliminate the overlooking of errors in a text?
8. Find out what possibilities there are for looking up synonyms for foreign words, but also for Czech words and Czech-ised words.
9. Have a look at the latest edition of the Czech Orthography Rules in a library, or consider purchasing it in a bookshop.
10. Borrow various types of magazines from a library and compare their specialist level of expression.
11. Try inserting active comments in a document using word-processing software.

Citations and Bibliography


6 Bibliographic Citations in the Thesis

Objectives

After studying this chapter:
- You will have an overview of the basic formats for saving documents.
- You will be able to save a document in the required format.
Terms to Remember (Key Words)

- ethics of scientific work
- plagiarism
- quotation
- paraphrase
- bibliographic reference
- citation styles
- printed documents
- electronic documents

6.1 Plagiarism and the Purpose of Source Citation

From the essence of a thesis it follows that the student must follow up on the cognition achieved with regard to the chosen issue. Therefore, one cannot do this without using someone else’s thoughts, statements, opinions or theories. These products of other authors are used when one needs to summarise various opinions, findings or theories, question them, and oppose them; alternatively, one can also agree with them and use such findings as arguments supporting one’s own thoughts.

However, one must handle someone else’s products in accordance with the laws protecting intellectual property. The ethics of scientific work expect that if someone else’s information is used, this fact must be clearly indicated.

Zbíral considers plagiarism to be ‘any case where a person deliberately, directly or indirectly, for any purpose, uses the published or non-published work of another person with the aim of declaring it as his/her own’.25 This applies to an entire work or a part thereof; it is always a serious transgression of ethical rules as well as the law.26 If there is any suspicion that a student’s thesis could be an act of plagiarism, this fact is dealt with most frequently by the department’s disciplinary committee. The result is usually the forced early termination of one’s studies.

In addition to the thesis supervisor, the thesis opponent is another verification element as regards the originality of the text. It is unwise to underestimate his/her range of knowledge and his/her ability to find material that is not the student’s work and moreover does not include a reference to the source. Even

26 See Act no. 216/2006 Coll., on copyright and rights related to copyright and on amendments to certain acts (the Copyright Act), and some other acts.
though one cannot know all texts, many times the style of writing, which is different from one author to another and can distinguish a professional from a student, can be identified. In addition, the pedagogue can very easily use the opportunities offered to him/her through online search engines.

Apart from human verification mechanisms, there are also artificial and automatic mechanisms whose rate of success when it comes to looking for acts of plagiarism is of course higher. In order to fight plagiarism, the National Registry of Theses and a plagiarism-detection system were launched (accessible via www.theses.cz), co-ordinated by Masaryk University in Brno. This project functions on the principle of a database into which the participating institutions enter their defended theses, while the anti-plagiarism system looks for matches and similarities in the theses themselves and also compares them with selected online sources. Dozens of universities and institutions of higher education in the Czech Republic and Slovakia participate in the project.

As Zbíral points out, the opposite of plagiarism is an excess number of references, i.e. an effort to reference almost every sentence. Even though this strategy is less contestable than the absence of used sources, it is undesirable. This style of writing is usually caused by too much anxiety and an inability to distinguish the author’s expressions from generally known information, and is maybe even an effort to give the text a professional style, but in the end it can be counterproductive, especially if the author does not work further with the cited information in terms of analysis, synthesis, comparison, etc.; the text feels like a mosaic made from someone else’s products only lined up one after the other, and sometimes even without the necessary result towards a clear objective. Furthermore, one often references sources of information, formulations and statements that are generally known, banal or matter-of-fact.

Unfortunately, it is often difficult to distinguish when to reference a source and when not to. This skill assumes experience with writing specialised texts and is significantly augmented by their reading. When the student is in doubt or is feeling indecisive, it is safer to choose the option of referencing a source.

6.2 Methods of Using Information from Someone Else’s Sources

When writing the theoretical part of the thesis, one must build on the work of other authors who have also dealt with the issue in question. The student should be thoughtful when choosing the sources he/she will use for his/her needs. In particular, one should always work with primary and original sources and with quality translations.

The student can deal with someone else’s products in two ways. The first option is to transcribe them verbatim. In this case, this constitutes a quotation (sometimes called a direct citation) which must be clearly indicated and differentiated from the remaining text. For this purpose, one uses quotation marks, alternatively together with italics. Among other things, a reference to the source then includes its position in the source document, i.e. most frequently the page number(s). Writing an exact quotation is suitable especially if a change to its formulation would distort the significance, if direct speech is used, if the statement includes specific terms and phrases, if it is maximally succinct, if it includes a convincing argument, or if it is analysed or commented on. Even a word-for-word translation of the text constitutes a quotation. A quotation is normally one to several sentences long, but is usually only several words long. Usually, quotations no longer than three lines are used. It is recommended that the volume of quotations does not exceed 5% of the entire volume of the text. If there are grammatical or other errors in the text the student intends to use verbatim, the text must be transcribed as is. One can point out the errors by using [sic]. If part of the original text is left out of the quotations, one indicates this with an ellipsis in square brackets: [...]. Square brackets are a sign that the ellipsis is not part of the original.

Normally, however, one processes someone else’s thoughts through a paraphrase. A paraphrase, or in other words an indirect citation, represents the expression of a thought or information in one’s own words and its specific and original processing, but it is definitely not merely the use of synonyms for selected terms or using a different word order. Even after a paraphrase is used, a reference to the source document must follow.29

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6.3 Bibliographic References and Citations

A bibliographic citation represents a precisely defined format for recording information about a used source which enables it to be looked up on the basis of set identification data. In the case of printed sources, the required information can be found on the front page, in the imprint, and partially on the cover.

The requirements for the form of bibliographic citations are contained in the valid version of the CSN ISO 690 standard (current valid wording from 2011). The standard sets the mandatory and voluntary elements that make up a bibliographic citation, specifies their order, and offers possibilities for making references in the text.

A useful Czech tool for the creation of bibliographic citations is a program available at www.citace.com which generates the reference after filling in a form with the necessary information. Gradual improvements in this tool have led to more user-friendly functions; for instance, after entering the ISBN or the source title, the program, thanks to its connection with bibliographic databases and catalogues, will automatically fill in the remaining data.

A general model of the data contained in a bibliographic citation includes the following items:

1. Author
2. Title
3. Medium
4. Edition
5. Place
6. Publisher
7. Date
8. Periodical numbers and page numbers
10. Edition number
11. Identifier
12. Accessibility


The provision of selected items or their complementing with additional data depends on the type of source, as described below. If a reference element is not provided in the source document but is known or can be found, it is written in square brackets.


The following text contains information on the creation of bibliographic citations for the most frequent types of printed and electronic sources. Information on the remaining types of sources is available in the main text and appendices of the CSN ISO 690 standard.

6.3.1 Author

A document can be created either by a person or persons or a corporation which is responsible for the content of the document, which also applies to online sources. In some cases the author is not unambiguous or identifiable; in such cases further steps are stipulated by the CSN ISO 690 standard.

If the author is a person, his/her surname and then first name are provided. However, this applies only if the person is the sole author. If there are multiple authors, the name of each of them is written in the order usual for one’s country; in the Czech Republic, the first name comes before the surname. In all cases the author’s surname is written in all caps, and the first name is written normally. One can choose between writing out the entire first name or its initial. Scientific and pedagogical titles are not used, except for situations when the authors have identical names.


If the source has four or more authors, one can provide only the name of the first author accompanied with the abbreviation ‘etc.’ or ‘et al.’.
If the author of the document is an organisation or an institution, the first element of the bibliographic citation is its name written in all caps.

There are cases in which the author is hard to find due to a wide team of colleagues creating a joint work (encyclopaedia, dictionary, etc.). In such cases the CSN ISO 690 standard recommends writing the title of the work first (in italics).


### 6.3.2 Title

The source title is most often the book title or the periodical title. Each element of the bibliographic citation should be visibly distinguishable from the others, and therefore the title is written in italics and separated from other elements of the citation by a period. If the title also includes a subtitle, it is written after a colon and only if of fundamental significance.


There is a good deal of confusion about what title to choose if a chapter from a monograph by multiple authors is used. In such cases one provides the title of the chapter or entry, followed by ‘In:’ and the title of the monograph.


### 6.3.3 Medium

Data about the type of medium must be included if it is not a printed source. This information is placed in square brackets. One encounters [online] most frequently, with [CD], [photograph], [sheet music], etc. occurring less often.
6.3.4 Edition

Data about the edition order is mandatory only if the source used is not the first edition. In other cases, one needs to include, at least in abbreviated form, any information specifying the changes made (re-written, changed, expanded edition, etc.).


6.3.5 Place of Publishing

According to the record in the cited source, the place where the document was published is provided. If it is a small place or a place that could be confused, it is advisable to put additional information in parentheses, i.e. region, country, etc.

6.3.6 Publisher

The publisher is the natural entity or company responsible for publishing the work. If it is a corporation, one does not provide its type (e.g. ‘Inc.’, ‘Ltd’).

6.3.7 Publishing Date

This information most frequently contains the year, although with web pages or radio shows, for instance, it is advisable to provide more exact information, if available. If the publishing date cannot be found, one provides the copyright date together with the appropriate symbol (especially for electronic sources).

6.3.8 Periodical Numbers and Page Numbers

These numbers are used mainly when creating bibliographic citations of periodicals in which individual information is equipped with specifying abbreviations or is typographically distinguished. The numbers, therefore, most frequently apply to the volume and issue of the periodical.


Page numbers represent information about the scope of the cited text, both in the case of direct and indirect citations. If an entire book is referenced, the page-number information is no longer mandatory.


When using the style of footnote/endnote referencing (see later in the text), the last information noted in the case of direct citations is the page from which the quotation comes.

6.3.9 Edition Title and Number
If the work was published within the framework of an edition, the obligation arises to provide this information in the bibliographic citation. The edition information is written as it is provided in the source document.


6.3.10 Identifier

The most frequently occurring source identifier is the ISBN (International Standard Book Number), an international number for book identification. Serial publications use an ISSN (International Standard Serial Number), printed music has an ISMN (International Standard Music Number), and selected digital material (documents, photographs, tables, etc.) can be more easily found based on a DOI (Digital Object Identifier).

Example 1: Československá psychologie. Praha: Psychologický ústav AV ČR, 2013. ISSN 0009-062X.

These numerical codes are specifically and systematically created, and knowledge of them substantially speeds up the finding of a particular source. Therefore, their inclusion in bibliographic citations is mandatory.\footnote{This requirement cannot be fulfilled with older sources, as at the time of their publishing, this system of identification codes did not exist.}

6.4 Bibliographic Citations of Individual Types of Printed and Electronic Sources

As mentioned earlier, the student can choose from printed and/or electronic sources.\footnote{The CSN ISO 690 standard, however, also provides guidelines for other types of sources, e.g. for films.} Below you will find general models for bibliographic citations of the most frequently used sources. These models contain the minimum information...
that should be available in the citation. Therefore, it is possible and sometimes even necessary to expand on this information.

6.4.1 Bibliographic Citations of Selected Types of Printed Information Sources

Monograph. The structure of a bibliographic citation of a monograph contains the following mandatory elements:


The number of elements changes when using the Harvard style of referencing (see below), where the year of publication is written immediately after the author(s).


Chapter from a monograph by multiple authors. If the monograph was written by multiple authors, each of whom authored one or more chapters, the bibliographic citation has the following structure:


Contribution in proceedings. Contributions in proceedings, whose origin is usually associated with a scientific conference, have a very similar structure to a monograph chapter. However, there are also scientific-work proceedings, issued by an institution as a result of its professional efforts.

34 Order of edition is a mandatory piece of information if it is not the first edition.
35 The edition name and title are mandatory if the source is published within an edition.


**Contribution in a serial publication.** A bibliographic citation for a serial publication contains selected elements in the following order:


### 6.4.2 Bibliographic Citations of Electronic Sources

**Type of medium.** To clearly distinguish between printed and electronic sources, the latter ones must provide the type of medium in square brackets immediately after the title of the source. Most frequently this is a general term [online]; however, it can be further specified, e.g. [online database] or [online journal].

**Citation date.** Due to the changes in the content on the World Wide Web, publishing information is placed in square brackets, including the date of using the source, i.e. the date on which the source was viewed or opened. This information is opened with the abbreviation ’vid.’ or with the words ‘retrieved on’.

**Accessibility.** A bibliographic citation of an electronic source also contains the URL address, before which the phrase ‘Available at’ is written. If a digital object
identifier (doi) exists, the URL address can be replaced by this code, as it is more stable than the URL address.


If the URL address is too long, its separation at the end of the line will be done after a slash; alternatively, one can hint at the path to the source instead of writing the address.


Electronic book. A bibliographic citation of an electronic book or an online monograph is based on a citation of a printed monograph, but with some additional elements: type of medium (most often online), citation date and accessibility.


Contribution in an online periodical. Even in the case of online journals or newspapers, one provides data characteristic of a printed periodical, complemented with the type of medium, citation date and accessibility (or doi).


6.4.3 Bibliographic Citations of Special Information Sources
**Thesis.** The publisher is not provided in the bibliographic citations contained in a master’s or a bachelor’s thesis. However, additional information includes the type of thesis placed after the year of defence, the institution to which the thesis was submitted, and the name of the thesis supervisor.


**Sheet music.** In the case of sheet music, the composer is written in the author’s place, and the name of the composition can be followed by additional information in square brackets, e.g. the type of sheet music (pocket, study), the opus number, and, if arranged for various instruments, the instrument for which the opus is written.


**Standards.** Similarly to other printed documents, one can provide the institution-related and other data, including the class number.


### 6.5 Citation and Referencing Styles

The in-text provision of complete bibliographic citations is usually superfluous, and therefore in the actual text one references just the source whose full bibliographic record is provided only in the final list. There are several possibilities for referencing sources directly in the text and for writing a bibliographic citation at the end of the document. These possibilities are stipulated in the CSN ISO 690 standard. The individual methods cannot be mixed together; therefore, at the beginning of writing the text the author determines one format that will be used throughout the entire text. The same applies to the structure of bibliographic citations which must contain the same data for the same types of documents. Thus it is not possible to include the ISBN in some bibliographic citations and to omit it in others.
6.5.1 Harvard Style of Referencing

The Harvard style, or parenthetical referencing, is probably the most frequently used style. It is also known as the 'author-date' or 'author-title or author-page' style. The reference in the text is created in the following way: after a certain section, the author of the thesis writes the author of the source and the year in which the source was published in parentheses. If it is a quotation, the abbreviation 'p.' (page) or 'pp.' (pages) and the page number(s) one is citing are written after the year. This option can be changed by writing the name of the author of the source in the text itself and in the parentheses after one writes only the year of publication.

Example 1: Nursery school is not especially beneficial to a child’s development; however, it satisfies the needs of adults, more so than the needs of children. (Matějček 1995)
Example 2: According to Matějček (1995), nursery school is ...
Example 3: As Matějček claims (1995, p. 70), ‘nursery school is a facility for the needs of adults. Children themselves would not invent them’.

If one needs to reference two or more sources by the same author, moreover published in the same year, the individual titles are differentiated by subsequent letters of the alphabet placed after the year of publication.

Example: Nakonečný (1998b) describes a human being’s personality …

The standard does not specify in any more detail how to reference online electronic sources, especially the Internet or a webpage, and available methodologies differ in their recommendations. Therefore, it seems more suitable to use the referencing styles mentioned below. If the Harvard style is preferred, particular guidelines are provided by the institution to which the thesis will be submitted.

The list of bibliographic citations at the end of the document changes the order of some elements. This, however, logically follows this concept and enables

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36 According to the examples in the appendices of the CSN ISO 690 standard, the author and the year in the parentheses are not separated by a comma.
readers to orient themselves better. The surname and name of the author(s) are followed by a comma and the year of publication. The remaining elements of the bibliographic citation are written according to a common model. The author’s surname is also of key importance for sorting the list, which must be in alphabetical order.


6.5.2 Numeric Style of Referencing

The second style of writing references in the text to complete bibliographic citations involves using numeric-style referencing. The individual sources that are cited or paraphrased in the thesis are numbered according to the order of their first mention in the text. Their number is then placed into the text in parentheses or square brackets or written in superscript. When mentioning an already used source again, the same number corresponding to the source’s first mention is used, i.e. the individual reference numbers do not increase with the increasing length of the text.

Example 1: This phenomenon is associated with Gardner’s theory of multiple intelligences. (4)
Example 2: This phenomenon is associated with Gardner’s theory of multiple intelligences. [4]
Example 3: This phenomenon is associated with Gardner’s theory of multiple intelligences.¹

The use of numeric-style references enables one to provide a specific location of information in the source document, i.e. its page number which follows, together with the abbreviation ‘p.’ straight after the number of the used source.

Example: Gardner says that ‘music itself may not express emotions and impressions, but takes on their form’. (There is no separating comma!) e.g. (24 p. 213)

The final list then contains used sources sorted according to the number assigned to them in the text, i.e. they are not sorted alphabetically. This time the numbers are not written in parentheses, brackets or superscript, but are
instead written as ordinal numbers with a period after them. Bibliographic citations correspond to the standard arrangement of elements.


6.5.3 Note Style of Referencing

Note referencing in the text can have the same form as numeric references – in parentheses or square brackets – but it is recommended to use superscript for theses. The numbering is consecutive. If a source is used repeatedly in the document, each entry has a new note number. This style is different from Harvard-style and numeric-style referencing in that one cannot write more references immediately after each other, but one note can contain multiple sources.


When using one source multiple times, one can also proceed in the following way: each additional note will include only the author’s name and reference to the number of the note in which the source was introduced for the first time, using the abbreviation ‘ref.’ (reference). One can (and in the case of quotations must) add the page number on which the information is located in the source document.

Example: 18. GOLEMAN, ref. 12, p. 46.

Each note contains a complete bibliographic citation. They are placed at the end of chapters or sections or at the end of the entire document or they are footnotes (combined with a superscript number as a reference used in the text itself). One can use new note numbering for each chapter or one sequence of note numbers for the entire text. In some texts one encounters new note numbering on each new page. With regard to the parameters and length of bachelor’s and master’s theses, it is advisable to use one sequence of note numbers for the entire document.

If the text is longer, such as in the case of a bachelor’s or a master’s thesis, it is desirable to add an alphabetically ordered list of bibliographic citations of used sources at the end. The bibliographic citations contained therein can be longer and include more elements for the identification of the used source.
Review Questions and Tasks

1. What is the significance of the citations in scientific (and other) works?
2. When can one label a thesis an act of plagiarism?
3. What consequences does the author of a detected act of plagiarism face?
4. Search on the Internet for plagiarism cases and find out how they ended up.
5. Look up additional information about how an anti-plagiarism system functions.
6. What is the maximum number of authors of one source that can be written in a bibliographic citation?
7. What style of font is used for the source’s title?
8. When does a bibliographic citation contain the type of medium?
9. What publisher data is mandatory in a bibliographic citation?
10. When is the number of pages not included in a bibliographic citation?
11. Are the edition and its number mandatory items in a bibliographic citation?
12. What types of source identifiers can you name?
13. What are the specifics of bibliographic citations of electronic sources?
14. Create bibliographic citations of five existing monographs, a chapter in a monograph, an article in proceedings, a journal article, a master’s thesis, a webpage, and an electronic book.
15. Sort the bibliographic citations of the above-mentioned sources into a final list that will correspond to the Harvard style of referencing or the note style of referencing.
16. What are the specifics of bibliographic citations when using the Harvard style of referencing?

Citations and Bibliography


Act No. 216/2006 Coll., on copyright and rights related to copyright and on amendments to certain acts (the Copyright Act), and some other acts.

7 Thesis Submission, Critical Review and Defence

Objectives

After studying this chapter:

- You will have an overview of the tasks to be completed before the thesis is bound.
- You will know the areas on which thesis supervisors and thesis opponents focus within the framework of the review procedure.
- You will be able to adequately prepare for the defence of the thesis.
- You will have an overview of the thesis-defence process.

Terms to Remember (Key Words)

- thesis submission
- review
- thesis defence
- electronic system
- printed and electronic copies
- thesis presentation
- thesis versions

Writing a thesis is the longest and most demanding stage, which, however, is followed by less difficult but still important tasks the student must carry out to fulfil the conditions necessary for the successful completion of his/her studies and the obtaining of a university degree.

7.1 Thesis Submission

Information on the deadline for submitting one’s thesis is included either in the academic-year timetable or is determined by the heads of individual departments and the directors of institutions of higher education. Usually the thesis is submitted less than two months before its defence. Defence dates are provided in the academic-year timetable and are made more specific by a department head or an institution director.

7.1.1 Text Checking and Formatting, Printing, Binding

When the thesis has been written, formatted and deemed the final version, it must be printed. Even though things can still be corrected at this stage, the
large number of pages to be printed requires the thesis to have been sufficiently checked. For this purpose it is also advisable to print out the text, because one is able to notice more in a printed version than on a computer monitor. With regard to the limited span of human attention, it is necessary to proofread the thesis several times and always focus on one selected area of interest.

These areas are particularly:

- Provision of sources for all citations and paraphrases, the correct and unified form of bibliographic citations, and the linking of text references with items on the final list of used sources.
- Orthography – spelling, punctuation, capital letters, etc. These phenomena should be checked by an expert (see further in the text).
- Stylistics – the excess production of similar words or words with the same root within one sentence or paragraph, unsuitable word order, incorrect use of words, using excessive terms, run-on and confusing sentences, etc.
- Typographical and formal aspects – proper positioning and indentation of titles and paragraphs – a line space above and below the title; the title cannot be located at the bottom of the page; transfer one-letter words to another line (using a non-breaking space), etc.

Proofreading the text after a longer period of time is also very effective and should be counted on by the student as early as when determining and implementing the thesis’s schedule.

Information on language editing can be found earlier in the text.

After making the final adjustments, the thesis is printed on white paper of appropriate weight. The type of paper must be uniform, even though photographs can be printed on coated or glossy paper. For software reasons, there is a risk that the document will be altered after it is sent to the printer’s. This risk increases in the event that the document is opened for printing on another computer. Therefore, the entire file should be converted to PDF (Portable Document Format), which eliminates this risk.

Even though both-sided printing is permitted, a bachelor’s or master’s thesis is traditionally printed on one side. However, the final choice is up to the student, who needs to consider the entire text length as well as the complications that could result from both-sided printing. The mandatory parts of a thesis, such as the front page, the declaration, and the first page of the table of contents, must
be positioned on a right-hand page, and the left-hand pages thus remain empty. Yet, they are included in the numbering which is positioned in the outer margin.

A master’s or a bachelor’s thesis is submitted bound, preventing any possible loss of pages. This condition is realised by a fixed binding. The printed sheets of paper are bound in a bindery, a copy centre or a company dealing with printing and other graphic arts. The thesis is thus inserted into a fixed cover that is usually made of canvas or leather of a conventional colour (brown, black, red, blue, green), and imprinted with gold or silver lettering. It is advisable to get advance information about the binding conditions and production length, especially during expected busy periods (December, April, June). It is usually possible to agree on the preliminary preparation of the cover. However, one needs to state the approximate number of sheets of paper (best in single digits, maximally in double-digits) and the colour of the cover including its inscription. This will significantly shorten the processing length.

The costs incurred in association with writing and submitting the thesis, e.g. with copying questionnaires, purchasing books, using library services (interlibrary loan, information research), and the printing and binding of the thesis, are borne by the student him/herself.

### 7.1.2 Number and Type of Copies, Uploading in the Electronic System

Each school determines the number and type of copies of the thesis that the student must submit. At UHK, these include two printed copies and one digital copy that is uploaded in the system. The student is fully responsible for the printed and digital versions being identical.

The printed version of the thesis is submitted in two copies for the purposes of the opponent review. After the defence, both copies are returned to the student, but it is possible and suitable to give one of the printed copies to the thesis supervisor.

The digital version of the thesis becomes archived, and for this purpose it is submitted through the interface of a relevant electronic system (at UHK, the eVŠKP interface). When submitting the printed copies, it is checked whether the data has been uploaded in the system and whether it is uncorrupted, and therefore one first uploads the file in the system and then submits the printed copies. The entire thesis, including appendices, must be in one file with a
maximum size of 20 MB. Permitted formats are PDF, DOC, DOCX, RTF and ODT. Pictures must be in the JPG, JPEG, TIF or TIFF format. Digital forms for other types of appendices (audio, video) at UHK are stipulated by a Rector’s Decree.

7.2 Review Procedure

After the thesis is submitted, the thesis supervisor and thesis opponent carry out their reviews. Both reviewers concentrate on similar phenomena, but there are some the opponent cannot evaluate and vice versa. They assess in particular:

- the definition of and adherence to the objective, the chosen methodology, and the interpretation of the findings;
- the text’s structure and consistency;
- the text’s benefit, originality and usability;
- the use of information sources, the processing of findings;
- the quality of written expression;
- the writer’s adherence to formal requirements.

The review is usually at least one page long and can be written as a fluent text or as brief comments on individual areas, or one can use scales reflecting the satisfaction of the reviewer with the assessed phenomenon; one can also combine all of the aforementioned possibilities.

The beginning of the review contains basic information about the assessed thesis, i.e. the name of the institution of higher education, the type and title of the thesis, and the name of the author of the thesis. The concluding section contains an overall assessment and possible proposals for further steps (publishing, developing the topic in a paper for a viva-voce examination, etc.). At the end, complementary questions are raised or problems and comments are defined to which the student must react during the defence. The review ends with the proposal of the grade, the date, and the signature of the reviewer. Even if one of the reviewers proposes a ‘failing’ grade, the student is entitled to (and must in the case of future repetition of this part of the state exams) defend his/her work in front of the committee.

37 Rector’s Decree 1/2013, Section 8.
38 Rector’s Decree 1/2013, Section 8.
If the student had regular consultations, the thesis supervisor will know the text. If the student worked according to the instructions of his/her supervisor, the review will be no big surprise for him/her. In addition, the thesis supervisor usually evaluates the course of working with the topic, including the attendance of consultations, whether the student was prepared, whether he/she adhered to the original schedule, whether he/she procrastinated and wrote the thesis at the last possible moment, etc.

The student must receive the reviews from the supervisor and the opponent in advance, i.e. at least five days prior to the planned defence, so that he/she can read them and prepare to answer the questions included therein and to address the issues raised by both pedagogues.

### 7.2.1 Frequent Mistakes Occurring in Theses

Mistakes that can be identified soonest and that can very quickly negatively affect the opponents’ overall view of the thesis are linguistic and formal mistakes. The frequent occurrence of typographical errors, non-adherence to orthographic rules, or the use of non-specialist and colloquial expressions, oversimplifications, or run-on and confusing sentences lower the value of the thesis. A badly arranged text; non-uniform formatting of titles, paragraphs, pages, notes, references or bibliographic citations; the absence or wrong description of inserted objects (tables, figures); the repeated provision of identical information (e.g. if the data from a table is followed by a graph which is created on the basis of identical data, or if this information is again pointed out in the text); a table of contents not corresponding to reality (e.g. wrong page numbers); many font types (various sizes or styles); wrong numbering of pages or tables and figures, etc. – these all additionally negatively affect the text.

Content-related mistakes most frequently include an insufficiently defined objective; superficial processing of sources or laxity related to searching for them; too many references to a preferred source; a compilation of information without one’s own contribution; confusion of terms and their insufficient or even absent definitions; and low coherence of chapters and sections. Content-wise the greatest risk is to produce an empirical part in which the methodology or research cohort tends to be insufficiently described, the results are inadequately supported or processed, and the conclusions are vague and inexact. Deviation from the thesis topic and assignment is a serious transgression.
7.3 Thesis Defence

The defence is the last step one takes towards the fulfilment of the obligation of writing a bachelor’s or a master’s thesis. This is a public examination in front of a committee appointed by the faculty dean (director of the institution of higher education). This part of the state examination is specific in that it does not include time for the student’s preparation, except for the preparations carried out by the student in the previous days or weeks.

7.3.1 Preparing for the Defence

The student learns about the reviews by the thesis opponent and thesis supervisor, uploaded in the electronic system, at least five days before the planned defence. This is not the only period of time to prepare for the defence, with the preparation including the composition of an accompanying speech and the formulation of arguments and answers to the questions posed in the reviews. Even when given excellent reviews, it is not advisable to underestimate one’s preparation for the defence, as this is an examination in front of a committee. One can therefore expect that additional questions will be posed, to which the student will have to react immediately and without preparation, if we do not include the knowledge obtained during his/her studies, the writing of the thesis, and the preparation for its defence.

The student’s speech about the thesis should include basic information, in particular the topic and the motive behind its choice, the defined objectives, the method of their achievement (methodology), and the most important results and their application. Interesting items or complications accompanying the processing of the topic could be mentioned as could how the course of writing and the achieved results benefited the student him/herself, especially with regard to his/her professional growth.

According to the severity of the questions in the reviews, the student will look up their answers directly in the thesis or will use selected sources, many times even such sources that he/she has not used yet and with which he/she is not familiar, to find answers or arguments to support his/her claims, to defend his/her steps, and to prove his/her knowledge.

The entire preparation for the defence should be done in legible writing (using colours or different font styles for important points or outline items). It is advantageous to try the speech aloud invoking the atmosphere of the exam. It
is also good to devote preparation time to thinking about the defence in an effort to anticipate the questions that may be posed during the defence.

With regard to the high probability of discussion related to various sections of the thesis, it is necessary for the student to prepare his/her own copy for the defence. This makes the communication between the committee and the student easier.

**Stage fright**

Stage fright is a specific type of stress reaction related to performing in public and its impact is very individual. Some people’s performance is improved due to stage fright, while the performance of others is inhibited. If a student has some experience with speaking in front of people, it is to his/her advantage because he/she has an idea of what to expect and what can happen. Frequently there are physiological manifestations, such as tremor, blushing, sweating and dry mouth, but also psychological ones, such as memory lapses, a lower level of concentration, feelings of anxiety, etc. It is ideal if the student knows the environment in which the defence will be taking place and the members of the examination committee. In any case, it is also advisable to prepare psychologically for the defence of the thesis, e.g. by imagining its course and its successful completion, by finding a calming ritual (including sweets or a good-luck charm), by thinking positively about a friendly examination committee, by realising the motives for one’s efforts, and by remembering one’s important life values (there are certainly more important moments in one’s life than a successful thesis defence).

7.3.2 The Defence

The defence begins with the introduction of the student, which is done by the chairman of the examination committee or a committee member authorised by the chairman. The student is then asked to briefly introduce his/her thesis.

The student begins to speak about the topic, objective and chosen methodology as well as the method of research implementation and its results and conclusions. The speech should be well prepared and practiced in advance, because a certain degree of nervousness can be expected that could decrease the level of performance. It is necessary for the student to have his/her speech written down, but it is unsuitable to read it in front of the committee. Glancing briefly at one’s notes is permissible. The speech should be up to five minutes long, which means one or, at most, two pages of text. It is advisable to measure the time it takes to make the speech.
A brief introduction of the reviews by the thesis supervisor and the thesis opponent follows next. The reviews are not read in their entirety, as the student and selected committee members know them, but are summarised in several sentences.

The next point on the defence agenda includes answering the questions posed in the reviews and actually defending the thesis against the comments raised. This part of the defence must be well thought through and exactly prepared in advance by the student, as the quality of the preparation is reflected in the entire course of the defence and can reverse its result. It is problematic if the student does not react to the questions posed in the reviews adequately, i.e. with a sufficient level of professionalism. All facts used by the student in the defence must be substantiated, i.e. it is possible (many times, the nature of the question requires it directly) to even refer to sources that did not make it into the thesis. In some cases it is also possible to use prepared and copied material, if sufficiently relevant, to hand out to the committee. During one's preparation for answering the questions and during the actual process of answering them, one must remember that the purpose of the questions and comments from the committee members is not to make the student unsure or to humiliate him/her, but to give an objectively critical review or to provide inspiration for the student to obtain more facts and to improve his/her methods for working with them.

Unless it arises spontaneously, the next phase has the committee members asking various questions and the student immediately answering them. In this way the terminological knowledge, the possibility of application, the motives for choosing the research strategy, and/or the reasons for using some sources, etc. can be verified.

If all questions are answered, the committee will hold a private discussion about the final assessment. The overall assessment of a bachelor's or a master's thesis is based on the quality of processing the topic, on the reviews, and on the preparation of the student for the defence, but one can also factor in the results achieved during the entire course of study. The committee agrees on a grade that is immediately announced to the student via an official declaration. Depending on the organisation, the grade can be given to the student together with the results of other parts of the state examination, or to a group of students at once.
The time allotted for the defence of a bachelor’s or a master’s thesis is set at one hour. One can expect a substantially shorter period of time for theses with good reviews, but it is not a rule.

### 7.3.3 Presenting the Thesis

The quality of the thesis is the most important, but not the only factor influencing the final assessment. The thesis defence is also a social interaction. The defence is a communicative exchange which takes place not only on a verbal level; the non-verbal, paralinguistic and conative levels are also present. Non-verbal signals – as known from social psychology – can often ‘speak louder’ than words, and therefore it is good to keep this in mind. The method of communication at the defence can to a large extent affect the overall view of the student and his/her thesis.

**Verbal component of the presentation**

The student’s oral expression should be fluent and calm; the conveyed content clear and succinct, without hazy or vague statements; and the language based on specialist terminology and standard Czech without colloquial expressions or familiarities. The student presents his/her work in front of professionals, and therefore it is advisable to adapt one’s vocabulary accordingly. To some degree, metaphors and humour can be deployed, but a possible easing of the situation is completely up to the examination committee. One should avoid excessive repetition of the same words, ambiguousness, run-on sentences, or talking briefly, which makes it seem as if one is copying the outline rather than describing the structure of the thesis in a comprehensive manner.

Even at an oral interpretation of the thesis, it should be clear when one is speaking about facts and when one is providing one’s own opinion on the issue in question.

**Non-verbal component of the defence**

The non-verbal aspect of communication is a broad and complex issue. In connection with the primacy effect (the first impression effect), the student should choose suitable clothes and be well groomed. Male students should wear a suit, while female students can choose from a broader range of clothing. A good impression is guaranteed when wearing a woman’s suit or an elegant dress; however, one can also wear a skirt or a pair of trousers combined with a blouse or shirt. The colour should also be considered; colours that are generally darker and not too bright are accepted positively or neutrally. It is unsuitable to
wear clothing that is not formal enough or is casual, provocative or extravagant. One’s accessories, shoes, hair-do and make-up should be reserved in style. At the same time, it is necessary for the student to feel good and self-assured in one’s clothes; they should not constrict him/her or distract his/her attention (e.g. pulling on a skirt that is too tight or putting a falling strap back on the shoulder distracts both the student and the pedagogues).

Eye contact is an important component of communication, and maintaining it appropriately keeps the attention of one’s listeners. As the speaker, one must establish eye contact with all communication participants continuously and not look around the room or at only one person, or above or behind the committee.

In terms of posture, a congruent, adequately self-assured and relaxed body posture that does not seem cramped is advisable. It is of benefit to be aware of the position of one’s hands that can hold an object (pencil), but in such a case one must prevent neurotic manifestations (tapping or clicking one’s pen, playing with the corners of a sheet of paper, rolling the tablecloth). Other manifestations of nervousness include playing with one’s hair, clothes or ring, restless legs, scratching, etc.

Gesticulation should complement one’s verbal expression; it should not be ostentatious, but it should not be absent either.

Facial expressions should be natural, showing one’s enthusiasm for the issue, an openness towards the comments of the committee, accessibility, and friendship.

**Paralinguistic component of the presentation**

Paralinguistic factors hint at the long-term and current state of an individual; at the same time, they add information to the spoken word about how the message should be understood. Speech that is too loud or too quiet makes a negative impression, as do a fast cadence, careless articulation, monotonous expression, and frequent mistakes. These factors hint at a speaker’s uncertainty.

A frequent problem is the use of filler, which distracts attention from the message itself (actually, like, as if, more or less, just, etc.). The speaker is usually not aware of this excessive production, and therefore it is good to focus on one’s own speech, ask an acquaintance about it or record one’s speech to identify such words.
Behaviour at the defence

A person does not communicate only verbally and non-verbally, but also with his conduct and behaviour. Therefore, a healthy level of self-assurance is desirable, based on the combination of one’s conviction of a job well done and a dose of humility. Even though the name of this part of the state examination suggests a certain type of ‘fight’ for one’s truth, it is not always desirable to assert it at any price. One should not react to possible criticism from the examination committee in an irritated or offended way; it is suitable to accept it openly and with gratitude. The following recommendation applies: discuss and argue less and appreciate the committee’s notes, suggestions and comments more. The course of the exam is highly formal and the communication behaviour of its participants should correspond accordingly.

7.3.4 Assessing the Defence

Similarly to the grading of the other parts of the state exam, a bachelor’s or a master’s thesis is also graded. For this purpose, the grading scale of the respective institution of higher education is used.39

In their reviews, the thesis supervisor and thesis opponent propose a grade that becomes the basis for the final assessment, even though it is not binding for the committee. In some cases the defence can improve the proposed grade, and in others confirm them; however, for various reasons it can happen that the student will not defend his/her thesis in front of the examination committee. The reasons are written in a protocol about the state examination, which also includes one of the following three options for the student to continue in this situation (SZŘ UHK, Section 27 (7); Dean’s Directive 2/2011, Section 19):

1. The committee will opt for the completion of the existing thesis, if there are serious but formal deficiencies.
2. Rewriting the existing thesis is an option which implies deeper interventions in the thesis not only in the formal aspect, but also content-wise. The earliest defence of a thesis on the original topic can take place after three months.
3. Writing a thesis on a new topic is chosen by the committee if the original thesis had severe deficiencies, especially with regard to its concept,

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39 According to the SZŘ UHK, the following grades are used: (1) excellent, (2) very good, (3) good, (4) failure.
methodology, etc. In this case, the earliest the new thesis can be defended is six months after the unsuccessful defence.

Depending on the institution of higher education, the student has the possibility of one to two corrective defence attempts, depending on the regulations of the respective institution of higher education.\(^{40}\) For this occasion, new reviews are written. If the student fails again, his/her studies at the institution of higher education will be terminated.

The successful defence of a bachelor’s or a master’s thesis as well as of the other parts of the state examination entitles the student to a university diploma.

**Review Questions and Tasks**

1. What does the checking process prior to the thesis submission entail?
2. What areas is the repeated reading through the thesis focused on?
3. What mistakes and deficiencies should be avoided in the text of the thesis?
4. How many printed and electronic copies of the thesis are submitted?
5. Where is it possible to have the thesis printed and bound? Find information about these services in your neighbourhood.
6. What areas are assessed in the review procedure?
7. What conclusions are drawn about the thesis by the reviewers and subsequently by the examination committee?
8. Visit the university archive and read several reviews of any type of thesis. Then focus on the reviews of theses defended at the department at which you intend to defend yours.
9. What materials should be prepared for the thesis defence?
10. What are your proven methods of coping with stress and stage fright?
11. Visit a thesis defence during the state-examination period in order to become acquainted with its course.

**Bibliography**


\(^{40}\) According to the SZŘ UHK, each part of the state examination can be repeated at most twice.
Citations


CZECH REPUBLIC. Act no. 216/2006 Coll., amending act no. 121/2000 Coll., on Copyright and Rights Related to Copyright and on Amendments to Certain Acts (the Copyright Act), as amended, and some other acts.


Appendix A

Thesis cover (according to Dean’s Decision no. 16/2013, Faculty of Education, University of Hradec Králové)

University of Hradec Králové
Faculty of Education

Master’s Thesis

2013  Jana Veselá
Appendix B

Thesis front page (according to Dean’s Decision no. 16/2013, Faculty of Education, University of Hradec Králové)

University of Hradec Králové
Faculty of Education
Department of Pedagogy and Psychology

The Quality of Life of a Starting Teacher

Master’s Thesis

Author: Jana Veselá
Study programme: N7504 – Teaching in Secondary Schools
Field of study: Teaching in Secondary Schools – Music Education
Field of study: Teaching in Secondary Schools – Fundamentals of Humanities
Thesis supervisor: Doc. PhDr. Jiří Smutný, Ph.D.

Hradec Králové 2013
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