THESIS GUIDE

Guideline for thesis processes



Bachelor's degrees

Master's degrees

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# General description of a thesis

This thesis guide contains instructions for students and supervisors. The thesis guide is HAMK's guideline for the thesis process. The purpose of the thesis guide is to unify the thesis supervision process at HAMK.

At HAMK, a thesis can be either research-focused, practice-based, a portfolio or an article thesis. Every thesis aims to solve a predefined research problem(s)/question by utilising the appropriate research methods. A research-oriented thesis utilises applied research to contribute to the working life. A practice-based thesis includes a practical development area that focuses on the workplace. A student can also begin collecting the materials for their thesis during their studies, the end result of which is a portfolio thesis. An article thesis includes the student planning and writing one to four articles. If a student has published any articles that are related to their vocational field during their studies, the student can also collate them into an article thesis.

HAMK is a strong promoter of sustainable development. Sustainable development means taking environmental, economic and social perspectives into account in a responsible manner. Observing the principles of sustainable development forms the prerequisite for the responsible development of both business and society at large. This is why each thesis must include sustainable development perspectives, and these are taken into account during the evaluation process.

## The thesis at a university of applied sciences

Writing a thesis is a learning process during which the student learns to work with a research-based, analytical and development-oriented approach. Typically, both Bachelor’s theses and Master’s theses are research and development assignments from a commissioning party (companies, public bodies or the third sector). The key principles of a thesis include the following:

* the thesis is workplace and research-oriented.
* the thesis topic arises primarily from the working life or in some cases from the students themselves, e.g. a topic related to a student’s own business
* the thesis promotes the development of the student's professional competence and improves their employment opportunities

The scope of a Bachelor's thesis is 15 credits, while the scope of a Master’s thesis is 30 credits. A Bachelor's thesis covers the actual work input, reporting, seminars, time used on supervision (individual and group guidance) as well as the maturity test or, in case of the Master’s degree programme, a press release. The purpose of the thesis is to build up both the students’ general workplace skills and their sector-specific professional competence. A Master's thesis is more extensive, and more in-depth and analytical in its approach than a Bachelor’s thesis.

After completing a Bachelor's thesis, students

* know how to find and apply national and international information in their own field, and are capable of critical assessment and analysis of information and understanding complex issues
* are able to apply appropriate research and development methods to solving workplace problems
* work with initiative and with a development-oriented work approach
* demonstrate capabilities for developing their professional field

After completing a Master's thesis, students

* know how to obtain and apply in-depth information in their areas of expertise and neighbouring fields, including deep national and international information, and are able to critically evaluate information and understand complex issues as well as create new knowledge
* are able to apply appropriate research and development methods to solving workplace problems
* master research and development methodology and know how to carry out research and development projects with the aim of developing their field
* demonstrate initiative and an inquiring and development-oriented work approach, and are capable of creative and innovative problem- solving and decision-making in the changing work environment

The thesis is often relevant to workplace development or the research and development activities of Häme University of Applied Sciences (HAMK). It may also be associated with developing the student's own enterprise. Its objective is to analyse and solve a problem on the agreed scale and schedule. A thesis may draw on HAMK’s multidisciplinary approach, and it may also be produced in cooperation between several degree programmes. As a rule, a thesis is produced individually or with a division of responsibilities that allows each student to demonstrate mastery of the thesis process as a whole and their individual competence.

Key parts of each thesis include clearly describing the purpose and goals of the thesis and applying an experiment-based approach and a development-oriented perspective.

A thesis can be either research-focused, practice-based, a portfolio or an article thesis:

* The starting point of a research-focused thesis is always a clearly formulated workplace-oriented research problem or question, to which an answer is sought using appropriate data and common research methodology. A research-focused thesis typically looks at empirical data to find an answer to a research problem by e.g. carrying out an experiment or conducting a survey or interview.
* A practice-based thesis is a workplace development assignment that aims to develop, guide, organise and improve the efficiency of practical activities. This type of work develops, implements and evaluates new products, services, operating methods or work practices. The work necessitates the forming of a research problem/question that is related to the matter as well as the utilisation of an appropriate research method.
* In a portfolio thesis, the student methodically collects projects and other assignments completed in different stages of their studies into an entity. The work necessitates the forming of a research problem/question that is related to the matter as well as the utilisation of an appropriate research method.
* An article thesis contains one or several articles that are ready for publishing and that present the results of a research or development assignment. In addition to the articles, the thesis includes a summary of the contents of the articles.

Regardless of the implementation method used, all theses should comprise a report with an introduction, sections describing the knowledge base, implementation and results of the thesis, as well as conclusions and reflection. Here, the knowledge base refers to the theoretical background and previous research information related to the matter. Different sections of the thesis are put together in different ways, depending on the chosen model.

An acceptable thesis is assessed on a scale of 1 to 5. Different assessment criteria are emphasised in case of different thesis implementation methods. For a description of the assessment criteria for Bachelor's and Master’s theses, see Chapter 4.

A thesis agreement (Appendix 1) is always concluded before starting the thesis process and signed by a representative of the commissioning party, a degree programme representative, and the student.

During the thesis process, a large number of documents are produced for which the HAMK records management plan (arkistonmuodostussuunnitelma or AMS, in short) contains information about retention such as the retention period, storage location and party responsible for storage. The student must check their obligations regarding the retention ofrecords in the checklist (Appendix 9).

## Ethical principles of the thesis

At HAMK, all study programmes aim to promote the responsible conduct of research and the ethical principles of research involving humans as well as to prevent violations of good scientific practice.

HAMK is committed to observing the guideline [Responsible conduct of research and procedures for handling allegations of misconduct in Finland](https://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf) issued by the Finnish Advisory Board on Research Integrity. (2012) HAMK is also committed to the Board’s [Ethical principles of research with human participants and ethical review in human sciences in Finland](https://www.tenk.fi/sites/tenk.fi/files/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2019.pdf). (Finnish National Board on Research Integrity, 2019) HAMK’s guideline is based on instructions issued by the Finnish Advisory Board on Research Integrity.

Violations of the responsible conduct of research include carelessness or fraud. Carelessness includes gross negligence and carelessness during the research process, inadequate citation of prior research results, and misleading reporting of results or methods. Fraud includes, among other things, fabrication or falsification of observations or results, plagiarism, misappropriation, or modifying and presenting original observations deliberately so that the results based on those observations are distorted. Omission of results or information that are essential for the conclusions is also fraud.

Plagiarism, or unacknowledged borrowing, refers to representing another person’s material as one’s own. This includes research plans, manuscripts, articles, other texts or parts of them, visual material, translations etc. Plagiarism includes direct copying as well as adapted copying. HAMK uses the online service Urkund for identifying plagiarism. It is used to check if the theses contain sections that may have been copied without appropriate citations. Misappropriation refers to the unlawful presentation or use of another person’s results, ideas, plans, observations etc. as one’s own research.

If there is cause to suspect that the author of a thesis has violated the responsible conduct of research, an allegation is made to the Rector in writing. Based on a recommendation by the Vice Rector, the Rector will make a decision on whether or not to initiate a preliminary inquiry.

### Research permits and advance ethical review

The responsible conduct of research includes taking care of necessary research permits, consent of the research subjects and a possible advance ethical review. Before starting the collection of the research material, the student and the supervisor must consider whether the thesis will require research permits and/or an ethical review in good time, i.e. in the planning phase of the thesis. If the subject of research is an organisation, an organisation's activities or its representatives (e.g. staff or students), a research permit must be requested from the organisation in question (Appendix 1. Thesis agreement). Permit practices and the prerequisites for granting a permit vary by organisation. According to HAMK’s research permit guidelines, a research permit is required for all research, development projects and theses that are targeted at the staff or students at HAMK (e.g. surveys). Instructions for applying for a research permit can be found on the [Research permit page](https://www.hamk.fi/research/research-permit/?lang=en).

If the thesis is planned to be implemented in a manner that requires an advance ethical review, the student and the thesis supervisor will jointly apply for a review from the ethical committee. If carrying out the thesis process according to the thesis plan requires an advance ethical review, a statement from the ethics committee must be applied for before applying for the research permit. Applying for a statement is usually only required for Master's theses. HAMK is a member of the Ethics Committee of Human Sciences of the Helsinki Metropolitan Area Universities of Applied Sciences that carries out advance ethical reviews of HAMK's theses. In addition, workplaces such as hospital districts/university hospitals have their own ethical committees, from which an advance ethical review must be applied for if the thesis is planned to be implemented in the operating area of the hospital districts/university hospitals in question. For more information, see the TENK guideline [Ethical principles of research with human participants and ethical review in human sciences in Finland](https://www.tenk.fi/sites/tenk.fi/files/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2019.pdf) (2019) and [the website of the Ethics Committee of Human Sciences of the Helsinki Metropolitan Area Universities of Applied Sciences (in Finnish)](https://www.metropolia.fi/fi/tutkimus-kehitys-ja-innovaatiot/tutkimusetiikka).

### Consent

Informed consent to participate in research is a key ethical principle in research involving humans. It is not the same as the consent used as a legal basis for processing personal data. Informed consent to participate in the study is requested from the subject before starting data collection. The researcher documents the consent to participate that the subject gives orally, in writing, electronically or otherwise. In relation to research in which, for one reason or another, the subject cannot be asked for informed consent to participate in the study, a statement from the Ethics Committee must, as a rule, be requested. For more information on the rights of the research subject and informed consent, see the TENK guidelines [the Ethical principles of research with human participants and ethical review in human sciences in Finland](https://www.tenk.fi/sites/tenk.fi/files/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2019.pdf).

For more information on the ethical aspects of writing a thesis, see the [ethical recommendations of the theses at Universities of Applied Sciences](http://www.arene.fi/julkaisut/raportit/opinnaytetoiden-eettiset-suositukset/) (Rectors' Conference of Finnish Universities of Applied Sciences (Arene), 2020) by the Rectors' Conference of Finnish Universities of Applied Sciences (Arene).

## Publicity and intellectual property rights (IPR) of a thesis

A thesis is a part of a higher education degree that must be available for open assessment. Accepted theses immediately become public. This aspect cannot be changed by any agreement. Publicity guarantees the objective and fair assessment of theses.

The entire thesis report is public, and it may not contain any sections that have been removed due to reasons of confidentiality. Confidential materials are also not to be marked as appendices. If a thesis contains any confidential content, including a company’s business secrets or information on its product development, the confidential information should be contained in background material which is completely separate from the actual thesis and which remains in the exclusive use of the commissioning organisation. The thesis agreement contains separate provisions on the background material and keeping in on file (Appendix 1). A duty of non-disclosure applies to the thesis supervisor where confidential information is concerned.

The student retains the copyright to their own work. This includes both rights and obligations. Statutory issues related to theses include different types of rights to the results of the student's work (copyrights, patent and design rights) and liability in case of accidents and damages. These aspects will be subject to a separate agreement between the student and the commissioning party as part of the thesis agreement. The thesis agreement describes provisions on copyrights and patent and design rights that must be taken into account under the law. If IPR rights that need to be protected arise in connection with the thesis process, the author must personally apply for sole rights, should they wish to do so.

## Data management and processing of personal data in a thesis

The processing and storage of data collected for a thesis is called data management. A data management plan refers to a description of the processing and storage of material/data collected or used for the thesis during and after the thesis process that is prepared as a part of the thesis writing process. The data management plan ensures that the collection, processing, storage and destruction of data has been planned well and implemented in a sensible manner. The data management plan is saved as an attachment to the completed thesis. If something changes in the collection or processing of data during the thesis process, the data management plan must be updated.

The data management plan should include the consideration and descriptions of the following:

### General description of the data

* What kind of data / material (e.g. interview, survey, observation material) is collected or used in your thesis?

Briefly describe what kind of data you are collecting. Explain how you plan to collect the data and the type of data (e.g. survey, interview, photo, video, observation, image/sound, result of measurements, modelling, physical sample).

If you re-use previously collected data, follow the terms of use of the data and mention its origin, authors and sources in accordance with HAMK's referencing guide (Appendix 5) and the legislation.

### Responsible conduct of research

Responsible conduct of research applies to all theses. Responsible conduct includes ensuring that you have the necessary research permits and consent, using an appropriate research method, reliable implementation of data collection and processing, and referencing sources in an appropriate manner.

If you collect and process data involving people, follow the principles of research ethics and the legislation on the processing of personal data and data protection. Make sure that you have the necessary research permits and consent (see guide Chapter 1.2).

### Storing data during the thesis process

* How is the data stored? How do you ensure data security and data protection during the thesis process? Who has access to process the data?
* Will you collect/process personal data or sensitive (special) personal data as a part of the thesis? How is sensitive data stored? Is it acceptable to store the materials in a cloud service?

The data management plan should describe how the research data of your thesis will be stored during the thesis process (for example, the student's personal P drive, OneDrive, external hard drive, cloud service, etc.) Note that confidential data may not be stored in cloud services provided by, for example, Dropbox, Google, or Microsoft. Confidential thesis data can be stored on Wihi (thesis system) in its confidential section during the thesis process.

Make sure the data has been saved and backed up. Backups can be saved on different storage devices under a different name by e.g. adding sequential numbering to the file name. This way, you can easily return to the previous version of the file if necessary.

During the thesis process, it is important to ensure that the data is kept safe. Protect confidential and sensitive information and ensure data security and data protection. Remember that it is prohibited to store personal data or other confidential or secret information in cloud services. Read the HAMK data classification instructions and agree on the processing of the material with the commissioning party.

<https://digipedaohjeet.hamk.fi/wp-content/uploads/2020/02/Data-classification.pdf>

Determine who owns the data and results of your thesis. If other parties are involved in the thesis project, make sure that the ownership and use rights of the data have been agreed upon (commissioning party, theses carried out as pairs or group work).

If you are using third-party materials, such as images or brochures, make sure you have the right to use them. If you use images you have taken yourself, check with the commissioning party that their use is permitted in the thesis (for example, photographs taken in the commissioning organisation). In regard to social media images, make sure you know who has the copyright to the images.

### Processing of data after completing the thesis

* What will be done with the data collected/used in the thesis after the thesis is completed?
* Is it possible to use the data later? Should the data be destroyed?

Talk to your supervisor and the commissioning party about whether the data you collect could also be useful when reused. Is there a reason that the data could not be used again, such as the protection of privacy or personal data, company secrets or the commercial exploitation of the results and the protection of related rights? The further use of material containing personal data must be recorded in the data protection notice before the data is collected. Do the terms and conditions of the project funding or agreements restrict the further use of the data?

If the research data that has been collected for the thesis is to be handed to HAMK for further use in teaching or research, a written agreement must be drafted on the matter, and a template of this agreement has been appended to this thesis guide (Appendix 2). The parties of the agreement are the author of the thesis, the possible commissioning party and HAMK. The persons who participate in the research must also consent to the further use of the data. If for example a survey or thematic interviews are conducted, the interviewees must grant their permission for the further use of the research materials before the data is collected.

If a thesis is connected to a HAMK project, the disclosure of the research materials (data) to HAMK should be done using the appropriate agreement template (Appendix 3). The parties of the agreement are the student and HAMK.

If the data is not stored for further use, destroy the data following the instructions of HAMK or the commissioning party. The student must keep the data for 1 year from the date of approval of the thesis so that the results of the thesis can be verified if necessary. After this, material containing personal data is only stored if there is a reason for this and the research subjects have been informed about it. Material containing personal data must be destroyed if the thesis process is interrupted for long enough that the processing time described in the data protection notice expires.

## Processing of personal data in a thesis

If a thesis includes processing personal data, the processing life cycle must be planned in advance. The EU's Data Protection Regulation (General Data Protection (EU) 2016/679, 2016) and the Finnish Data Protection Act (Data Protection Act 5.12.2018/1050, 2018) require great care in the processing of personal data.

* theses and related materials must include as little personal data as possible
* research participants will be informed about the processing of personal data
* personal data must be removed or converted into an unrecognisable form by utilising e.g. codes in the materials that help prevent identification (anonymisation or pseudonymisation)
* secure methods and tools must be selected for the collection, recording, storage and destruction of personal data.

## Accessibility of the thesis

The thesis must be in the accessible document format (Appendix 6) which was introduced in autumn 2020. The change also applies to theses that have already been started. The thesis is available in a digital format either in the Theseus database or in HAMK's internal thesis archive. For anyone who is interested in the thesis to be able to utilise the content, it must be ensured that the content, structure and technical characteristics of the document are accessible. An accessible document communicates its contents clearly and comprehensibly. The accessibility requirements for digital documents are laid down in the Web Accessibility Directive 2016/2102 which is implemented in Finland by the Act on the Provision of Digital Services (Act on the Provision of Digital Services 306/2019, 2019). Accessibility requirements apply to theses, too.

Ensuring accessibility increases the comprehensibility of the document, its adaptability for various devices and interfaces, and technical functionality when using assistive technology (e.g. screen reader). Once the document has been created to be accessible at the processing stage, it is saved in the accessible PDF/A format that also allows it to be archived. For detailed instructions on saving to PDF/A format, see Chapter 3.3 Finishing touches.

The technical accessibility of the content of the document must be ensured in a way that

1. The content is written in readable fonts, the order of reading is defined, and styles from the word processor are used (paragraphs, headings, tables, lists, etc.),
2. images are assigned alternative text,
3. sufficient contrast is defined between the text and the background or graphic elements;
4. link names are descriptive,
5. information is not shared using only colour symbols, for example in tables.

You can see more detailed advice on the accessibility of the thesis on Theseus: <https://submissions.theseus.fi/en/accessibility-guidelines.htm>

# Implementation methods and structure of a thesis

The implementation methods and structure of a thesis produced at a university of applied sciences may vary depending on the professional field and the assignment. The following section describes four different thesis implementation methods and the structures used in their reports. The thesis supervisor may also end up recommending other structural models.

## A research-oriented thesis

A research-oriented thesis relies on basic structures (see the guideline for structures) that are commonly used in quantitative and qualitative scientific research. In quantitative studies (experiments, surveys) the concepts of a ‘research problem’ and ‘research hypothesis’ are generally used, whereas in qualitative studies (surveys, interviews), the concept ‘research question’ is more common.

A research-oriented thesis

* is usually based on development needs observed in the workplace
* includes defining and preparing research problems/questions for the work and selecting scientific research methods
* is realised as a study that includes the perspective of practical applications (applied research)
* usually contains specific goals and research problems, research hypotheses or research questions that the thesis aims to answer
* is based on research and research theory previously published in the professional field and on the research theme
* contains collated knowledge and observation material, in other words data that helps solve, understand and explain the goals and research problems/questions
* analyses the materials used, including any possible statistical analyses
* can be carried out as an independent study or as part of a larger research or development project, for example in HAMK’s Research Units
* emphasises methodical work and mastering an experiment-based work approach

**Guideline for the structure of an experiment-based thesis**

#### 1. Introduction

The student justifies the topic selection and its relevance. The key idea of the thesis is presented, and its workplace links are described. The author explains the background and starting points for approaching the topic and key concepts used in the thesis. At the end of the introduction, the student describes the goal of the thesis and presents the research problem.

#### 2. Knowledge base of the research

The student describes the thesis in terms of the knowledge base and background information. A description is given of how the student’s research is linked to the previously published knowledge base and how the knowledge base will be utilised in the following section of the thesis.

#### 3. Materials and methods

The student describes the practices, methods and techniques by which they intend to answer the problems or questions. The methods used for collecting and analysing the data are described, and a practical implementation plan is presented.

#### 4. Presentation of results

The presentation of the results is the most essential part of the report. The results lead to the outcomes of the present study, i.e. answers to the research problems. The results may be structured in many ways, for example by research problem. The method of presentation depends on the nature of the report and the form of the thesis. The results are grouped logically. It is important to illustrate the results when presenting them. The discussion must draw on the data and be logical and clear.

#### 5. Examination of the results, reflection and conclusions

The examination sums up the key results, compares them to the results of prior studies, and critically analyses the factors that influenced the results.

It also contains a self-assessment related to reliability and problem-solving and discusses the significance of the thesis process for the student’s professional development. The conclusions made on the results show how the thesis has changed or increased knowledge in the area to be studied or developed and how its outcomes may be used in practice.

#### Appendices (Appendix 5)

#### Appendices

## A practice-based thesis

* includes defining and creating research problems/questions for the work and selecting the appropriate research methods
* is based on the needs of the workplace and helps develop practical activities (e.g. by streamlining, providing instructions for, or increasing the efficiency of something)
* emphasises an experiment-based and development-oriented work approach, which is the basis of the choices and decisions made during the thesis process

The thesis includes both a theoretical and practical section.

* The theoretical section describes the research problems/questions and knowledge base as well as the results of the practical section and the evaluation of these results. The results are evaluated in relation to the knowledge base of the field.
* The practical section can focus on e.g. a guide, electronic material, planning an exhibition or event, a development plan or the implementation process for some other concrete product/output or project.

**Guideline for the structure of a practice-based thesis**

#### 1. Introduction

The introduction describes the author’s interest in and starting points for approaching the topic, and the topic’s connections with the workplace. The introduction presents the background of a product or a process, justifies the need for said product or process, and presents the research problem or question.

#### 2. Knowledge base of a development assignment

The knowledge base describes existing knowledge on the topic and similar products, outputs or processes that have been created before. The thesis has an evidence-based foundation that draws on studies, reviews and recommendations.

#### 3. Purpose and objectives of the development work

The report expounds on what the thesis aims for and how and where it will be utilised. It describes the links between the knowledge base and the goal. It also justifies the selection process for the methods used in the thesis.

#### 4. Planning and realisation of a product, output or a project

The planning and realisation are described systematically. In addition to a written description, the thesis may, for example, include videos.

#### 5. Conclusions and reflection

The reflection includes an evaluation, conclusions, further plans and a deployment plan. The author of a practice-based thesis reflects upon and evaluates both the outcomes and the thesis process. The reflection also describes feedback received from the commissioning party, target group or experts on the completed product or process.

#### Appendices (Appendix 5)

#### Appendices

## A portfolio thesis

* includes defining and creating research problems/questions for the work and selecting the appropriate research methods
* the student can begin writing their portfolio thesis immediately after they have gained the information and skills necessary for creating the work
* enables the student to process and examine a selected theme from different perspectives in a number of projects
* consists of deliverables produced in different stages of the author’s studies that form a cohesive entity (the deliverables do not need to be in written form, but it must be possible to document them by using e.g. video)
* includes a written report that collates the different parts of the thesis
* emphasises an experiment-based and development-oriented work approach, interest in the selected theme, goal-oriented and methodical work, understanding of complex entities as well as an ability to keep up enthusiasm for a long-term project.

**Guideline for the structure of a portfolio thesis**

#### 1. Introduction

The introduction describes the background of the selected theme and justifies the need for it. It may also describe the author’s interest in and starting points related to the selected theme. The introduction presents the research problems/questions.

#### 2. Knowledge base of the selected theme

The student presents the knowledge base that links the selected theme to the products, exploring pre-existing knowledge of the theme. In this phase, the student reads and draws on studies, reviews and recommendations.

#### 3. Presentation of portfolio products

The student describes the products, the selection, planning and implementation processes related to each product, as well the utilisation of the products. They describe the research and development methods used. The student also describes the links of the products with the knowledge base and the workplace.

#### 4. Conclusions on the products and reflection

In the conclusions and reflection section, the author reflects upon and critically assesses the portfolio thesis as a whole, the learning curve it represents and any further plans. In the reflection section, the student also describes the feedback from the commissioning party and critically examines their learning.

#### Appendices (Appendix 5)

#### Appendices

## An article thesis

A thesis can be implemented in an article format, especially when the topic is particularly relevant or interesting to the general public/professional field and the results of the thesis have novelty value. An article thesis emphasises writing skills and familiarity with publication process. In addition to the articles, an article thesis should include an introduction, conclusions and a reflection section. The scope of this section depends on the length and the requirement level of the original publication(s).

An article thesis:

* is based on a research-oriented approach
* is usually based on development needs observed in the workplace
* allows the student to write their thesis in the form of a publication, thus permitting it to deviate from the aforementioned guidelines on how a thesis should be structured
* contains one or more articles that are ready to be published
* the results of all articles must be previously unpublished
* if the thesis contains several different articles, they must form a cohesive entity
* the publication channels are selected together with the supervisor according to the objectives and character of the thesis
* It is important for the thesis supervisor to be familiar with different publication channels and their practices.
* the thesis supervisor can ask for advice on selecting the publication channel at vie@hamk.fi
* it is possible to write the article together with the supervising teacher or other expert
* make an agreement on the authorship of the article (see [TENK's guide on Agreeing on authorship](https://www.tenk.fi/sites/tenk.fi/files/TENK_suositus_tekijyys_EN.pdf))
* the acceptable publication languages of the article are Finnish, Swedish and English
* the article and the thesis report do not need to be written in the same language
* an article written for a Master's thesis must demonstrate the student's extensive knowledge of the topic and strong know-how on the topic of the article.

Publicity and archiving of an article thesis at HAMK:

* All theses are public.
* If the article(s) have not yet been published, the thesis must be archived in HAMK's internal thesis archive. The thesis should NOT be uploaded to Theseus, as this means that its first publication is considered to have been in Theseus and journals may no longer publish the article(s).
* If the article has already been published, permission for re-publishing it must be requested from the publisher and, at the same time, it must be agreed upon which version of the article may be published (publisher version, final draft etc.) This is particularly important if the thesis is to be published in Theseus since the thesis is openly accessible to anyone there. It is also important to request permits and clarify which version of the article can be published in professional journals, as e.g. images in the article may be copyrighted.

**Guideline for the structure of an article thesis**

#### 1. Introduction and summary

The introduction explains how the articles are interconnected and what type of an entity they add up to, defines the goals, scientific frame of reference and methodology of the entity, and provides an estimate of the significance and usability of the publication results at the time of their publication. If only one article is submitted for the thesis, the introduction must describe the research framework and methods as well as an assessment of the significance and usability of the results of the publications at the time of publication.

The detailed structure will be subject to agreement with the supervisor.

#### 2. Articles

The guidelines issued by the publication channel should be followed in the writing of the article(s).

#### Appendices (Appendix 5)

#### Appendices

# Thesis process

The thesis process includes such parties as:

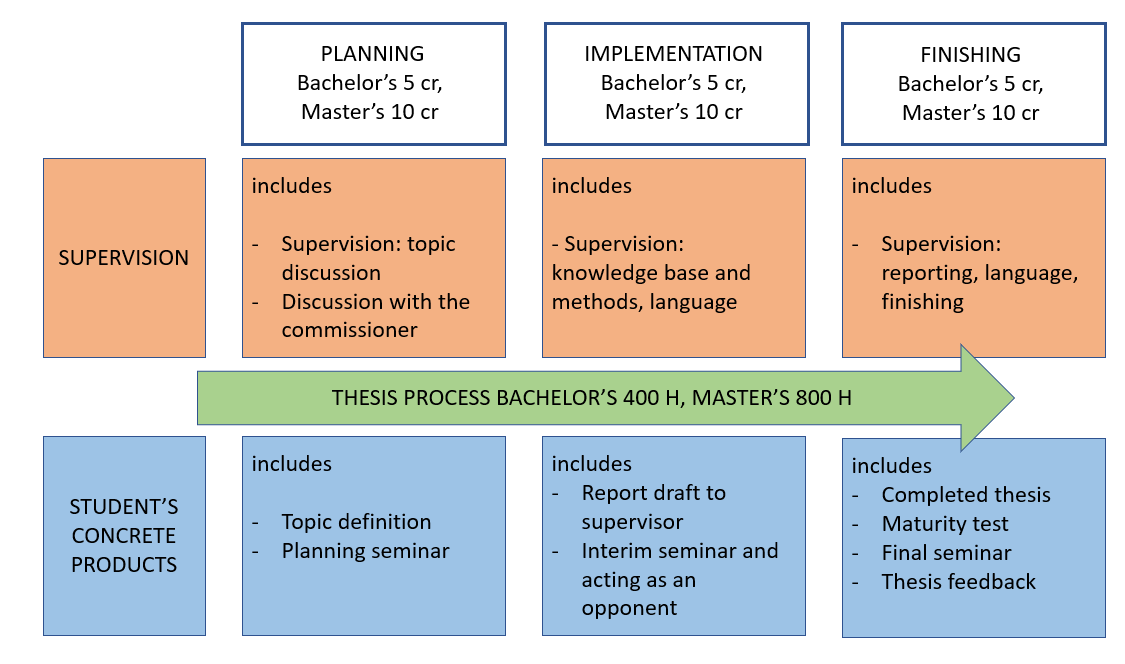
The thesis supervisor is a representative of HAMK staff assigned by the Head of Degree Programme who guides the student in the creation of the thesis, supervises the student's progress and evaluates the finished thesis. Usually, there are two thesis supervisors: one that supervises the actual contents and another that reads through the text of the thesis. The names of the supervisors are included in the abstract of the thesis.

The communications teacher guides the student with the thesis report and checks the linguistic form of the maturity test. **An English language teacher** checks the language of the English abstract. In degree programmes carried out in a foreign language, an English language teacher acts as the thesis supervisor in relation to the linguistic matters of the thesis report. No linguistic evaluation is conducted for Master’s theses. The press release is checked by a communications teacher.

The commissioning party is the general term that is used for the party that commissioned the thesis. For example, the commissioning party may be a company, a public body or a third sector actor.

The following section describes the thesis process. In Image1. the top half of shows the actions related to supervision and guidance, while the bottom half lists the student's concrete products. Image 1. is explained in more detail in sub-chapters 3.1 to 3.3.

Image1 The Bachelor’s and Master’s thesis process



During the thesis process, the creation of the theoretical section, the selection of methods and the basics of expert communication can be implemented under group guidance or as part of a module. The main emphasis in the supervision process is on small groups; individual guidance covers only the special questions and challenges of each thesis.

## Planning

Thesis supervision begins with a discussion on the topic and negotiations with the commissioning party and the student. The student prepares a topic proposal on Wihi (thesis guidance system). The thesis coordinator approves the topic proposal (or returns it to the student for edits) and appoints a supervisor for the thesis. The supervisor continues working on the topic proposal with the student. A thesis agreement is made with the commissioning party (Appendix 1) and the version signed by all parties is saved on Wihi. Following the supervisor’s instructions, the student formulates a thesis plan that is consistent with the selected implementation method (see Chapter 2). The thesis is written based on HAMK’s official document template for theses (Appendix 4).

In the planning phase, the student becomes acquainted with data collection methods and works on the knowledge base of the thesis. Note that if the subject of research is an organisation, an organisation's activities or its representatives (e.g. staff or students), a research permit must be requested from the organisation in question. Permit practices and the prerequisites for granting a permit vary by organisation. According to HAMK’s research permit guidelines, a research permit is required for all research, development projects and theses that are targeted at the staff or students at HAMK (e.g. surveys). Issues related to research permits are described in more detail in Chapter 1.2.

During the planning stage, the student completes an Open Badge of a thesis expert. It is possible to complete the Open Badge even before starting the thesis process. After completing the Open Badge, the student is familiar with good scientific practice at the level required by HAMK's thesis guidelines, which include data protection, perspectives on research ethics, research permit practices, the use of sources and the management of research data. The student can take an auto-check exam to complete the Open Badge in Learn with instructions/links to support materials. The exam can be found in Learn under “Thesis Open Badge” <https://learn.hamk.fi/course/view.php?id=7618>,

The student saves the information about the approved badge on Wihi (<https://wihi.hamk.fi>). Research material for the thesis work may not be collected before the badge has been successfully completed.

A communications teacher participates in the supervision of the Bachelor's thesis. A student writing a Master's thesis can also receive guidance on linguistic points if necessary. In addition, the library's information specialists guide and assist in finding and using information sources at all stages of the thesis. Ask the library for more information.

The APA citation standard should be consistently complied with at HAMK. Instructions are available for creating citations, the correct citation technique and naming figures and tables (Appendix 5).

A planning seminar is organised when the student has written down some of the knowledge base and selected a framework for the thesis, drawn up a provisional table of contents, and planned the research method(s) that they will use. However, the goal is that the thesis would not have progressed so far that no changes could be made in it following the planning seminar discussions. For example, a survey drawn up by the student that has not yet been sent out is introduced at the planning seminar. A student can only register for the planning seminar by permission of the supervisor.

The approved thesis plan is submitted on Wihi. Once the supervisor has approved both the thesis plan and the planning phase on Wihi and recorded the RDI points for the entire thesis project, the student will receive 5 credits (Bachelor’s degree) or 10 credits (Master's degree) on the credit record database.

## Implementation

The implementation phase focuses on the core contents of the thesis, or data collection and analysis. The duration of the implementation phase may vary greatly and it is influenced by the implementation method, the commissioning party and the selected methodology. The student hones the thesis in group sessions and on the basis of feedback received from the supervisor.

The interim seminar takes place during the implementation phase of the thesis. At the time of the interim seminar, the analysis of and reporting process for the thesis materials should be well underway, and the main contents will have been written. The practical arrangements of the interim seminar depend on the degree programme (online/live, group/individual supervision, public/restricted access). Another student, who is roughly at the same stage, acts as an opponent for the thesis. The opponent comments on both the text of the report and a presentation on it given by the author. The opponent must submit a written report. Students pursuing a Bachelor’s degree must participate in a number of other students’ final seminars, the number of which is determined by the degree programme.

At the end of the implementation phase, the supervisor approves the stage on Wihi, and the student receives 5 credits (Bachelor’s degree) or 10 credits (Master's degree) on the credit record database.

## Finishing touches

In the final phase of the thesis process, the student focuses on writing the report and finalising the research results. The student writes their conclusions, the reflection section, and an abstract in Finnish and in English. Feedback from the supervisor, the interim seminar opponent and the commissioning party should be taken into account. The thesis is subjected to a plagiarism detection process on Wihi (Urkund). The supervisor checks the Urkund report and asks the student to make the necessary corrections to the thesis. At this stage at the latest, an English teacher also comments on the abstract. The abstract of Master's theses is not subject to a linguistic review. After the entire thesis is completed, the student submits the thesis to Wihi for evaluation. The student requests permission from the supervisor to present the thesis at the final seminar and to publish the thesis. The practical arrangements of the final seminar vary according to the degree programme.

Final seminars are organised on advertised dates. At the final seminar, the student presents their thesis. The final seminar is a public event, to which such persons as a representative of the commissioning party may be invited. The seminar can also be organised in a location requested by the customer. The seminars may be recorded on video and shown to anyone who is interested. In the presentation, the results and conclusions of the thesis should be emphasised. The final seminar presentation is assessed (see assessment criteria). The presentation should highlight the practical aspects and workplace links of the thesis. The student also provides a short assessment of their learning process at the final seminar.

The Bachelor's thesis process also includes a compulsory maturity test (Appendix 6). According to the article 8 of the Universities of Applied Sciences Act, (Universities of Applied Sciences Decree 2014/1129., 2014) in order to obtain a Bachelor's degree the student shall sit a maturity test on the field of their thesis to demonstrate familiarity with the field and skills in the Finnish or Swedish language. The maturity test shall be at the discretion of the university of applied sciences when language skills referred to in the Act’s (Universities of Applied Sciences Decree 2014/1129., 2014) section 7(1) are not required of the student. If the student has received their primary and secondary education in Finnish or Swedish, the maturity test will be taken in their language of education. If the student has received their primary and secondary education in a language other than Finnish or Swedish, they shall take the maturity test in English. For more information on the language of the thesis and the maturity test, see HAMK’S current Degree Regulations. <https://www.hamk.fi/wp-content/uploads/2020/09/Degree_regulations_2020.pdf>

Bachelor’s students take the maturity test under supervision or in the Exam aquarium. The student may register for the maturity test when their thesis is in its final stages and the thesis supervisor has permitted it. In the maturity test, the student writes an essay based on a title given by the supervisor. The essay is marked by the thesis supervisor and, for linguistic points, by a communications teacher. A Swedish language teacher checks maturity tests written in Swedish. The grades pass or fail are awarded for the maturity test. After approving the maturity test, the supervisor records the maturity test in Wihi as completed.

In case of Master’s students, the maturity test is replaced by a press release. Bachelor’s degree students prepare a press release if requested by the supervisor. Appendix 7 contains instructions for writing a press release. The student submits the press release to the thesis supervisor and communications teacher, who then checks and forwards it. The press releases may be used in external and internal communications.

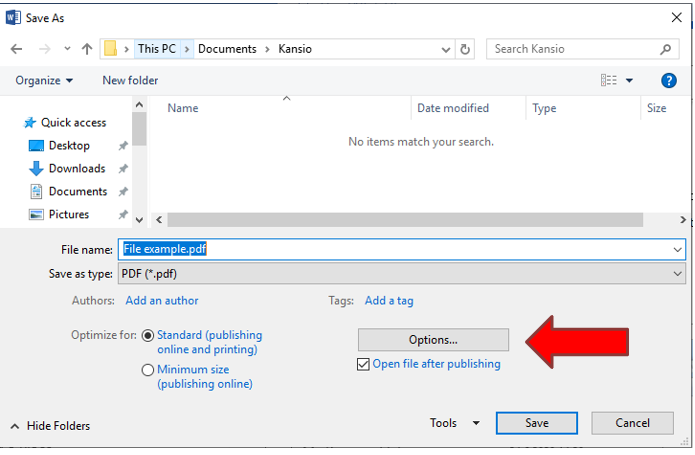
Once the commissioning party has given feedback on the thesis on Wihi, the supervisor and the other inspector will evaluate the thesis and record the numerical assessment and a verbal statement in Wihi.

HAMK began archiving its theses digitally on 1 September 2016. After receiving the permission to publish their thesis, the student must save their work in either Theseus (recommended) or HAMK internal thesis archive. All works are saved in the pdf/a format.

Export a Word document in pdf/a format as follows (see Image2):

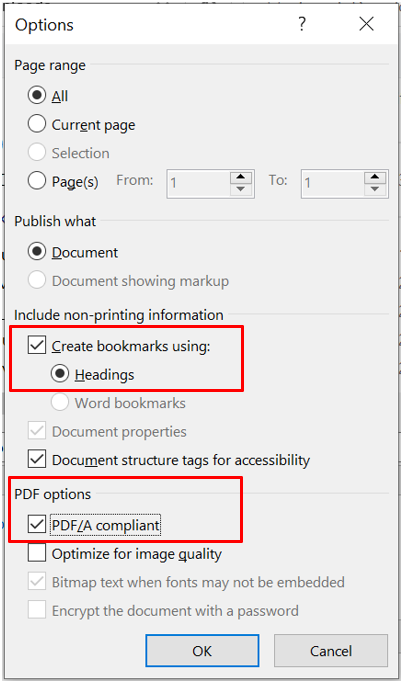
select FILE → EXPORT → Create PDF or XPS document → Create PDF/XPS. A new window opens up. Select Options.

Image2 Export in PDF/A format, screenshot 1.



Another new window opens up. Select to create bookmarks using headers and PDF/A compatible on PDF settings. (Image3). Do not make any other changes. Finish by clicking OK.

Image3 Create bookmarks from headers and export in PDF/A format, screenshot 2.



Theses are primarily published in Theseus, the common thesis database of universities off applied sciences. The theses published in Theseus are publicly available on the internet. For more detailed instructions on how to save your thesis, see <http://submissions.theseus.fi/>.

If the thesis is not to be published in Theseus, the student must submit it through Funet's FileSender service (<https://filesender.funet.fi/>) to the receiver [opinnaytetyo.arkisto@hamk.fi](file:///C:/Users/klindfors/Documents/opinnaytetyo.arkisto@hamk.fi). The thesis is then transferred to HAMK internal thesis archive, where it can only be read by users in the HAMK network.

The library notifies the student and the supervisor specified in the thesis after the thesis has been archived. Students add the link they receive from the library to Wihi. The supervisor checks the link and the saved thesis on Theseus or HAMK internal archive and approves it.

The student can then see the assessment and statement on Wihi. At the same time, the grade will be transferred to the credit record database, and the assessments of previous stages will change from “approved” to numerical evaluations based on the thesis grade.

**Thesis process check list**

The times (credits) specified for the different phases of the process are only indicative in nature.

#### Planning, 5 credits (Master’s thesis 10 credits)

* familiarise yourself with HAMK’s Thesis guide
* complete an Open Badge of a thesis expert
* write a topic proposal and prepare a thesis agreement
* select your implementation method (practice-based, portfolio etc.) and write a thesis plan using the Document template for the thesis
* familiarise yourself with the instructions concerning research permissions issued by HAMK and the commissioning party and fill in a research permission application

#### Implementation, 5 credits (Master’s thesis 10 credits)

* learn about the source materials you found through systematic data retrieval and start writing the theory section of the thesis
* keep working on the thesis following the implementation method you selected
* take part in supervision and guidance sessions
* present your thesis and act as an opponent to another student at the interim seminar

#### Final touches, 5 credits (Master’s thesis 10 credits)

* finalise your thesis on the basis of feedback
* ask for feedback from the commissioning party
* submit an abstract in English and a Finnish summary to the English teacher
* submit the completed work to the plagiarism inspection system (Urkund)
* make your final adjustments and submit the finished work to your supervisor
* take the maturity test (Bachelor’s degree) or write your press release (Master’s degree)
* give your feedback on the thesis process
* present your thesis at the final seminar
* after you have been granted the permission to publish your thesis from your supervisor, save your thesis either in Theseus or the internal archive
* you will receive a grade and a statement on your thesis.

# Thesis assessment

## General principles of assessment

Bachelor's and Master’s theses are assessed using the key assessment criteria described in Chapters 4.2–4.5. A Master's thesis is more extensive, and its approach is more in-depth and analytical than that of a Bachelor’s thesis, which is also taken into account in the assessment. Acceptable theses are assessed on a scale of 1 to 5. The evaluation criteria are different for different implementations of the thesis.

A student who is dissatisfied with the assessment of their thesis may address a request for rectification to the Examination Board; for more detailed instructions, see the Degree Regulations <https://www.hamk.fi/wp-content/uploads/2020/09/Degree_regulations_2020.pdf>

**Thesis grading scale**

All evaluation criteria follow a uniform grading scale. The implementation of the evaluation criteria in the thesis is assessed on a scale from 1 to 5:

* Excellent 5: achieved to an excellent standard
* Good 4: achieved well
* Good 3: achieved mostly well
* Satisfactory 2: achieved with some shortcomings
* Satisfactory 1: achieved with shortcomings
* Fail: the thesis has not achieved the level satisfactory 1.

The following chapters describe the grading criteria for different theses.

## Research-focused thesis

### Assignment

* The thesis has a clear goal and purpose. The selected questions support goal achievement.
* The research problem is presented clearly.
* The selected assignment is topical and innovative and brings benefits for the workplace.

### Knowledge base

* Key concepts in terms of the topic have been selected for the thesis. They have been defined aptly and used fluently.
* The selected knowledge base supports the thesis assignment.
* The knowledge base consists of diverse sources that demonstrate strong knowledge of the topic, the operating environment and traditions.
* The thesis demonstrates in-depth source criticism. The reliability of the sources has been evaluated analytically and expertly.

### Topic definition and research questions

* The assignment is feasible, and justifications are given for the topic delimitation.
* Research questions are described in an understandable, sufficiently accurate and unambiguous manner.
* The assignments described in the research questions are challenging enough for a thesis.
* The student has shown initiative in defining and describing the objectives and the research problem.

### Acquirement of material and methods

* The thesis presents the methods and procedures for collecting material.
* The thesis describes the methods of analysing the material.
* The methods have been selected in a way that they can answer the research problem(s).
* The selection of methods is justified.

### Implementation process

* The thesis process has been completed independently and logically, relying on appropriate supervision.
* The implementation method of the thesis is fitting for the topic.
* The thesis follows a schedule independently prepared and described by the author.
* The author has demonstrated good project management skills during the thesis process.

### Results and conclusions

* The results have been clearly described and structured in a manner that suits the research problems.
* The results give an answer to the presented research problems/questions.
* The results have been thoroughly analysed and adapted to the methods used.
* The results have been reflected upon and linked to the theoretical section.
* The reliability of the results (reliability, validity) has been evaluated thoroughly and expertly.
* All research questions have been concisely answered in the conclusions.

### Reflection and development proposals

* The thesis demonstrates the development of the student’s expertise.
* Development proposals have been presented in the thesis and they are based on the results of the thesis.
* The results benefit the commissioning party and/or help to develop practices and working methods on the professional field.
* The thesis seminars were logical, clear, professional and analytical.

### Ethics, sustainability and responsibility

* The thesis follows good scientific practice and the ethical guidelines of the field.
* The author has demonstrated commitment and responsibility during the thesis process.
* The thesis has analysed sustainable development and responsibility from the viewpoint of the thesis topic.

### Reporting

* The structure of the report is consistent and clear.
* The report is written in a fluent and factual style, and it is free from errors.
* Sources have been used/utilised in a versatile and critical manner.
* The titles of the images and tables in the report explain their contents clearly and unambiguously.
* Sources, including image sources, are referenced according to instructions.
* The layout is finished and compliant with the instructions.
* The seminar presentation of the thesis is in-depth and illustrative.

## A practice-based thesis

### Assignment

* The thesis has a clear purpose and objective. The selected questions support goal achievement.
* The selected assignment is topical and innovative and brings benefits for the workplace.
* The assignment is feasible, and justifications are given for the topic delimitation.

### Knowledge base

* Key concepts in terms of the topic have been selected for the thesis. They have been defined aptly and used fluently.
* The selected knowledge base supports the thesis assignment.
* The knowledge base consists of diverse sources that demonstrate strong knowledge of the topic, the operating environment and traditions.
* The thesis demonstrates in-depth source criticism. The reliability of the sources has been evaluated analytically and expertly.

### Thesis plan and methods

* The implementation method of the thesis is fitting for the topic.
* The selected method is conscious and has been justified.

### Implementation process

* The thesis process has been implemented independently and it has progressed in a goal-oriented manner using the guidance provided by the supervisor and the commissioning party.

### Results and conclusions

* The end result corresponds to the set objective, and the scope of the analysis has been defined.
* The reliability of the results has been evaluated thoroughly and expertly.
* The conclusions connect the knowledge base, the materials and the author's personal reflection.
* The results benefit the commissioning party and can be applied in the development of the practices or working methods of the professional field.

### Ethics, sustainability and responsibility

* The thesis follows good scientific practice and the ethical guidelines of the field.
* The author has demonstrated commitment and responsibility during the thesis process.
* The thesis has analysed sustainable development and responsibility from the viewpoint of the thesis topic.

### Reporting

* The structure of the report is consistent and clear.
* The report is written in a fluent and factual style, and it is free from errors.
* The titles of the images and tables in the report explain their contents clearly and unambiguously.
* Sources, including image sources, are referenced according to instructions.
* Sources have been used/utilised in a versatile and critical manner.
* The layout is finished and compliant with the instructions.
* The seminar presentation of the thesis is in-depth and illustrative.

## A portfolio thesis

### Assignment

* The thesis has a clear goal and purpose. The selected questions support goal achievement.
* The selected assignment is topical and innovative and brings benefits for the workplace.
* The assignment is feasible, and justifications are given for the topic delimitation.

### Expertise on the knowledge base

* Key concepts in terms of the topic have been selected for the thesis. They have been defined aptly and used fluently.
* The selected knowledge base supports the thesis assignment.
* The knowledge base consists of diverse sources that demonstrate strong knowledge of the topic, the operating environment and traditions.
* The thesis demonstrates in-depth source criticism. The reliability of the sources has been evaluated analytically and expertly.

### Practical implementation and methods

* The thesis process has been completed independently, utilising supervision in an appropriate manner.
* The implementation method of the thesis is fitting for the topic.
* The selected method has been justified.

### Applying theory to practice

* The theory of competence areas supports the implementation of practical applications.
* The student analyses the applicability of theory and practice in different competence areas.
* The portfolio shows a clear improvement in professional competence.

### Improving one's own competence, ethics and reliability

* The thesis follows good scientific and professional practice and the ethical guidelines of the field.
* The author has demonstrated commitment and responsibility during the thesis process.
* The author clearly assesses their competence and possibilities to improve.
* The thesis demonstrates the development of the student’s expertise.
* The thesis has analysed sustainable development and responsibility from the viewpoint of the thesis topic.

### Reporting

* The structure of the report is considered and controlled.
* The report is written in a fluent and factual style, and it is free from errors.
* Sources have been used/utilised in a versatile and critical manner.
* Sources, including image sources, are referenced according to instructions.
* The layout is finished and compliant with the instructions.
* The seminar presentation of the thesis is in-depth and illustrative.

## An article thesis

### Assignment

* The thesis has a clear purpose and objective. The selected questions support goal achievement.
* The selected assignment is topical and innovative and brings benefits for the workplace.

### Knowledge base

* Key concepts in terms of the topic have been selected for the thesis. They have been defined aptly and used fluently.
* The selected knowledge base supports the thesis assignment.
* The knowledge base consists of diverse sources that demonstrate strong knowledge of the topic, the operating environment and traditions.
* The thesis demonstrates in-depth source criticism. The reliability of the sources has been evaluated analytically and expertly.

### Thesis plan and methods

* The implementation method of the thesis is fitting for the topic.
* The selected method is conscious and has been justified.

### Implementation process

* The thesis process has been completed independently and logically, relying on appropriate supervision.
* The implementation method of the thesis is fitting for the topic. The research framework of the thesis is appropriate and relevant.
* The selected publishing channel is conscious and has been justified.

### Results, products and conclusions

* The results give an answer to the presented research problems/questions.
* The reliability of the results has been evaluated comprehensively and critically.
* The articles have been combined into a meaningful entity in the conclusions. The knowledge base, results and personal reflection support each other.
* The article(s) share information related to research and development for the use of the professional community. The results of the article(s) are relevant and useful for the professional community.

### Ethics, sustainability and responsibility

* The thesis follows good scientific practice and the ethical guidelines of the field.
* The author has demonstrated commitment and responsibility during the thesis process.
* The thesis has analysed sustainable development and responsibility from the viewpoint of the thesis topic.

### Reporting

* The structure of the report’s contents is clear and logical.
* The report is written in a fluent and factual style, and it is free from errors.
* Sources have been used/utilised in a versatile and critical manner.
* Sources, including image sources, are referenced according to instructions.
* The layout is finished and compliant with the instructions.
* The seminar presentation of the thesis is in-depth and illustrative.

# Monitoring, evaluation and development of the thesis process

A precondition for continuous improvement of the thesis process is constantly collecting feedback. The thesis process and the supervision and guidance associated with it are developed as indicated by feedback from students and the commissioning organisations. The student provides written feedback on the thesis process (Appendix 8). The process is constantly being developed. The thesis guide is updated annually if necessary.

# Awards for outstanding theses

The Häme Foundation for Professional Higher Education and Research annually awards HAMK grants for theses of a high standard achieved at HAMK. By the student's permission, each degree programme may nominate a thesis for this award.

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