Guidelines for Theses and Dissertations

The Graduate School, Sookmyung Women's University

Detailed Rules for Enforcement of Graduate School Regulations

Article 62(the structure and standard of Theses and Dissertations) (revised 2015.12.30.)

Details on the structure and standard of the theses and dissertations for each program must comply with the "Sookmyung Women's University Graduate School Thesis Writing Act" separately set by the Graduate School Committee.

숙명여자대학교
SOOKMYUNG WOMEN'S UNIVERSITY

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Ⅰ. Theses and dissertations overview

1. What is thesis theses and dissertations?

Theses and dissertations refer to articles that researchers systematically write results of academic research with their opinions and arguments on specific topic in certain format and logical process. Theses and dissertations are divided largely into two types: academic papers (scholarly papers) and theses/dissertations.

The first type, academic papers, refers to papers published in the journal of professional academies, collection of papers of research institutes inside and outside universities. The second type, theses and dissertations, refers to papers that are submitted to acquire a Master's or doctoral degree after completing the Master's or doctoral program. Thus, they may be considered as products of education in graduate school. In other words, theses and dissertations are measures for determining whether one can contribute creatively to the accumulation of knowledge on important subjects in the field of one's own specialty or perform research independently.

They differ from general academic papers in that they need to be specific. That is, it is the norm that the trace of efforts made and time spent are reflected in theses and dissertations by presenting historical research on the topic for discussion or sufficient data.

2. Requirements for theses and dissertations

There are important common values for responsible research that restrict all researchers.

1) Creativity

Creativity refers to that the topic which is covered in paper should include new contents. That is, you should add new meaning by suggesting researcher's opinions and views, draw a new conclusion, or suggest new approach on problem solving. In this point, creativity does not just mean the novelty of material, but even if the material already covered, it is creative if the method of description, viewpoint, or making conclusion is novel.

2) Concreteness

The topic to be discussed should be the content of concrete facts, regardless of whether it is real or conceptual, so that the people in related field can recognize it. It does not just mean recognition, but it means discriminative features which are distinct from others.

3) Objectivity

Theses and/or dissertations should be supported by facts and evidence, not researchers' subjective opinions, and when researchers express their opinions, the scientific data obtained during the research process should be suggested as evidence.

4) Accuracy

In order for delivering researcher's opinions correctly to other people, statistical data presented in the paper, cited person name, or title of article should be accurately described. In addition, not only contents of the paper, but also format of footnote and reference list should be completed accurately and uniformly.

5) Verifiability

The contents of the paper should be described so that anyone can reproduce and utilize the right and wrong of suggested new data, solutions, and conclusion. Therefore, the paper should specify resources of data, viewpoints or methods of research, and ways

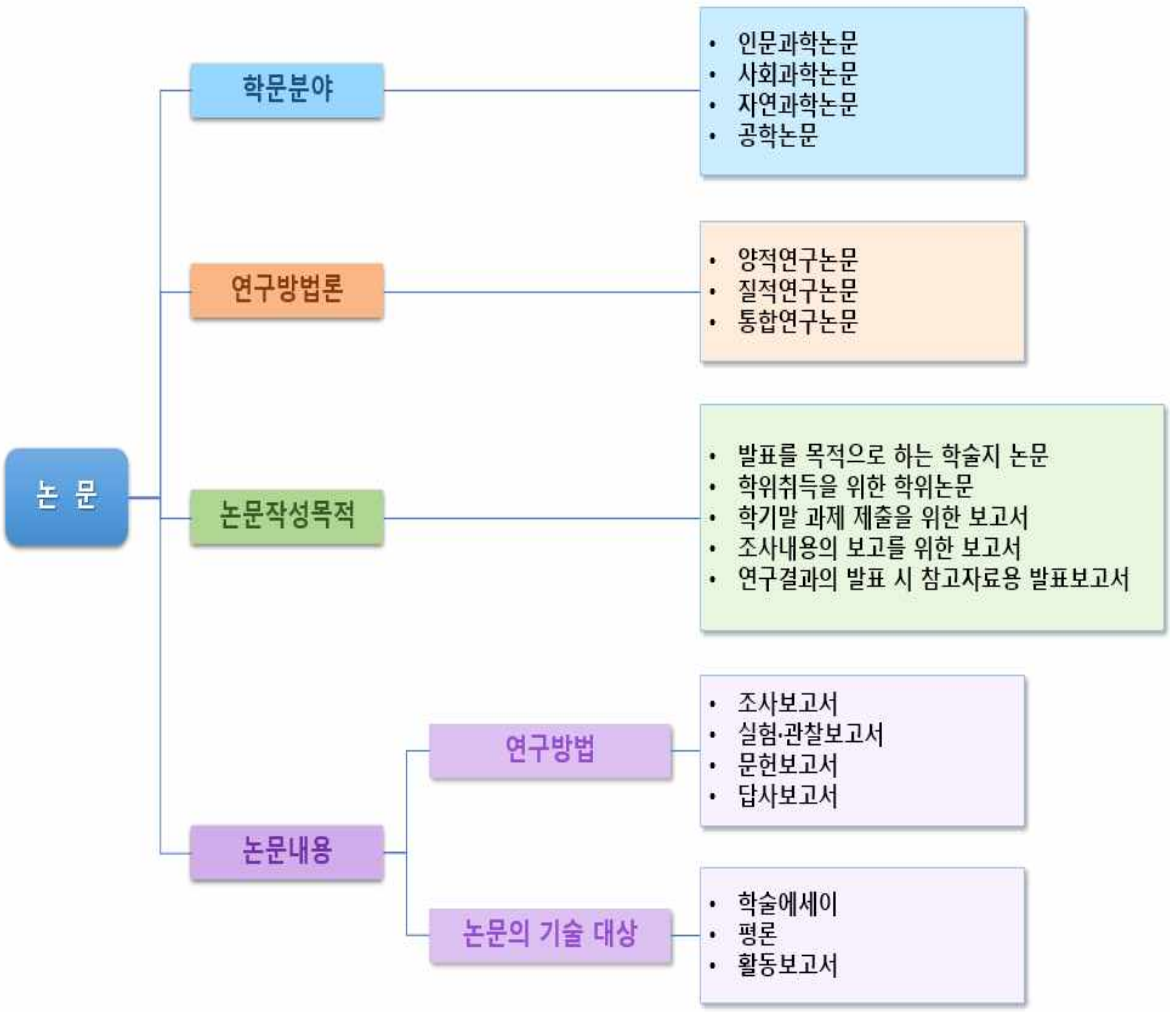
of approach the subject. In other words, verifiability means that it is possible to observe or measure the authenticity of contents of the paper, and thus, definite description is possible.

6) Utility (Usefulness)

The new information suggested as results of the paper should be useful for the field of study or related fields.

3. Types of Academic Writing

Types of academic writing are varied in relation to the various perspectives, such as publication scopes, readers, disciplines, research fields, purposes, contents. The specific types of academic writing varied with the various perspectives are as follows.



▌Source: 노영희, 박양하 (2022). 논문자료 탐색과 논문작성법. 서울: 청람

Types of academic writing

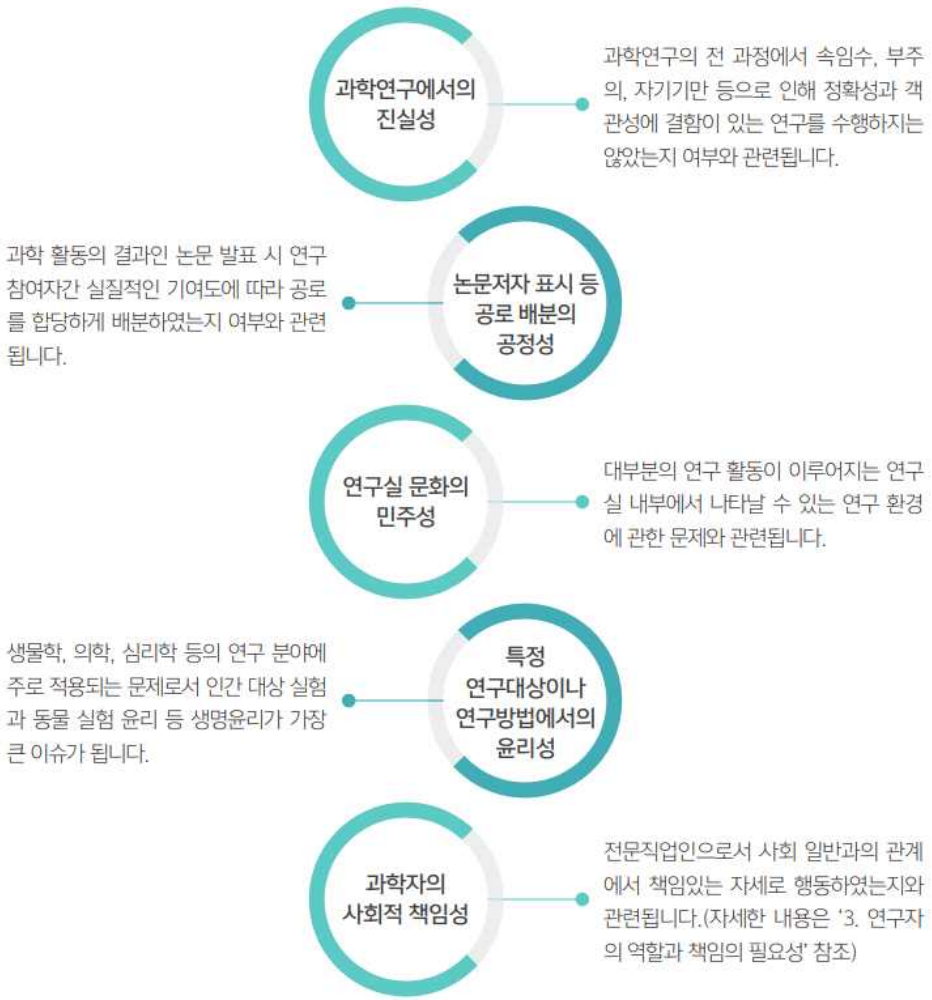
Criteria	Contents
Disciplines	- The Humanities paper - The Social sciences paper - The Natural sciences paper - The Engineering paper
Research methods	- Quantitative research paper - Qualitative research paper - Mixed methods research paper
Purpose of paper	- Journal article to publish - Thesis/Dissertation to acquire a Master' s or doctoral degree - Term paper to write assignment over an academic term - Report to report on the investigation - Proceedings published in the context of an academic conference
Contents	Research methods - Investigation report - Experimental report (lab report) - Survey report Subject of description - Academic essay - Review - Activity report

Source: 노영희, 박양하 (2022). 논문자료 탐색과 논문작성법. 서울: 청람

Ⅱ. Research ethics for theses and dissertations

1. Research ethics and misconduct

'Research Ethics' refers to the principles and behavior patterns that researchers should follow while conducting research. In a narrow sense, it is rules that researchers should conform when they submit and conduct a research and report the results. The scopes of research ethics are consisted of 5 categories as follows.



▎Source: 연구자를 위한 윤리지침 (국가생명윤리정책원) <http://www.nibp.kr/xe/>

Category	Contents
Integrity in scientific research	It is related to whether the entire process of research has been conducted with a defect in accuracy and objectivity due to deception, carelessness, and self-deception.
Fairness of distribution of contributions, such as the indication of authors	It is related to whether the contribution was reasonably allocated according to the actual contribution of the study participants when presenting the paper, which is the result of scientific activities.
Democracy of laboratory culture	It is related to the problem with the research environment that may arise inside the laboratory.
Ethics in specific research subjects and methods	It is a problem that mainly applies to biology, medicine, psychology, etc., and bioethics such as human experiments and animal experiments ethics are the big issue.
Social responsibility of scientists	It is related to whether a scientist responsibly acted with the general public as a professional.

Source: 연구자를 위한 윤리지침 (국가생명윤리정책원) <http://www.nibp.kr/xe/>

The roles and responsibilities of researchers are stipulated in 「Directive for the Upholding Research Ethics」, Ministry of Education. According to this, 1) researcher should conduct the research by freedom of research and autonomy, 2) comply with the research ethics guidelines according to the principles of honesty and responsibility, and 3) the roles and responsibilities of researchers related to research ethics are basically required regardless of the field of study.

According to 「Directive for the Upholding Research Ethics」 Article 12 (1), Ministry of Education, 'Research misconduct' is defined as the "the fabrication, falsification, plagiarism, duplicate publication, and unjust indication of an author regarding research planning, conduct, or evaluation, or reporting of research results." The specific types and contents of research misconduct are as follows.

Category	Contents
Fabrication	Act of creating non-existent data or false research results and recording or reporting these. (e.g. creating and making up results without interview and experiment, addition of data that never occurred in the running of experiments to real experiment results for statistical validity)
Falsification	Act of distorting research content or results by artificially manipulating research data, equipment, or process or arbitrarily changing or deleting data or research results.
Plagiarism	Act of making the third party recognize as if his or her own creation by utilizing some else's creative ideas or works, not general knowledge, without giving appropriate credit via full citation. - In cases where all or part of others' research are used without giving appropriate credit; - In cases where words or sentence structures of others' copyrighted work are used without giving appropriate credit; - In cases where original ideas of others are used without giving appropriate credit; - In cases where translations or utilization of other's work are used without giving appropriate credit;
Unjustified authorship	Act of not granting qualification of author to a person who made contributions to research contents or results without justifiable reason, or granting qualification of author to a person who has not made contributions for reasons such as token of appreciation or honor. - In cases where authors who have made little or no contributions to the research or writing of a manuscript are named; - In cases where authors who have made contributions to the research or writing of a manuscript are removed; - In cases where the academic advisor publishes his or her student's thesis as his or her own work;
Unjustified Duplication	Act of obtaining unfair advantages by publishing a work that is identical or substantially similar to his or her previous research outputs without giving appropriate credit. (e.g. re-submitting and publishing the paper that is identical or substantially similar to his/her previous research without informing the existence of published paper)
Interference with the investigation on research misconduct	Act of intentionally interfering with the investigation of research misconduct or inflicting harm on the complainant.
Other	Other practices that seriously deviate from those that are commonly accepted within each academic field.

▌Source: Ministry of Education Ordinance 「Directive for the Upholding Research Ethics」, A Guidebook of Publication Ethics in Science and Engineering (National Research Foundation of Korea)

2. Human experiments and IRB

Regarding research, having humans as a subject of experiment brings benefits from various perspectives ranging from contribution to the development of new drugs and medical treatment to understanding of how we think and behave. However, such experiments can cause risks to the research subject that cannot be predicted. To ensure such risk is not greater than the benefits gained through experiment, research targeting humans is strictly regulated.

Researchers targeting humans should conform to all governmental rules relating to the protection of subjects, applicable laws, regulations, and policies of government-funded institutes. Moreover, they should also follow reasonable rules made by expert groups. Above all, they should be aware of the following items to carry out such responsibility:

- Know which research is subject to regulations.
- Understand and follow the rules for a project's approval.
- Receive appropriate training.
- Exercise continuous responsibility of conforming to rules in all stages of the project.

Before starting research targeting humans, it should be reviewed by IRB(Institutional Review Board) in education · research · medical institutions that conduct experiments targeting human subjects and human derivatives which is established to protect the legal obligations and human rights of whom intend to conduct research targeting humans regulated in 「Bioethics and Safety Act」, to review scientific and ethical validity of research such as research subjects protection, personal information protection, and appropriateness of research methods.

- **What is ‘human subjects research’ in Bioethics and Safety Act?**

1. Research targeting humans including physical intervention: it is research that obtains data by directly manipulating research subjects or manipulating the environments of research subjects
2. Research performed through interactions including communications, and interpersonal contact: it is research that obtains data by behavioral observations and face-to-face surveys of research subjects
3. Research utilizing personally identifiable information: it is research that uses information that can directly or indirectly identify the research subjects

Currently, it is impossible to predict the legally direct disadvantages imposed on researchers if they have not been reviewed by IRB. However, researchers should judge themselves and voluntarily be reviewed because it is gradually enforced by revision of related upper laws and there might be restrictions of scholarly activities as compliance with research ethics becomes important throughout the academic world. (Recently, there are cases where IRB review and approval are mandatory, such as receiving R&D supports from governmental agencies, or requiring IRB approval from academic journals.)

Sookmyung Women’s University Institutional Review Board(SMU-IRB) was established and operated to ensure human bioethics and safety of humans and human derivatives conducted in Sookmyung Women’s University, as prescribed by the「Bioethics and Safety Act」. Institutions and researchers conducting human subjects research on and off campus should submit 「Application for planning of human targeting experiment」 including research plans and research proposals to IRB, and conduct the research after approval.

※ For more detailed information, refer to the regulations of the Sookmyung Women’s University IRB & IACUC <https://irb.sookmyung.ac.kr/index.htm>

3. Animal experiments and IACUC

As in experiments targeting humans, animal research is subject to strict regulations for various reasons. Regulations for research targeting humans arose from the need to avoid imposing an intolerable burden to the small number of subjects vis-à-vis considerations for the benefits that all humankind can get through research targeting humans. Animals can also benefit from information gained through animal experiments, and some

studies are conducted for the purpose of improving the health of animals. However, most animal experiments are usually carried out for humans, not for animals. Moreover, unlike humans, animals cannot consent to participation in an experiment or provide feedback on treatment, and thus, special requirements need to be considered when experiments are conducted using animals:

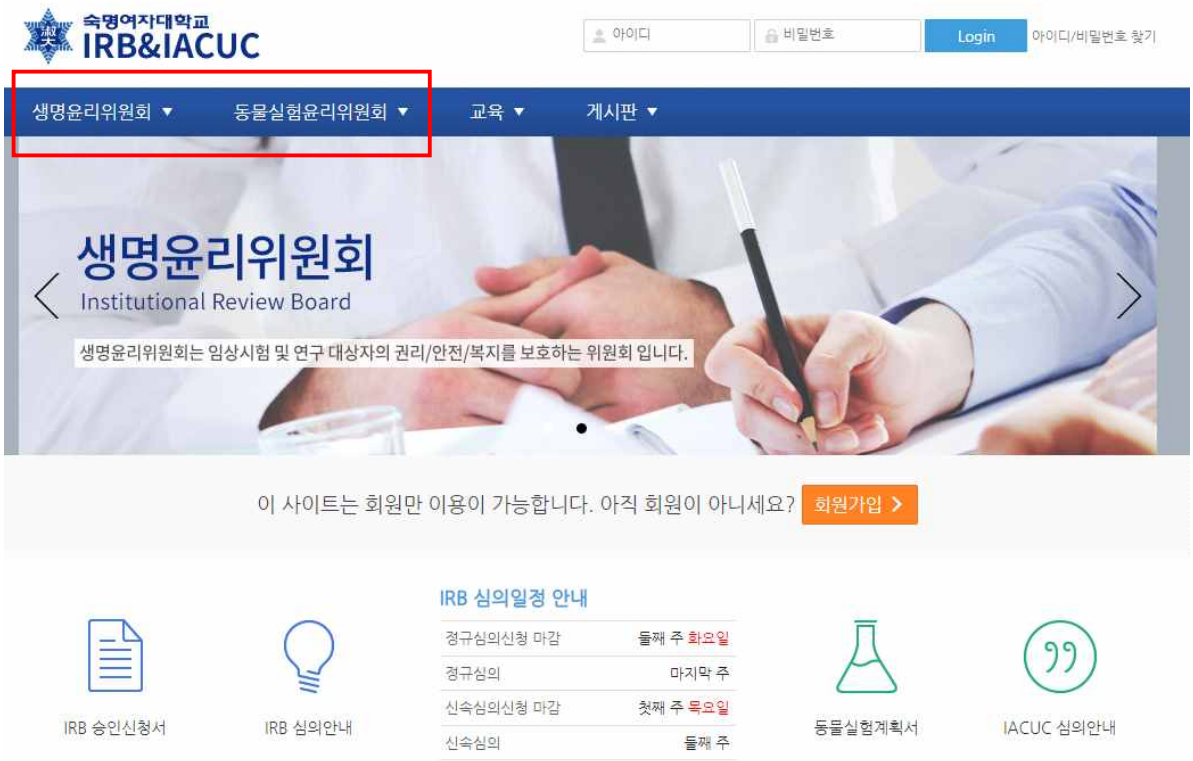
- Know which types of activities are regulated.
- Understand and follow the rules for approval of a research project.
- Receive appropriate training.
- Exercise continuous responsibility of conforming to rules in all stages of the project.

If you plan to experiment on live animals in research, you should be aware of the responsibilities prior to planning or conducting the research and then obtain approval from a person in an authorizing position.

Accordingly, in our university, Sookmyung Women's University Institutional Animal Care and Committee (SMU-IACUC) was established on May 26, 2008. Regarding deliberations for research and investigations that perform animal experiments using animal experiment facilities within SMU, as well as educational training and committee management, regulations are enacted. Thus, the research institute and researcher performing animal experiments within or outside the University should submit "Application for planning of animal experiment", including research planning and research items, to the ethics review committee,

submit to the review, and receive approval prior to conducting experiments.

※ For other detailed items, refer to the regulations of the animal experiment ethics review committee on the homepage of SMU-Industry-Academic Cooperation Foundation <https://irb.sookmyung.ac.kr/index.htm>



▎Sookmyung Women's University IRB & IACUC Hompage <https://irb.sookmyung.ac.kr/index.htm>

Ⅲ. Structure and style of theses and dissertations

※ From the 2022 Fall semester, book theses and dissertations (Hard-bound thesis) are not required to submit, and only theses and dissertations in a digital file format are required to submit to the Sookmyung Women's University Library.

※ Please utilize the book thesis (printed version) chapter only for reference.

1. Requirements for basic editing

The items to keep in mind before writing a paper via computer are as follows.

Category	Contents	
Paper size	• A4(210mm x 297mm) • Vertical direction as a default	
Paper margin	<Hangul (한글)>	• Top and bottom margin: 38mm; Header and footer: 15mm • Left and right margin: 35mm; Margin for binding: 0mm • Line spacing: 180% as standard (adjustable between 130% ~ 200%)
	<MS-Word>	• Top and bottom margin: 5.3cm • Left and right margin: 3.5cm; Margin for binding: 0cm
Alignment method	• All content should be based on full alignment. • First line of each paragraph is indented by two characters.	
Font/ Font size	• Big title: 16 point (use myeongjo, sinmyeongjo, or batangche), bold • Middle title: 14 point (use myeongjo, sinmyeongjo, or batangche), bold • Subtitle: 12 point (use myeongjo, sinmyeongjo, or batangche), bold • Main text: 11 point (use myeongjo, sinmyeongjo, or batangche) • Footnote: 9 point (use myeongjo, sinmyeongjo, or batangche) ※ Times New Romance available when writing in MS-Word	
Page number	• 20 mm from the bottom, place in the middle, do not put hyphen (-)	
Paragraph format	• For paragraph titles, indentation should be made as unit lowers. • The start of each paragraph should be indented by two characters regardless of title location.	
Other	• When text in a chart or a long quotation in the middle of a page is processed as a paragraph but involves changing lines, the standard should still be 10 point font size and 130% line spacing (0.5 line spacing on MS Word). • However, adjustments may be made to avoid editing problems. • The table of contents should be written according to the same procedure as the main text of the paper.	

2. Composition and order for theses and dissertations

In order to write systematic and logical theses and/or dissertations, you should reflect the systematicity of both content and format. Theses and/or dissertations can be divided largely into the preliminary, main text, and reference materials sections.

Although space for the preliminary section is generally the same regardless of the field of study, acknowledgments are optional, whereas figures and appendices, table of contents, and abbreviations are applied only when needed. For other items in addition to tables, figures, and appendices, their table of contents will be included after the table of contents for appendices.

The content of the main text varies by field and whether in the humanities and social sciences or natural sciences. Universal details are shown in the following table. However, composition of the main text may vary by the nature of the researcher's department. Reference materials are organized in the order of references, appendices, and abstract in a foreign language. Other items, such as figures, can be added and should be attached after the additional annex.

Humanities and Social Sciences	Natural Sciences
<Preliminary>	<Preliminary>
Cover	Cover
Title page	Title page
Submission form	Submission form
Approval form	Approval form
Acknowledgement	Acknowledgement
Contents	Contents
List of tables	List of tables
List of figures	List of figures
List of appendices	List of appendices
Abbreviation	Abbreviation
Abstract in Korean	Abstract in Korean
Keywords in Korean	Keywords in Korean
<Main text>	<Main text>
Introduction	Introduction
Body	Material and method
Conclusion	Results
	Review and discussion
	Conclusion
<Reference materials>	<Reference materials>
References	References
Appendices	Appendices
Index	Index
Abstract in a foreign language	Abstract in a foreign language
Keywords in a foreign language	Keywords in a foreign language

3. Method of writing theses and dissertations

3.1 Humanities and Social Sciences

1) Preliminary

In the preliminary stage, basic forms for submitting the various parts of a paper, including the cover, title page, submission form, and approval form, are included.

(1) Cover and spine

On the front cover of the paper, you should write the ① paper title in Korean or English (when the text is written in English), ② name of the affiliated graduate school, ③ affiliated department or field of study, and ④ name of the author. On the spine (side page of the paper), you should write the ① paper title, ② submission date, and ③ name of the author. At this time, the area for the lines indicating "Master's thesis or doctoral dissertation" on top of page and affiliated graduate school, department or field of study, and submitting researcher's name on the bottom must be filled in their respective specific locations. The title area in the middle should be set in the appropriate size by the prescribed length (refer to <annex 1>).

As the title is the equivalent to the face of the paper, it should be composed as to clearly inform the reader of the paper's content. As the paper title for the thesis proposal goes through the formal announcement of the paper, or the pre-screening process, it may be revised but within the range in which it does not differ largely from the original content of the research plan. A title may be written in Korean or English depending on the language of the main text.

(2) Title page

One white page is inserted after the cover, and on the next page, the ① title in

Korean, ② title in English, ③ name of affiliated graduate school, ④ name of affiliated department or field of study, and ⑤ name of researcher are again written. Although the size of the cover and title page is different, all formats should be followed equally (refer to <annex 2>).

(3) Submission form

On the page after the title page, the ① paper title in Korean or English, ② name of supervisor, ③ submission form, ④ paper submission year and month, ⑤ name of affiliated graduate school, ⑥ name of affiliated department, and ⑦ name of researcher should be written.

The submission date should be written as the expected graduation year and month (年月); the date (日) should be omitted. For all requirements, you should follow the rules presented in the appendices. For the paper title, the font size may be adjusted depending on its length. As the paper submission date is earlier than the graduation date, those who are expected to graduate in February should write December of the previous year as the applicable year, whereas those who will graduate in August should write June of the applicable year (refer to <annex 3>).

(4) Approval form

On the page after the submission form, the ① approval, ② Korean title or English title, ③ expected date of approval, ④ signature space for examiners (examiners for Master's degree: three people; examiners for doctoral degree: five people), and ⑤ name of affiliated graduate school, should be written. As the approval date is earlier than the graduation date, those who will graduate in February should write December of the previous year and those who will graduate in August should write June of the applicable year, as in the case of the submission date (refer to <annex 4>).

(5) Acknowledgement

The researcher may express appreciation to those who have directly guided the

research as a supervisor or provided help in various forms, including advice required for research and cooperation for data surveys. It is general to express appreciation; exaggeration or overly light expression of appreciation should be avoided. The acknowledgement section is not mandatory.

(6) Table of contents

The table of contents is a skeletal structure revealing an outline of the paper and includes the Korean abstract and main text, references, appendices, and abstract in a foreign language. The table of contents is generally divided into three levels, including chapter, section, and clause. A dotted line should be typed after each title, and the page number on which the content starts should be marked.

The content of the main text is indicated in order. They should be divided into I, II, III…, and the order of sub-units should be subdivided by the order of 1, 1), A), (1), (A), ①, ②. Although units are basically divided in accordance with the requirements above, a different method may be used as needed. In the table of contents, you should draw a dotted line and give the page number; the page number should align with the right side of page (refer to <annex 5>).

Table of Contents	Classification of chapter, section, and clause levels 1	Classification of chapter, section, and clause levels 2
Contents····· i	I. Introduction	Chapter 1 Introduction
List of tables····· ii	1.	Section 1
List of figures····· iii	1.1	Clause 1
Abstract····· iv	1.1.1	1.
Chapter 1 Introduction·····1	1.1.2	2.
Chapter 2 (title)·····10	1.1.2.1	A.
Section 1 (title)·····10	1.1.2.2	B.
Section 2 (title)·····20	1.1.2.2.1	1)
1. (title)·····20	1.1.2.2.2	2)
2. (title)·····30	II. (Body - title)	A)
Chapter 3 (title)·····80	1.	B)
Chapter 4 Conclusion····100	1.1	(1)
References·····110	1.1.1	(2)
Appendices·····120	1.1.2	①
Abstract in a foreign language····· ·····130	1.1.2.1	②

(7) List of tables, Figures and appendices

When there are tables, figures, and photos, the “list of” tables should be written and inserted after the table of contents. The page number on which tables and figures are contained should be indicated. The sequence should be <Table 1>, <Table 2>……, <Figure 1>……, <Figure 1>…….

For tables and figures used in the paper, you should draft the list in the order in which they appear in the paper. When writing the list, write the title of tables. Although it may be indicated in Korean or English, a combination of both is not permitted (refer to <annex 6>).

(8) Korean abstract

The Korean abstract, which briefly tells the overall flow and argument of the paper, plays a role in helping readers understand the general content and direction

of the paper. Although the abstract is written in a range of 2 to 5 pages, it should be written in a way that readers can understand the research content just by reading the abstract itself.

What must be included in Korean abstract are the ① title of paper, ② research purpose, ③ research method, and ④ important research results. If needed, the main conclusion may be included. Further, in the abstract, references or diagrams cannot be used and use of abbreviations should also be avoided if possible. When abbreviations are inevitable to be used, you should write the full form first, indicate the abbreviation in parentheses, and then use abbreviation from the second time (for example: at first mention, write "Sodium Dodecyl Sulfate (SDS)" ; from the second time this term is used, you should use "SDS").

The Korean abstract should be written in Korean regardless of the main text language. There is no need to list the paper title, researcher's name, department name, and university name to avoid information overlap with the abstract in a foreign language in the last part of the paper (refer to <annex 7>).

Article 39 (Theses and Dissertations Language) (Enforcement 2019.04.10.)

In principle, the thesis should be written in Korean, and an abstract in one of English, German, French, Chinese, and Japanese should be attached. However, if the thesis is written in a foreign language designated above, an abstract in Korean must be prepared.

2) Main text

(1) Introduction

The introduction describes the research requirements, purpose, core problem, research significance, and implications based on a summary (succession and criticism) of previous research results for results for the research topic. When using concepts or terminologies specific to field of study, which are difficult to be used in general context, the introduction plays an important role in preventing the issue from being dispersed by clarifying the definition of such words. The introduction should be the first chapter, and page 1 of the paper starts from the first page of the introduction.

(2) Main text

As the main text is the core of the paper, it should discuss and demonstrate the researcher' s findings, opinions, analysis, claims or objections, and criticism on the basis of clear and persuasive grounds for argument. Therefore, logical consistency is significant in the main text. Although footnotes should be faithfully provided to reinforce the persuasiveness of the paper, it is desirable to exclude information not directly related to the paper content. Diagrams or charts may be used, but a clear basis or origin should be provided in a range that does not interfere with the description flow of the paper.

(3) Conclusion

As the conclusion is the end of the paper, it reconfirms the key results of the study or findings and can suggest a new research subject that should be studied in the future. In addition, proposals and recommendations grounded on the research are not always necessary.

※ For more detailed information about the method of writing 'Main text', refer to 'Ⅳ. Methods for writing theses and dissertations'

3) Reference matters

(1) References

Statements cited in the main text or footnotes must be referenced appropriately and included in the reference. References should be arranged in order of Eastern (in the sequence of Korea, China, Japan, and other countries) and Western literature, and the order of Korean or Roman alphabets based on the author's name. However, since the format of references may vary by study field, it is necessary to write in a consistent format using reference management software (such as RefWorks, EndNote...).

※ For more detailed information about the method of writing 'References', refer to 'Ⅴ. Considerations on writing theses and dissertations'

(2) Appendices

Appendices are written after references; they should start immediately without a page break. Appendices usually include additional explanations, inquiry forms, questionnaires, tables, graphs, legal provisions, chronological tables, maps, and texts. For example, if the symbols used in the formula or detailed data from experiments and observations are listed as tables, they should be attached as appendices after the reference. In addition, although there is no direct relation with developing the content of the paper, if it is better to describe for reference but the volume is large, it could be cut off and attached as appendices.

You should write appendices without inserting another paper that says 'Appendices'. When there are more than two appendices, they should be marked by clearly dividing them into <Appendix 1>, <Appendix 2>, and so on (in the case of English, Appendix 1, Appendix 2 or Figure A, Figure B), and each appendix should have a title.

(3) Abstract in a foreign language

The foreign language abstract should be written in English as the standard and may be written in other languages in accordance with the characteristics of the major field of study. That is, when the abstract of the paper is in Korean, the researcher should choose one foreign language among English, French, German, Chinese, and Japanese; when the abstract of the paper is in a foreign language, the researcher should write in the same language as the language used in the main text.

The abstract in a foreign language summarizes the title, purposes and methods, and results of research described in Korean abstract, and should be simply written in English. On top of this abstract, the paper title, researcher' s name, field of study, and university name should be stated. It should be between pages 2 and 5 of the completed paper.

(4) Keywords

Keywords are the words that can implicitly represent the main contents of the paper, so you should select the words that can use as index terms for searching the thesis, and present them after the abstract. Keywords are listed in the order that best represents the topic of the paper.

After the Korean abstract, you should write the keywords in Korean; after the foreign language abstract, you should write the keywords in the applicable language. Keywords, written in lowercase, should be limited to five to eight in number and should be separated from the abstract by a 1.5 pt. line (refer to <annex 7>, <annex 8>).

3.2 Field of natural sciences

1) Preliminary

※ For more detailed information about the method of writing ‘Preliminary’, refer to ‘3.1 Humanities and Social Sciences’

2) Main text

For this part, the universal rules for drafting the main text of theses or dissertations in the field of natural sciences are set. Accordingly, although this format may be used as it is or with slight revisions, special main text formats for each field may also be used in accordance with the nature of the study, as the field of natural sciences is too broad. These formats are roughly introduced in the following.

- Mathematics: Introduction, definition or lemma, theorem, and summary
- Statistics: Introduction, concept definition, simulation study, and conclusion
- Physics, chemistry, life sciences, food and nutrition, pharmacology: Introduction, materials and method, results, discussion, and conclusion
- Information science: Introduction, study on background knowledge, explanation about system and design, system implementation and results, and conclusion and future project
- Clothing and textiles: Introduction, literature review, research method and procedure, results and discussion, and conclusions and recommendations
- Home economics: Introduction, theoretical background, hypothesis setting and research methodology, results, discussion, and conclusion
- Fine arts: Introduction, theoretical background, analysis on characteristics of own work, and conclusion
- Music: Introduction, theoretical background, research method, and research results and conclusion

Although certain paper formats cannot be specified owing to the nature of the natural sciences as such, items that need to be considered when writing the paper are as follows.

(1) Introduction

The main text starts with an introduction, and the first page of the introduction becomes the first page of the paper. Thus, when starting the page numbering of the paper, use Roman (lowercase) for the preliminary part (contents, list of tables, and list of figures) and the Korean abstract part, and then Arabic numbers beginning with the introduction.

In the introduction, the research requirements and purpose, research problem, rationale for problem setting, research significance and importance, definition of terms, and research limitations are presented. The introduction reveals the problem in which the researcher has an interest, and why such research problem is important and to what extent it is important. When the definition of the key variables of the research problem and limitations of the research are clearly stated, the rest of the paper can be conveyed without misunderstanding.

When first presenting the research problem at the beginning of the introduction, detailed or specialized and esoteric predicates or concepts should not be introduced. It is desirable to provide a general introduction of the research problem that will be explored in the paper. Further, the proper approach is to describe specifically a research problem after explaining the background of the research problem in addition to general research trends in the field related to the research problem. The research problem is drawn by examining the theory and previous studies using a logical and systematic method. It should be described by naturally and logically organizing concepts in accordance with the results of previous studies or the examination process of the theoretical background.

When using abbreviations, write the full form first (with the abbreviation indicated in parentheses) even for abbreviations used in Korean. Beginning with the second mention of the term, the abbreviation should be used. Abbreviations used in the introduction can

be used continuously in the materials and method, results, review (discussion), and conclusion sections as well. When there are many abbreviations, you may draft a list of abbreviations separately and attach it after the list of appendices.

(2) Review of previous studies (literature reviews)

The review of previous studies confirms the progress of contents that are examined or progress of studies to date. It is a process of avoiding duplication of research or confirming assumptions or propositions related to a research topic, and at the same time, a process of discovering new views related to one's own research subject through the review of existing practices and theoretical discussions.

The review of previous studies examines domestic and foreign academic journals or papers of related fields. Thus, information on research progress, problems of interest, research methods, and researchers can be obtained. As the section 'literature reviews' is not mandatory, it may not be included in the main text. In such a case, you may proceed to 'materials and method' immediately after introduction.

(3) Materials and method

As this item is essential for writing a paper for the field that requires experiment, it should be described accurately and in detail. In other words, the types and sources of materials used in the experiment and the experiment method should be described in detail, if possible. This is to help other people obtain the same results by repeating the same experiment even if the materials used in the experiment and experiment method are not creative. When the research method used is a creative method that you designed, it should be described in more detail. The detailed description of experiment materials and method is essential for determining whether the research results obtained by the researcher can be achieved or replicated through appropriate experiment by readers.

Regarding the materials and method, the experiment materials are written first

and then the experiment method is written. They do not necessarily need to be divided. Moreover, when other researchers' method is cited or used with modifications, you must present references. Regarding the experiment materials and research method, the following items need to be considered.

- When naming experimental materials, use scientific names, if possible.
- When indicating animals, the strain should be clearly revealed.
- The general principle is to use a general name (Nonproprietary name, Generic name) for drugs and chemicals. When there is no general name, it should be written properly in accordance with the Merck Index.
- On the back of the names of the strains used in experiments and important drugs and experimental equipment, the purchase source (in the order of product number, manufacturer, manufacturing region, manufacturing country) should be stated such that other researchers can obtain the same items when needed.
- For the names of plants, animals, and microorganisms, the genus and species names should be written in italics. When writing, the full genus and species names should be written out first; from the second mention, only the first letter of the genus name and species name should be used (e.g., *E. coli* for *Escherichia coli*).
- When equipment used for research is newly designed, adequate figures may be used in the paper or appendices to help readers understand its use.
- When experiment results are processed statistically, the method used should be stated along with references.

(4) Results

The research results section is the most important portion that forms the main axis of the paper. When describing the results, the content described in the materials and method can be summed up here as needed. The research results should be presented accurately as fact gained from the materials and experiment method used. Revising the research results because they are not the ones that you expected is considered as misconduct.

Although the research results may be explained in writing, the use of figures or tables helps readers in understanding the results. However, presenting the same results in the figures and tables should be avoided. When presenting the research results in tables or figures, indicate the corresponding table or figure number in parentheses after the description of applicable results. Additionally, the tables and figures should be presented on the page following the applicable research results to ensure readers can easily refer to them.

(5) Review

Although a review (discussion) section may be separated from the results section in a thesis and/or dissertation, both sections may be merged and written as 'results and review.' This section is a description of the process to propose a new theory through theoretical analysis from various angles or to draw a conclusion, including accepting or rejecting the theory that was announced previously in the same field. Thus, for the validity of the conclusion to be recognized objectively, you should make reasonable claims for the findings by sufficiently citing studies that have similar meaning in terms of results or reported conclusion similar to your own in related fields, as well as studies that have drawn different conclusions.

If the review is not written sufficiently to fit the logic of the thesis and/or dissertation, value is lost, and the paper will be merely a report of results. Items to keep in mind when writing the review are as follows.

- A rambling repetition of the content described in the introduction or research method and research results should be avoided; the review should be written based on parts that are needed.
- To reach the correct conclusion based on the research results, you should accurately address the core of the problem such that the review does not become ambiguous.
- To avoid ambiguity in the review, the results, which need to be reviewed, should be written. It is inappropriate to highlight the results that you like among the results gained while not mentioning the results that you do not like.
- When critiquing the results of other researchers or opinions, do so diplomatically by presenting scientific evidence in a logical manner.
- At the end of the review, on the basis of the results of the research, the problem that needs to be studied continuously and the direction for addressing the said problem should be presented.

(6) Conclusion

The conclusion, as a summary of the entire paper, should be described simply and clearly; serial numbers are given for the content addressed in the research purpose, materials and method, results, and review. Depending on the case, a review may not be included.

As statements on the research conclusion are already presented in the results and discussion to a certain extent, in the conclusion section, you should present the key conclusions at a general level rather than combining the aforementioned statements. The conclusion should be written in concise and simple sentences, excluding possible modifiers. Further, it is a principle not to cite literature in the summary part, which should only briefly summarize the paper.

When drawing conclusions, consider previous findings and pay attention not to generalize or underestimate the research results. Requirements for writing the conclusion are summarized as follows.

- The research purpose and materials and method should be described in one sentence concisely.
- The research results should be written concisely.
- Among the contents that are described in the review, the applicability of your own research results or future research method should be described concisely.
- References should not be cited.

3) Reference matters

※ For more detailed information about the method of writing ‘Reference matters’, refer to ‘3.1 Humanities and Social Sciences’

※ ‘Reference format’ is varied by study field, so refer to the guidelines of each field of study.

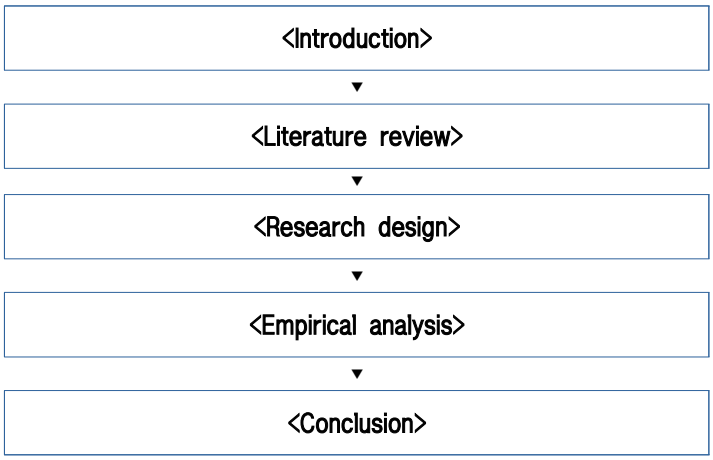
Ⅳ. Methods for writing theses and dissertations

1. Selection of paper topic

The paper topic should be concise and clear as it indicates the fundamental problems to be discussed or the key content. It should be expressed in one sentence. The following items need to be considered when selecting a topic. First, the paper topic should be one that has sufficient basis as a problem, knowledge on which the researcher has interest and concern. Second, if possible, the topic should be creative and innovative. Third, it is good to choose a problem from which a clear conclusion can be drawn; that is, the topic must involve a solvable problem in consideration of the given conditions and researcher's abilities. In addition, the possibility for development and expansion needs to be taken into account.

2. Structure of paper and writing

In order to effectively deliver the contents and purposes of research, it is necessary to appropriately divide the structure of the paper and systematically write the paper. The structure of theses and/or dissertations is not in a certain format but is varied by the contents and methods of research, specific institutions, and study field. However, in general, the structure of theses and/or dissertations largely consists of three parts: introduction, body, and conclusion, and each part is subdivided into several items as follows.



▌Source: 박성민, 김선아 (2019). 인문사회과학자를 위한 논문 작성 Handbook. 서울: 성균관대학교 출판부

2.1 Introduction

It is a process of enhancing the reader's understanding of the contents forthcoming by presenting the topic covered in the paper and the importance of the paper. The role of <introduction> in the paper is the starting point of the research, suggesting overall direction, and controlling the research contents.

Structure of introduction

step 1. Suggesting the research purposes and research questions	Along with a background explanation of the start of the research, the purpose of research to be achieved through research should be implicitly presented. According to the research purpose, researchers can organize verifiable research questions based on the following three factors. • The novelty of research questions: need to consider differentiation against previous studies • Importance of research questions: need to consider the academic and utilitarian value of the research • Solvability of research questions: need to consider the researcher's ability to perform research and the appropriateness of the research scope
▼	
step 2. Suggesting the contents and methods of research	The main topic covered in research is explained. The main methodology that is applied to find the resolution of research questions is explained. • In case of exploratory research, describe what new facts you want to uncover through the research • In case of descriptive research, describe what facts you want to prove through research, focusing on the relation between variables
▼	
step 3. Suggesting the expected effect	The expected effect on academic and practical aspects is suggested. • Academic aspect: contribute to improving the generalizability of existing theory, discovering new facts, and laying the foundation to form the new theory • Practical aspect: based on the results of research, suggest institutional improvement to change society, and explain and predict the social phenomena
▼	
step 4. Suggesting the structure of the paper	• Discuss the overall flow of research • Briefly present what each chapter will discuss after the introduction

2.2 Body

1) Literature review

The logical basis of the research is presented through theoretical and institutional discussions related to research and a review of previous studies, and the importance and differentiation of the research are emphasized. The role of literature review is broadly reviewing the existing theories and previous studies, providing readers with a detailed explanation of the research topic and main concept covered in the research, 1) guide on key concepts and related research, and 2) suggesting the opinion to accept the excellence from previous studies and move toward better research.

The most important reference among previous studies and references cited in the paper is called a ‘key paper’. There are three ways to search for theses key previous studies.

- Digging potatoes method: A method of discovering a key paper most desirably and reviewing the references cited in the paper.
- Dragnet method: A method of intensively searching for previous studies dealing with topics in a specific field, and reviewing the titles of all papers on the website of a specific academic journal.
- Fishing method: A method of searching articles and related materials through a specific single search term, and searching references by entering keywords in the portal search box.

▎Source: 신형덕 (2021). 초보 연구자를 위한 쉽고 확실한 논문 쓰기 전략. 서울: 시그마프레스.

Structure of literature review

step 1. Theoretical and institutional discussions	Theoretical · institutional discussions related to research topics or core concepts covered in research are conducted. • (Theoretical) Main theories that can be discussed as key principles throughout the research; review of leading scholars' discussions • (Institutional) Review of backgrounds, purposes, current status, and case studies in other fields
▼	
step 2. Review of previous studies	Through the review of existing previous studies, the tendency, characteristic, and limitation of similar researches are explored and discussed. • Exploring the characteristics of the research subjects, methods, and contents of previous studies • Discussions on what was not covered in prior studies and what was lacking in terms of research subjects, methods, and contents
▼	
step 3. Concept definition and describing the relationship between variables	• Concept definition: It is a process that redefines the concepts and relationship between concepts to be dealt with in the research in the researcher's language based on theoretical and institutional discussion and review of previous studies • Describing the relationship between variables: Based on theoretical and institutional discussions and previous research reviews, the relationship between variables to be dealt with in the research should be explained, and the researcher should discuss it convincingly.
▼	
step 4. Presenting the differentiation of the research	In terms of research trends, it contributes to new academic discoveries by presenting differentiation from existing previous studies and contributes to presenting more advanced theoretical and political implications. In terms of the characteristics of the subjects, methods, and contents of the research, it overcomes the limitations of previous studies and contributes to improving logical validity by presenting differentiation.

2) Research design

It helps readers understand what to be dealt with in the research by developing a research model suitable for the research purpose and forthcoming research plan. And, it also helps readers understand how to find resolutions to research questions and supports the author to effectively perform the research.

▌Structure of research design

step 1. Developing research model and hypothesis	Research model: The contents to be dealt with in the study are theoretically variableized, structurally schematized, and presented as independent variables, dependent variables, parameters, control variables in detail. • Quantitative research: Schematizing the relationship between variables to be identified through research • Qualitative research: Schematizing the overall flow of the research
▼	
step 2. Conceptualization and systematization	• Conceptualization: Based on the concept definition discussed in the 'Literature Review', the meaning of key concepts and variables covered in the study is redefined, and the subjects of observation and measurement method are specified • Systematization: In the process of data collection and analysis, concepts and variables to be studied are converted from abstract to measurable forms and utilized
▼	
step 3. Presenting research methods	• Quantitative research methods: A research that quantitatively expresses an object and reveals the relationship between specific variables through statistical analysis, and investigates the general tendency in the logic of probability • Qualitative research methods: A research to understand human motives, behaviors, and interactions through direct experience and insight and to grasp the complexity of phenomena as much as possible.
▼	
step 4. Presenting sampling methods	Explain in detail how to perform sampling.

3) Empirical analysis

It is a process of investigating and analyzing actual data related to research, verifying the hypothesis, reviewing the validity, and developing and interpreting the analysis results.

▌Structure of empirical analysis

step 1. Data analysis	• Data collection and coding: Survey and review the samples, analyze demographic and other data characteristics, and set up and execute statistical programs • Applying manipulated variables to actual analysis through quantitative, qualitative, and mixed analysis
▼	
step 2. Reliability and validity test	• Reliability test: Test stability reliability, equivalence reliability, inter-coder reliability, and population representation reliability of the collected data • Validity test: Test content validity, criterion-related validity, and construct validity of the collected data
▼	
step 3. Hypothesis analysis	Frequency analysis and descriptive analysis: It is an analysis method to understand the basic characteristics of the data, such as central tendency and dispersion tendency. • T-test and F-test - T-test: An analysis method that compares the differences between sample means obtained from samples taken independently of two populations to test whether they are statistically significant - F-test: An analysis method that compares the differences among sample means obtained from samples taken independently of three populations to test whether they are statistically significant • Correlation analysis: An analysis method to understand the relationship between two variables • Content analysis: An analysis method that converts qualitative data into quantitative data by coding and summarizing recorded content according to certain criteria
▼	
step 4. Developing and interpreting the analysis results	It presents the execution and completion of the analysis process, presentation of analysis results, interpretation of analysis contents, and discussion.

2.3 Conclusion

It is a process of providing answers to the research questions and presenting the meaning of the research from a theoretical or policy perspective based on an analytical point of view, so drawing again the sympathy of readers for the purpose and importance of the research and enhancing their overall understanding of the research.

Structure of conclusion

step 1. Description of research results	• Describing the purpose of research and research questions briefly • Describing the results of empirical analysis briefly
▼	
step 2. Interpretation of the results	• Analyzing the similarities and differences from previous studies in perspective of the results • Explaining the new findings in research in the context
▼	
step 3. Discussion of the theoretical and policy implications of research	It should provide the theoretical implications of the study. • Deductive research: Discussion on what new findings have been found through this research, which is different from previous studies, and whether this research has contributed to increasing the possibility of generalization of existing theories • Inductive research: Discussion on what new findings have been found through this research, and whether these findings has contributed to forming new theories to explain the certain phenomena It should provide the policy implications of the study. • Discussion on what institutional improvement can be provided based on the results of this research to change society in a desirable direction and realize the public good of society
▼	
step 4. Content and methodological limitations of the research and discussion of the direction of the follow-up research	It should provide the content · methodological limitations of the research. • Content limitations: Discussion on important factors not considered in the research in terms of theory and experience • Methodological limitations: Discussion on the representativeness of the population, the problem of the measurement process of the research data, the use of appropriate methodologies suitable for the research purpose, and errors in the process of data analysis and interpretation It should discuss the direction of the follow-up research. • Presenting the direction of improvement in terms of content and methodology in the follow-up research

3. Data collection and searching academic sources

Data come in many forms depending on researchers' field of specialty and research subject. Data required in research include not only literature data but also those gained through experimentation, observation, field survey, and materials of fact that are gained from interviews with individuals or groups. The first thing you should do in the data collection stage is to examine the reference data related to the research subject. Reference data and literature reviews not only confirm the creativity of the research topic but also provide new ideas relating to the research topic and are useful in the objective analysis of research results. Further, systematically collecting data by setting the direction of the data collection and goal is important. For searching the professional and detailed information about research subjects, you should use journal articles, statistical data, government publications which can be retrieved from the Sookmyung Women's University Library Homepage (https://lib.sookmyung.ac.kr/).

1) Information sources: Primary sources and secondary sources

Information sources are categorized into primary sources and secondary sources according to the producing and processing methods. Primary sources contain new and essential information or information created that has not existed before. In other words, it means the original work. Secondary sources are information sources that summarize or reorganize various primary sources to understand easily and include a bibliographic* database that combines catalog and index in electronic form.

Type of information sources	Contents
Primary sources	• Original works published by original author • Materials searched and evaluated by secondary sources: scholarly journals, proceedings, reports, preprint, theses/dissertations, patent, standard & specification, government publications, monographic publications(books), etc.
Secondary sources	• Materials for effectively searching primary sources, and offering readable form by summarizing and organizing the information contained in primary sources • Retrieval devices that inform users of the existence and location of the information they search: references, index, bibliographies and catalogs, encyclopedia, directory, handbook, review, directory, annotation, etc.

* 'Bibliography' is a systematic description and arrangement of various bibliographies to clearly identify individual materials (book, dissertation, etc.), and 'Bibliographic information' refers to the content and morphological properties of the materials, such as the title of publication, author name, edition, publisher, date of publication, size, appendices, ISBN, price, etc.

2) Searching academic sources

Information retrieval refers to the entire process of searching for information(knowledge) suitable for the researcher's information needs from various information sources. Previously, written materials such as scholarly journals, books, and reports are defined as literature. However, nowadays, the concept of literature is expanding to various media necessary for research because various media such as videos in the database have appeared in a fused form. For example, JoVe Science Education(www.jove.com) is a video journal in medicine and biology and provides videos such as protocol by reflecting the characteristics of the field in which the experimental process is important.

• The Process of information retrieval

In order to search academic sources, it is necessary to have a systematic retrieval strategy and techniques, such as the selection of retrieval keywords and databases. The process of academic sources retrieval in data collection can be carried out as follows.

- Selecting the main research questions and extracting keywords
- Selecting retrieval terms
- Selecting a database for retrieval
- Primary retrieval and reviewing the results of retrieval (primary review of the number of literature searched, related keywords, etc.)
- Based on the results of primary retrieval, determining the retrieval strategy such as modifying, supplementing, and combining retrieval terms
- Selecting databases and keywords for secondary retrieval
- Secondary retrieval: expanding and refining retrieval results
- Selecting literature and exporting/managing bibliographies

- **Search operators**

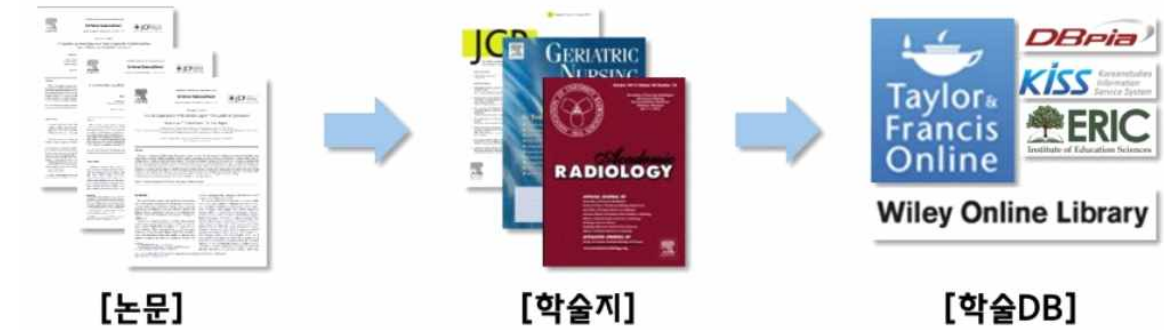
Using Boolean and symbol operators makes researchers effectively search the information related to topic keywords during data collection.

Operator	Category	Contents
Boolean Operators	A AND B	• Retrieving information including both A and B • Depending on the DB, spacing between search terms is sometimes recognized as AND e.g. Travel AND Europe
	A OR B	• Retrieving all information including either A or B e.g. Retrieving Enterprise and Company Business OR Enterprise OR Company OR Corporation
	A NOT B	• Retrieving information including A but not B e.g. Television NOT Cable
	Combination	• Boolean operators usually combine more than two operators as commands e.g. Tobacco AND Cigarettes NOT Weed e.g. (COVID 19 OR Coronavirus) AND Social Distance ※Attention: AND operator overrides OR operator Use parentheses ( ) if you want to perform OR operator first
Symbol Operators	Phrase searching (“ ”)	• Retrieving information if word and order match exactly in a phrase • Phrases including search operators e.g. “Big data”, “Merger and Acquisition”, “Chronic obstructive pulmonary disease” e.g. If you retrieve “Education reports”, “Report education” is not included in the retrieval results
	Wildcard(*)	• Retrieving the words that include at least 0 characters before or after the term • Use it when you want to search, including all the cases where words are written in different forms of derivatives e.g. Child*- including ‘Child’, ‘Children’, ‘Childcare’ e.g. Volunt* - including ‘Volunteer’, ‘Volunteering’, ‘Voluntary’ e.g. *Carbon* - including ‘Hydrocarbon’, ‘Polycarbonate’

Source: Seoul National University Library Homepage <https://lib.snu.ac.kr/>

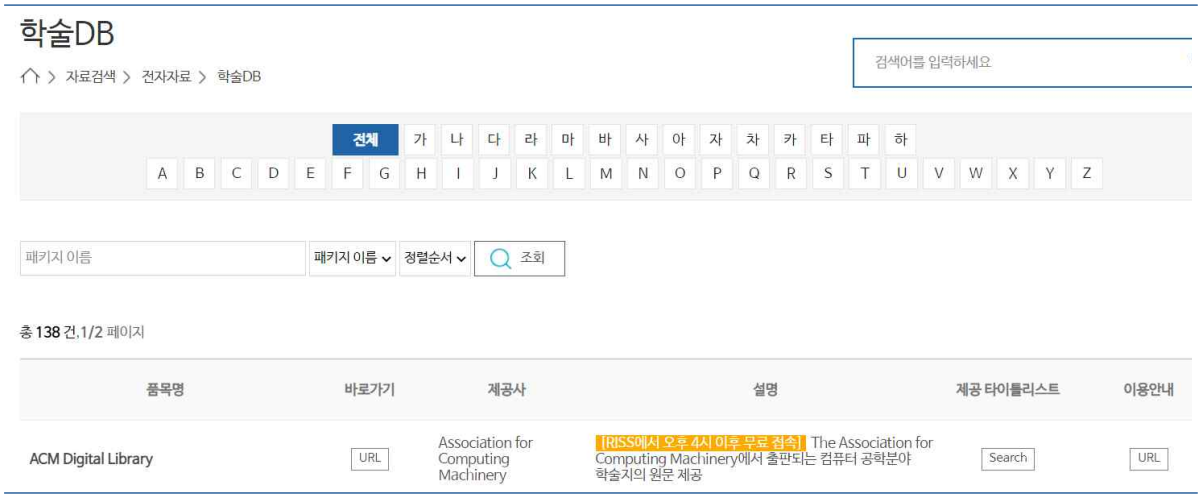
• Academic databases

Database(DB) refers to a collection of logically related data as needed and stored in a certain form, and academic databases provide articles, reviews, reports, and dissertations on all or specific disciplines. These academic databases are categorized with ‘Full-text DB’ that contains the complete text of articles and ‘Bibliographic and citation index database’ that contains the bibliographies and citation information of articles. Most DB is called ‘Web DB’ because it is available on the Internet nowadays.



▌Source: Central Library of Chung-Ang University homepage <https://researchguide.cau.ac.kr/searching/database>

Academic databases are available on Sookmyung Women’s University website: [Search] > [E-Materials] > [Databases]. Academic databases can be used immediately on-campus and can be used after login in off-campus.



▌Source: Sookmyung Women's University Library homepage
<https://lib.sookmyung.ac.kr/search/ers/ersPackList?spt=007&mId=101030200>

• Bibliographic and citation index databases

Citation index refers to indexing references written for searching for articles, i.e., citing papers, into a database. There are Web of Science and Scopus of Elsevier as scholar citation indexes.

Database(Provider)	Contents
Web of Science(WoS) **(Clarivatae Analytics)**	• Indexing journal from 1950s • Providing bibliographies and citation information of articles in journals that have been recognized worldwide in sciences, social sciences, arts, humanities etc. • Providing SCI(Science Citation Index), SCIE(Science Citation Index Expanded), SSCI(Social Science Citation Index), and A&HCI(Arts & Humanities Citation Index)
Scopus **(Elsevier)**	• A citation index is applied to data that was published after 1995 and provide articles, patent, and web information contained in a scholarly journal at the same time. • The largest web DB and citation index database in the world, covering life sciences, social sciences, humanities etc.

▎Source: 한국과학기술정보연구원(KISTI) (2012). 지식정보활용 백문백답. 서울: 한국과학기술정보연구원.

Clarivatae Analytics published the Journal Citation Report(JCR), which calculated the Impact Factor(IF) by analyzing SCI's citation data from 1973. JCR is a database that provides the ranking of scholarly journals for each discipline using citation information from SCIE, SSCI, and A&HCI of WoS.

The IF provided by JCR is an index to measure the importance and influence of scholarly journals and is termed 'Impact Factor' for the first time in 1963. The IF is only available for the journals indexed on SCIE and SSCI and is calculated using the number of articles published in two preceding years and the number of citations received in that year. The IF is the most widely used indicator of scholarly journals'

influence and can be an indicator of relative importance within the disciplines of journals.

4. Evaluation of collected data

The appropriateness of the collected data for a paper topic should be well evaluated. When inappropriate data are included in a paper owing to the incorrect assessment of the data collected, time is wasted and the value of the paper decreases. Accordingly, data evaluation should be carried out continuously both when collecting, organizing, and recording information obtained from reference materials and literature reviews and that collected through experimentation, observation, field surveys, and interviews.

Common evaluation criteria for various reference sources(materials) are 1) format(physical characteristics of a printed book, the efficiency of electronic materials retrieval, etc.), 2) authority of publishers, 3) purpose and scope of publishing, 4) up-to-dateness, 5) handling(accuracy, objectivity, and format of the contents), 6) arrangement(subject arrangement, index, etc.), 7) relationship with other similar works, 8) cost. In particular, since databases accessible on the web are very diverse, important evaluation factors to be considered when selecting databases are as follows.

Evaluation factors	Contents
Authority and reliability	• Consider the authority and reliability of the database, such as the specialty and reputation of the database provider and the quality of the information sources provided by the database provider.
Range	• Consider whether containing information suitable for the subject, whether specifying the range of information contained in database, and the range of information such as date of publication, place of publication, etc.
Accuracy	• It is about whether the data representation is accurate and has reliable standards and you should evaluate the reliability of data, the accuracy of data representation, and the accuracy of data description (spelling errors, omissions, etc.).
Integrity	• Examine whether the contents of records constituting the database completely and accurately represent the important properties of the raw materials and evaluate the suitability of the record structure (the completeness of the field structure of the record), the completeness of data description, and the uniqueness of the record (non-redundancy).
Up-to-dateness	• Examine how many records are contained for recently published materials, such as the extent of the recent records.
Consistency	• Examine whether the structure of records and representation of data, such as the consistency of records structure, the consistency of records representation, the unity of records description, comply with cataloging rules and conform to consistent rules.

▎Source: 한국과학기술정보연구원(KISTI) (2012). 지식정보활용 백문백답. 서울: 한국과학기술정보연구원.

5. Sources management: Reference Management Software

Reference management software is software that organizes the references cited or referred from online materials, databases, and websites, and helps collect · store · organize the various information such as PDFs, images, and files. RefWorks, EndNote, and Zotero are the most representative reference management software. RefWorks is a reference management software that collects and manages bibliographic citations(references) and supports the automatic production of references in accordance with the bibliographic description principles of academic societies and journals. It can be used on Sookmyung Women's University Library website: [Research] > [Support for Thesis Writing] > [Reference management](only available in Korean).

▎Sources: Sookmyung Women's University Library homepage <https://lib.sookmyung.ac.kr/local/html/refworks>

In addition, EndNote and Zotero are widely used as reference management software. EndNote is a tool that can store and manage both information about scholarly

materials(articles, books, proceedings, etc.) and full-text in a program, and can automatically produce citations and references following reference format(ACS, APA style, etc.). Zotero is an open-source reference management software for managing bibliographies and related research materials, which can automatically produce quotes, footnotes, and bibliographies of the paper.

Ⅴ. Considerations on writing theses and dissertations

1. Guidelines for Citation and references

1) Literatures cited

In the paper, citation is the act of justifying and proving the researcher's arguments or theories by bringing other people's writings or ideas. The citation should be used only when it is necessary for materials that has been officially verified or acknowledged its authority, and researchers should clarify the relationship between the argued context and cited materials.

In the case of citation, the cited materials should be presented as it is, and the source of the cited materials should be revealed. There are two types of citation: 'Quotation' that uses other researchers' writings as they are and 'Citation' that summarizes and paraphrases the content and meaning of other researchers' writings.

Category	Contents
Quotation	• Short quotation within 3 lines: make double quotation marks and indicate the sources e.g. "Even smart, educated, emotionally stable adults believe superstitions that they recognize are not rational," as exemplified by the existence of people who knock on wood for good luck**(Risen, 2016, p. 202)**. • Quoting more than 3 lines: mark the quoted paragraph and indicate the source by changing the lines, leaving left and right margins, or changing the font and font size

Category	Contents
Citation	• Mark clearly the author's idea and point such as 'according to ~, on the basis of ~, as summarized by ~, research has shown that ~ ' and indicate the sources. e.g. **According to** Gronlund and Linn**(1990)** … e.g. … that it will someday be possible to travel to other galaxies or power a car on solar energy**(Black et al., 2018)**. e.g. Play therapists can experience many symptoms of impaired wellness, including emotional exhaustion of or reduced ability to empathize with others**(Elwood et al., 2011; Figley, 2002)**, … • Although indirect citation is used, make quotation marks(" ") and indicate the sources, if unique or important expressions in the original sources are used as they are.
Secondary referencing	• Secondary referencing is not desirable in academic writings, but when it is inevitable to cite secondary sources that another author already cited, mark '재인용' or 'Quoted in', 'as cited in' on the source citation. e.g. … as was found (Miller, 1953**: as cited in** Agrios, 2005) • When citing secondary sources, you should confirm whether the quote is consistent with the original point and intention and whether the interpretation is appropriate, and can bring a changed perspective as it is.

▎Source: 한국과학기술정보연구원(KISTI) (2012). 지식정보활용 백문백답. 서울: 한국과학기술정보연구원.

The methods of indicating the sources of cited literature are 1) presenting in-text citations or notes and 2) presenting all materials cited in the form of a reference later in the paper.

Notes are intended to supplement the content of the text and to reveal the source of the citation. Therefore, if notes and content are not relevant, it is not necessary to write a note, and it is only used if it is helpful for discussion. Notes are categorized with 'Reference notes' and 'Content notes' according to the contents and purposes, and 'Footnotes'와 'Endnotes' according to the position. However, the format of notes is varied with study fields or distinct characteristics, so the researcher should comply with

the note format of each study field. The types of notes can be divided by the functions and positions as follows.

Category	Contents
Functions	• Reference notes: quote the cited or referred content and write the author name and publication date of cited sources • Content notes: a supplementary explanation of the content (e.g. special terms or formulas)
Position	• Footnotes: mark the footnote callout number on the body, and write bibliographies of cited sources that match with callouts at the bottom of the page • In-text citation: write the ‘author name, publication date, page number’ in parentheses on the body • Endnotes: mark the callout number on the body, and write bibliographies of cited sources that match with callouts with footnotes and references at the end of the paper

2) References

References only present the literature that is cited in the body, and cited literature should be included in the reference list. Since the format of reference is varied with the study field and disciplines, scholarly institutions, or journals, the researcher should comply with the format of each study field. The representative reference formats by disciplines are as follows, but in this chapter, the APA(7th) style, which is commonly used, is summarized.

Category	Contents
Humanities	• MLA (Modern Language Association) style - formerly *Modern Language Association Handbook for Writers of Research Papers* - Used in the Humanities and Linguistics
Social sciences/ Natural sciences	• APA (American Psychological Association) style - Publication Manual of the American Psychological Association - Used in the Social sciences and Natural sciences
Literature/ History/Arts	• CMS (The Chicago Manual of Style) style - Originated from one-page criteria written to systematize formats and systems in publishing books and articles by Chicago University Press - Used in the Humanities and Arts, Social sciences, and Natural sciences
Chemistry	• ACS (American Chemical Society) style - American Chemical Society Guide to Scholarly Communication - Used in the Natural sciences such as Chemistry - Numbering in parentheses or superscripts in order of quotation within the body
Engineering	• IEEE (Institute of Electrical and Electronics Engineers) style - Guidelines based on Chicago Style - Used in engineering fields such as electronics, telecommunications, computers, and information technology - Numbering in square brackets([ ]) in order of quotation within the body, and organizing the references list in order of the number at the end of the paper

After describing the citation for the cited sources within the body, the references will provide complete bibliographic information such as author name, title, publisher, and publication date. General guidelines for references description and guidelines for creating references according to a type of sources are as follows.

• General guidelines for creating the references

The reference list should divide domestic literature and international literature, and be arranged in order of Korean literature, Asian literature, and western literature. Arrange entries in alphabetical order by the surname of the author, and arrange the same author's multiple works by year of publication. DOI(Digital Object Identifier) is a persistent identifier assigned to digital objects. And it makes the search easier even if the address or location of digital objects changes, since containing information about data such as digital objects ownership and provider.

Category	Contents
Basic format	• **Book** Author, A. A., & Author, B. B. (Year). *Title of the book.* (Edition). Publisher. (Omitting publication place from APA 7th ed.) • **Journal Article** Author, A. A., & Author, B. B. (Year). Title of the article. *Title of the Journal*, *Volume*(Issue), Page range. DOI or URL
Author	• Author name: In case of author name is Korean, Chinese, and Japanese, write their name as they are. In case of author name is western, write in the order of surname, a comma(,), and first name, and write the initials of names other than surname(first name, middle name). e.g. Achterberg, J. (1985). *Imagery in healing*. Shambhala Publications. e.g. 이수상 (2008). 디지털도서관운영론. 서울: 한국도서관협회. • If there are more than two authors, write all regardless of the number of co-author, and separate each author by a comma(,). In case of western author, use a comma and an ampersand(, &) before the final author's name 예: Baider, L., Uziely, B., & Kaplan De-Nour, A. (1994). Progressive muscle relaxation and guided imagery in cancer patients. *General Hospital Psychiatry*, *16*(5), 340-347. https://doi.org/10.1016/0163-8343(94)90021-3 예: 전경선, 이지수 (2022). 전자책 서비스 중심의 병영도서관 활성화 방안. 한국비블리아학회지, 33(3), 295-324. http://dx.doi.org/10.14699/kbiblia.2022.33.3.295

• Basic principles of reference list entries

Category	Content
Books/ Translations	• **Author, A. A. (Year of publication). *Title of book.* Publisher. DOI or URL** 예: Brown, L. S. (2018). *Feminist therapy.* (2nd ed.). American Psychological Association. https://doi.org/10.1037/0000092-000 • **(Books) Author (Year of publication). Title of book. (Edition). Place of publication: Publisher.** 예: 정필모 (2011). 문헌정보학원론. (개정 5판). 서울: 한국학술정보. • **(Translations) Original author (Year of publication). *Title of work in original language* (Translator). Place of publication: Publisher. (Original work published year)** 예: Freud, S. (2010). *The interpretation of dreams: The complete and definitive text* (J. Strachey, Ed. &Trans.). Basic Books. (Original work published 1900) 예: 미국심리학회 (2013). APA 논문작성법 (강진령 역). 서울: 학지사. (원서출판 2010). • **(Secondary referencing) write bibliographic information of primary source and use the words "as cited in: " before the secondary source** 예: Barden, B. R. (1937). Book Numbers: A Manual for Students with a Basic Code Rules, 9. 재인용: 김명옥 (1986). 자료분류법. 서울: 구미무역, 223.
Periodicals	• **Author, A. A., & Author, B. B. (Year). Title of the article. *Title of the Journal, Volume*(Issue), Page range. https://doi.org/xxxxx** 예: Ball, T. M., Shapiro, D. E., Monheim, C. J., & Weydert, J. A. (2003). A pilot study of the use of guided imagery for the treatment of recurrent abdominal pain in children. *Clinical Pediatrics, 42*(6), 527–532. https://doi.org/10.1177/000992280304200607 예: 장윤금, 전경선, 이혜영, 이지수 (2018). 병영도서관 이용 및 독서 활성화 방안 연구. 한국도서관정보학회지, 49(3), 241-261. https://doi.org/10.16981/kliss.49.3.201809.241

Category	Content
Theses and Dissertations	• **Author, A. A. (Year of publication). *Title of dissertation* [Doctoral dissertation or Master's thesis, Name of University]. Database Name. URL** 예: Hutcheson, V. H. (2012). *Dealing with dual differences; Social coping strategies of gifted and lesbian, gay, bisexual, transgender, and queer adolescents* [Master's thesis, The College of William &Mary]. William &Mary Digital Archive. https://digitalarchive.wm.edu/bitstream/handle/10288/16594/HutchesonVirginia2012.pdf 예: 전경선 (2018). 디지털 아카이브 구축을 위한 공개 소프트웨어 사용성 평가. 박사학위논문. 숙명여자대학교 대학원 문헌정보학과.
Electronic material/ Web resources	• **Online News/Magazine Article** **- Author, A. A. (Year, Month Date). Title of the article. *Title of the online newspaper or publication.* URL** 예: Rogers, O. (2021, July 9). Why naming race is necessary to undo racism. *Psychology Today.* https://www.psychologytoday.com/us/blog/who-am-i-who-are-we/202107/why-naming-race-is-necessary-undo-racism • **Web Page** **- Author, A. A. (Year, Month Date). *Title of page or section.* Source. URL** 예: Centers for Disease Control and Prevention. (n.d.). *Preventing HPV-associated cancers.* https://www.cdc.gov/cancer/hpv/basic_info/prevention.htm/ ※ (n.d.): no date

Category	Content
Other resources	• **Audiovisual Media** **- Director, D. D. (Director). (Year). *Title of work* [Description]. Production Company. URL** 예: Fosha, D. (Guest Expert), & Levenson, H. (Host). (2017). *Accelerated experiential dynamic psychotherapy (AEDP) supervision* [Film; educational DVD]. American Psychological Association. https://www.apa.org/pubs/videos/4310958.aspx 예: Jackson, P. (Director). (2001). *The lord of the rings: The fellowship of the ring* [Film; four-disc special extended ed. on DVD]. WingNut Films; The Saul Zaentz Company. 예: 오성윤 (감독). (2011). 마당을 나온 암탉 [비디오녹화자료]. 케이미디어. • **Government publication** **- Author, A. A. (Date of publication). *Title of work* (Report No. xxx). Publisher. DOI or URL** 예: National Cancer Institute. (2018). *Facing forward: Life after cancer treatment* (NIH Publication No. 18-2424). U.S. Department of Health and Human Services, National Institutes of Health. https://www.cancer.gov/publications/patient-education/life-after-treatment.pdf 예: 홍수동 (1999). 한국의 언론인 (조사분석 99-03). 한국언론재단. • **Proceedings** **- Author, A. A. (Date of publication). *Title of contribution* [Type of contribution]. Conference Name, Location. DOI or URL** 예: Maddox, S., Hurling, J., Stewart, E., & Edwards, A. (2016, March 30-April 2). *If mama ain't happy, nobody's happy: The effect of parental depression on mood dysregulation in children* [Paper presentation]. Southeastern Psychological Association 62nd Annual Meeting, New Orleans, LA, United States.

2. Scholarly writing style

Scholarly articles should be objectively and concisely presented to clearly deliver the meaning, and systematically organized by logical description. The expression of the sentence should be accurately and consistently stated, and literary or conclusive expressions should be avoided. You should refer following writing styles to concisely and objectively present ideas.

Category	Content
Sentence	• Close the sentence with '~다.' • '~습니다', '~어요' is not suitable for scholarly writing. e.g. 최근 다문화에 관한 관심이 높아졌다. (o) 최근 다문화에 관한 관심이 높아졌어요. (x) 최근 다문화에 관한 관심이 높아졌습니다. (x)
Contractions and Colloquialisms	• Avoid using colloquialisms. e.g. 그건 (x), 그것은 (o) e.g. can't (x), cannot (o) e.g. 학교에선 (x), 학교에서는 (o) e.g. to report (x), to write up (o) e.g. 근데 (x), 그런데 (o) e.g. gonna (x), going to (o)
Honorific	• Honorific is not suitable for scholarly writing. 예: 최승호(2015)에서는~라고 언급하였다. (o) 최승호 교수님(2015)께서 ~라고 말씀하셨다. (x)
Negative	• Scholarly writing generally uses long negative rather than short negative. 예: 작정 안 했다. (x), 작정하지 않았다. (o) 예: 포함 못했다. (x), 포함하지 못했다. (o) 예: 발견 못 했다. (x), 발견하지 못했다. (o)
First-person pronouns ('나')	• Since using first-person pronouns is easy to give the impression that the content is subjective in scholarly writing, use 'This research is…', 'The result of this study…' ('이 글', '본 논문', '본고' in Korean). e.g. 이 글에서는 ~에 대해 알아보고자 한다. (o), 나는 ~에 대해 알아보고자 한다. (x) e.g. The purpose of this research is~ (o), I want to research~ (x)

Knowing the expressions frequently used in the paper makes it convenient to read or write, and can accurately write the sentences.

Category	Content
Purpose of research	• This paper introduces/inspects/explores/investigates ~ • The aim of our research is to explore ~ • The purpose of this research is to ~
Necessity of research	• The field has met with great success in many problems ~ • A new approach is therefore needed for ~
Background of research (recent focus)	• This phenomenon has been widely observed. • … is widely accepted as ~
Problem definition	• A challenging problem which arises in this domain is ~ • The main problem is that ~ • This makes up for the problem of ~
Limitations of prior research	• Previous studies reported by … cannot be considered conclusive as ~ • Only a few studies in literature demonstrate ~ • Although there are several studies consistent with …, no study has till date examined ~
Literature review	• Earlier works primarily focused on ~ • According to the prior studies ~ • Some researchers have sought to ~
Theoretical background	• In the present work, we extend our previous work by incorporating extra ~ • We aimed to expand on the results of a previous study in which ~
Methods of research	• ~This experimental design was employed because ~ • This study uses a qualitative case study approach to investigate ~ • This proceeds in two stages: ~

Category	Content
Subject of research	• The analyzed data included: ~ • Participants in the first data collection were ~
Process of research	• The first section of this paper will examine ~ • The essay has been organised in the following way. • This paper has been divided into four parts. The first part deals with ~
Results of research	• We found that ~ • The findings suggest that ~ • The data shows that ~
Significance and advantages of research	• This paper contributes to the very timely discussion of ~ • It is especially notable that ~
Limitation of research	• The limitations of the present studies naturally include ~ • Regarding the limitations of …, it could be argued that ~ • Although widely accepted, it suffers from some limitations due to ~
Future work	• Future research on … might extend the explanations of ~ • In future work, investigating ~ might prove important. • It will be important that future research investigate ~

▎Source 이윤진 (2021). 논문작성연습. 한국문화사.

• Number, unit format, and abbreviation

For quantity used in the paper, Arabic numbers should be used, and International System of Units (SI) or CGS symbols should be used. For unit and predicate abbreviations, follow the method recommended by each field of study or the professional academic organization belonging to the field of study. In other cases, explain the unit when it first appears in the main text.

• Tables and statistical tables

Tables are used to present statistical data or research results as well as various similar facts presented in the paper concisely and in clearly organized manner.

As theses and/or dissertations report research results, results should be well organized so that readers can sufficiently understand the content. Thus, when you can sufficiently convey the research content with only written descriptions, you do not need to use a table. However, when you need to present data or results that need to be described over several pages when expressed in writing and are difficult to be expressed clearly, the use of tables is essential. When research data or results are presented in tables, a clearer and more concise paper can be drafted, particularly in the natural sciences. Therefore, if you use tables and figures adequately when writing your paper, you can omit unnecessary sentences and increase the understanding of readers.

Category	Contents
Basic requirement	• Table margins are based on 130% by default for Hangul(한글) below. The font size for table titles and content should be 10point. - For editing convenience, margins and font sizes may be adjusted • The table title should be bolded.

Category	Contents
Location of table	• Tables should be presented in a separate page following the page when the table is mentioned in the main text. • When creating a table, it should be centered based on the left and right margin (not based on the top and bottom margin). The table should be located at the very top except, but within the page margins. However, depending on the case, tables may appear along with the main text on the same page immediately after the table is mentioned. • When the entire table cannot be added on the page in which it is mentioned, owing to being located at the bottom of page, you may write a summary of the main text in the end of that page to avoid leaving a large space on the page, and then add the table at the beginning of the next page. • When presenting a table that takes up an entire page, write a summary of the main text to the end of that page after the mention of the table in the paper, and then add the table on the next page.
Processing of exceedingly wide tables	• It is fine to tilt wide tables vertically. - The table title should be on the left side of the paper, that is, the side that is stitched when binding the paper. - When a table is handled vertically, the page number should be shown at the original position. • If the table cannot be added even when tilted vertically, you may use two pages to accommodate the table: the left and right pages that face each other. - If the table cannot be added even when tilted vertically, you may use two pages to accommodate the table: the left and right pages that face each other. • When the table size is so large that it cannot be handled by the aforementioned two methods, you should use a large sheet and fold it such that it aligns with the standard paper size.

Category	Contents
Processing of exceedingly long tables	• Long tables should be divided into several pages. • The table number and title should be on the first page of the divided table. Indicate that the table continues to the next page by inserting the phrase ‘to be continued’ in parentheses on the right end of the last line on the first page.
Table number	• Table numbers shown in the main text should be marked in Arabic in the order they are mentioned in the main text. • In natural sciences papers, tables are generally in English even when the paper is written in Korean. In unavoidable cases, tables may be created in Korean. - When written in English, you should mark title numbers as <Table 1>, <Table 2>, … and <Table 1>, <Table 2>, … . - When written in Korean, you should mark title numbers as <표 1>, <표 2>, … . - The table title must start from the top left line of the table.
Table title	• Table titles should be located on top of the table. • The table title concisely presents the content of the table in one sentence one space after the period following the table number. Explanations should be written on the bottom part of the table. • When a table’s title is longer than the table’s width, write in more than two lines such that the text reaches the end of the right side of the table; begin a new line according to the title point of the upper line. - In this case, it is fine if the line spacing is narrower than that of the main text. - Do not put a period at the end of the title. When the title is more than two lines, avoid word breaks on different lines whether in English or Korean. E. g. <Table 1> Korean abstract of paper in Korean E. g. <Table 2> When a table’s title is longer than its width, you should draft it in more than two lines and it must reach the end of the right side of the table; check the alignment with the title point on the upper line.

Category	Contents
Table borders	• Have one line of space between the table title and table. • When creating a table, use only horizontal lines, not vertical ones. However, depending on the field of study, vertical lines may be used. • The thickness of horizontal lines on the top and bottom of the table and the line that divides items and content should be 1.5 pt.; the rest should be 0.5 point. - When a table runs over several pages, the bottom line of the table should be drawn only on the last page.
Table explanation	• Table explanation: - When a table is cited from literature, its source should be stated as a footnote. - Simple explanations about the table can be included (e.g., research method) to help readers understand the drawing of research results illustrated by the table even if they do not read the main text. - Abbreviations or symbols used in the table must be explained in footnotes. • When adding a footnote to a table, use 1), 2), 3), ⋯ as superscript and continuously write without a space between the superscript and explanation. • For statistical significance (e.g., $p<0.05$, $p<0.01$, and $p<0.001$), mark with *, **, ***; for multiple range test, use a, b, c, d, and display the information at the bottom. • Use a period at the end of explanatory footnotes.
Page indication	• Link the page that contains a table only to the page of the main text and indicate the page number. When you create a table by using facing pages (for wide tables), indicate the page number on both pages where the table is. • Additionally, when the side in which the table is included is folded (for wide or long tables), the page number should be inserted at the center of the folded surface.

• Figure

As figures concisely present the research results, similar to tables, they are important in helping readers understand the findings. However, when presenting research results in figures, ensure that no information is duplicated in tables.

The various types of figures used in a research paper include graphs, photos, maps, diagrams, charts, and mimetic diagrams. Each has a writing method that requires special attention. However, in this chapter, only the general principles necessary for writing theses and/or dissertations are explained.

Category	Contents
Figure location	• It is ideal to place one figure per page on the page after the figure is mentioned in the main text. • Depending on the paper, all figures (especially photos) may be placed after the "Results." • Particularly, when inserting artwork (for papers in the arts programs), figures may be inserted after the appendices.
Making figures	• When research data or results are photographed directly, they may be enlarged or reduced in consideration of the paper size. • When research data or results are presented in a graph, map, diagram, chart, or mimetic diagram using computer programs developed to draw pictures or when black ink for drawing should be used on tracing paper, which is used for drawing, you should draw by hand and use as is or photograph and use by printing to the appropriate size. • When inserting a figure on a research paper, the use of diverse colors is prohibited, except in the case of photographs or images that need to be in color. For differentiation or emphasis of parts in a figure, you may use various types of line or shades. • When drawing a broken linear chart, you should make a broken point in round, triangular, or rectangular symbols by always using the marker in data series format.

Category	Contents
Figure numbers	• Throughout the paper, figures should be given separate numbers from tables and marked in Arabic in the order they appear in the main text. • In the natural sciences, figure explanations must be in English, indicated as <Figure 1>, <Figure 2>, ⋯; when the figure number is in Korean, depending on the research field, it should be marked in English as well (e.g., <Figure 1>, <Figure 2>, ⋯). • The figure number, title, and explanation should be stated immediately at the bottom of the figure. The figure number should start from the bottom left side.
Axis, scale, and legend marks	• Axis titles - The axis title should be placed on the left side and the bottom of each scale unit of the horizontal and vertical axes. - The vertical axis title may be written vertically but should start from the bottom. • Scales - The marking of the scale of the horizontal and vertical axes should not be too dense or broad. The scale mark should not be drawn in the chart or graph. - The scale marking should be on the outer side of the axis. When the content presented by the horizontal or vertical axis occupies two units, it should be presented in two units by using both vertical axis on left and right. - For the horizontal axis as well, units should be indicated by using the bottom and top sides, respectively. - When the content or unit to be presented is more than three, both sides should be shown, and then the other scale should be indicated on the left side and bottom side first. • Units - The unit of axis must be indicated. - The unit of axis must be noted in parentheses following each axis title. • Legends - When legend marking is needed, indicate them as necessary at the bottom of the table. However, they may be positioned on the right side depending on the shape of the figure.

Category	Contents
Processing of figures that are larger than the paper size of the thesis/dissertation	• Figures that exceed the paper size may be used, but they must be reduced. • For large maps or figures whose content is difficult to identify when reduced, printing may be done using large sheets that must then be folded in accordance with the paper's standard sizes.
Figure titles	• Figure titles are placed in the same line as the figure number, beginning one space after the period following the figure number. Endeavor to use one concise sentence that can express the content of figure well. • When the figure title does not finish at the end of the right side because it is long, it should be presented in more than two lines, and each line should be aligned with the left start of the first line. Unlike the case of table titles, figure titles must be followed by a period. E. G. <Figure 3> Korean abstract of paper in Korean E. G. <Figure 4> When the figure's title does not finish at the end of the right side because it is long, it should be presented in more than two lines, and each line should be aligned with the left start of the first line.
Figure explanations	• Figure explanations are included to describe concisely the contents mentioned in the main text, similar to table explanations. These are essential in natural sciences papers as a means to help readers understand the figures without having to reread the content of the main text. • Figure explanations should be continuously written without changing lines by using the same number used in the figure title. When a new line is needed in the case of lengthy explanations, it should continue with a line starting from the left side of the title. • In the case of microscope images, the method for sample dyeing and magnification should be written in parentheses at the end of the figure explanation. When the method of sample dyeing is stated in the figure explanation, only the magnification should be stated in parentheses.

Category	Contents
Page numbers	• The page on which a figure is present should be presented continuously on the side of the main text. The page number should be indicated on the same page when the figure explanation is stated on the facing page. The back of the page should not have a page number inserted. • When the page surface on which the figure is included as a folded sheet, the page number should be indicated at the center below the folded sheet.

References

김태수 편 (2010). 논문작성법. 제5판. 서울: 연세대학교 출판부.

고려대학교 출판부 (2007). 새로운 논문작성법. 서울: 고려대학교출판문화원.

교육부훈령 '연구윤리 확보를 위한 지침' (제12조 제1항)

노경섭, 김정욱 (2021). 제대로 작성하는 논문. 서울: 한빛아카데미.

노영희, 박양하 (2022). 논문자료 탐색과 논문작성법. 서울: 청람.

논문작성법교재편찬위원회 (2003). 논문작성법(자연과학편). 서울: 건국대학교 출판부.

명현국, 홍희기 (2007). 이공계 연구자를 위한 영어논문작성법. 서울: 문운당.

박성민, 김선아 (2019). 인문사회과학자를 위한 논문 작성 Handbook. 서울: 성균관대학교 출판부.

박창원, 김성원, 정연경 (2012). 논문작성법. 서울: 이화여자대학교 출판부.

성태제, 시기자 (2011). 연구방법론. 서울: 학지사.

신형덕 (2021). (초보 연구자를 위한) 쉽고 확실한 논문 쓰기 전략. 서울: 시그마프레스.

연세대학교연구처 (2006). 새논문작성법. 서울: 연세대학교 출판부.

이윤진 (2021). 논문 작성 연습. 서울: 한국문화사.

임인재, 김신영 (2008). (교육심리사회연구를 위한) 논문작성법. 서울: 서울대학교출판문화원.

정병기 (2008). 사회과학 논문작성법. 서울: 서울대학교출판문화원.

한국과학기술정보연구원(KISTI) (2012). 지식정보활용 백문백답. 서울: 한국과학기술정보연구원.

American Psychological Association. (2020). *Publication manual of the American Psychological Association: the official guide to APA style.* (7th ed.). American Psychological Association

Cone, J. D., & Foster, S. L. (2004). 학위논문작성법 (정옥분, 임정하 옮김). 서울: 시그마프레스.

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