GUIDEBOOK UNDERGRADUATE PROPOSAL AND THESIS 2023

BACHELOR IN NUTRITION & HEALTH

FACULTY OF MEDICINE, PUBLIC HEALTH AND NURSING
UNIVERSITAS GADJAH MADA

Guidebook Undergraduate Proposal and Thesis 2023
Bachelor in Nutrition & Health

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Preface

Praise and gratitude be to Allah SWT for His blessings, mercy, and grace, which have enabled the compilation of this guidebook for the preparation of proposals and theses for students of the Bachelor in Nutrition and Health Study Program, Faculty of Medicine, Public Health, and Nursing, Gadjah Mada University (FK-KMK UGM). This book is a revision of the theiss writing guide that was published in the year 2020. The aim of this book is to provide information regarding regulations and procedures for thesis preparation, starting from proposal drafting, the handling of ethical approval consent letters, technical writing guidelines, writing structure, explanations for each chapter component, and the dissemination of research results, including related authorsip regulations.

It is hoped that with this book, we can achieve a shared understanding of thesis writing, both among students and thesis advisors and examiners. Furthermore, it also includes attachments detailing the process of thesis composition, examples of table of contents and plagiarism disavowal letters, as well as various procedural manuals ranging from thesis title submission, Turnitin anti-plagiarism checking procedures, to the flowchart of registration and conduct of the thesis defense.

May this guidebook be able to provide a comprehensive overview of thesis preparation in the Bachelor in Nutrition and Health Study Program, FK-KMK UGM, in order to facilitate students in composing their theses according to the established standard.

Regard

Head of Study Program

Table of Contents

1. Introduction

Undergraduate thesis is one type of final project (TA) in the form of scientific work and is composed according to scientific principles in Indonesian language under the guidance of a supervisor. The objective is to fulfill predeterminated quality criteria according to their respective fields of study. The completion of an undergraduate thesis is a requirement to complete the learning process in the Bachelor in Nutrition and Health FK-KMK UGM. The thesis referred to this this guidline also encompasses dissemination in the form of publication manuscripts, manuscripts intented for journal submission, or draft abstracts for scientific conference submission. The thesis will also become an asset in the UGM library collection.

The proposal and thesis guidline provided here is an revised version of the 2020 guide. Revision needs to be done due to policy changes in various sections that affect the formatting and technical aspects of thesis preparation and submission. This guide was formulated by the Student Affairs Working Group Team and reviewed by the Nutrition and Health Study Program. Its publication aims to provide guidance for students undertaking thesis writing. Students are required to utilize this 2023 thesis preparation guidebook as their reference for thesis writing.

2. Regulations of Thesis Writing

A. Requirements for Enrolling in the Thesis Course

Students intending to enroll in the thesis course are required to fulfill the following conditions :

1) Students must have completed a minimum of 120 cumulative credit units (SKS) with a minimun GPA of 2,0
2) Achieving **minimum grade of C** in the Research Methodology
3) Obtain the Academic Supervisor approval when submitting the online Study Plan in Simaster

B. Thesis Supervisor

1) Thesis Supervisor is the lecturer in the Nutrition and Health Study Program
2) Thesis Supervisor is determined by the Academic Department based on the area of interest of the lecturer.
3) Thesis supervisor consists of 2 Individuals, namely Supervisor I (main supervisor) and Supervisor II (co-supervisor).
4) The thesis main supervisor must be a lecturer with a minimum functional position of a Lektor and possesing a minimum educational qualification of a Master's degree (S2), **or** has a functional position of Expert Assistant with a minimum educational qualification of a Doctoral degree (S3).
5) The thesis co-supervisor must be a lecturer with a minimum functional position of Expert Assistant and possesses a minimum educational qualification of a Master's degree (S2).
6) Information regarding the procedure for changing thesis supervisor can be found in **Appendix 4, section C.**

C. Thesis Examination Board

1) Thesis Examination Board consists of 3 members: One supervisor I, one supervisor II, and one non-supervisor.
2) Examiners who are not supervisors can be selected from outside the Department or Study Program (home base), including practioners.
3) The qualification requirement for thesis examiners is that the person must be teaching personnels with at least a Master's degree (S2).
4) The procedure for replacing thesis supervisors can be referred to in **Appendix 4, section D**

D. Proposal

1) At the end of research methodology course, Students are required to submit 2-3 research proposal title plans.
2) Conducting experimental research involving human subjects is only allowed upon obtaining approval from the Head of the Nutrition and Health Study Program and the Ethics Commitee of FK-KMK UGM.
3) The academic department, together with the Undergraduate study program manager, will evaluate the research titles and determine the thesis supervisors. If there is a change in the thesis title, the selection of a new supervisor will be determined subsequently.
4) The academic department will inform the students about the allocation of their thesis supervisor. Students are then encouraged to initiate coordination with supervisor I and II regarding the process of formulating the thesis proposal.
5) Before submitting the registration for thesis defense, students **must have** a **minimum of 4 consultations** with their respective supervisor I and supervisor II regarding the progress of their thesis proposal. The consultation process should be documented digitally in Simaster.
6) The proposal that has been approved by supervisor I and supervisor II should be promptly submitted to the academic department for scheduling the thesis proposal seminar. In addition, students **must** ensure they have fulfilled the specified requirements, such as providing evidence of the consultation activities documented in Simaster.
7) The proposal seminar must **have a minimum attendance of 5 other students** and supervisor I. If there are fewer than 5 students present, the seminar cannot be conducted unless both supervisor give their approval.
8) If one of the thesis supervisors is unable to attend, the thesis proposal seminar cannot be conducted.
9) The result of the thesis proposal seminar will be released after the revision of the proposal is completed.
10) The proposal approval form requires **the wet (direct)** signature of supervisor I, supervisor II, and the the Head of the Program Study, after the proposal has been revised by the student. The signing **does not take place immediately after the proposal defence.**
11) Once the proposal has been revised and approved by the thesis supervisors, it should be handed over to the Academic Department.
12) Requirements for thesis proposal seminar:

a. Proof of participation **in a minimum of 10** thesis proposal seminars conducted by fellow students.
b. Submitting the thesis proposal, which has obtained approval from supervisor I and II.
c. Showing tangible evidence of consultation such as summaries, records and screenshoots of seminar attendance from Simaster.

E. Administration of Ethical Clearance Letter Application

Several factors that need to be considered prior to handling the ethical clearance letter are as follows :

1) **Before** conducting research data collection, it is necessary to acquire the ethical clearance letter from the Ethics Committee of FK-KMK UGM.
2) If Students are conducting research under the main research project supervised by their supervisor (umbrella research), the submission of an ethical clearance is required only once. The submission should be done by the research leader of the main project, which involves students' participation.
3) If the student is responsible for submitting the ethical clearance, the submission process to the ethics committee must be approved by both research leader of the main project and the thesis supervisor.
4) For students who are engaged in individual research projects that are not associated with the main research supervised by the lecture, it is the responsibility of the student to independently submit the ethical clearance letter.
5) If students intend to conduct an addendum (renewal) of the research ethics, it should be noted that such modifications **can only be carried out during the active phase of the research** (data collection process is still in progress)
6) Students who are part of the umbrella research team that can proceed the proposal seminar only after all data has been collected **indicates that they utilize a secondary data**, even if they had previously contributed to the data collection process. This is because the proposal seminar are no longer able to receive feedback or input on various aspects prior to data collection.
7) For students conducting research by utilizing secondary data, **it is necessary to apply for a new ethical clearance letter.**
8) The submission of ethical clearance letter is conducted online through https://komisietik.fk.ugm.ac.id/ .
9) The procedure for submitting an ethical license letter can be found in **Appendix 4, section F.**

F. Complete Thesis Manuscript

1) Students are required to have **a minimum of 4 consultations** with both supervisor I and II for their thesis, and these consultation **need to be** recorded in the guidance card.
2) Once the thesis has been approved by both supervisor I and II, it should be promptly submitted to the academic department for scheduling the thesis defense by fulfilling the necessary requirements.
3) The thesis defense must be attended by both supervisor I and II, and the examiners.
4) If one of the thesis supervisors is unable to attend, the thesis defense cannot be conducted.
5) Students are required to be prepared and present **at least 15 minutes** before the scheduled time of defense.
6) **Punctual attendance** is required from both thesis supervisors I and II, as well as the examiners. If any of lecturers arrive more than 15 minutes late, the defense may be cancelled.
7) The thesis defense is carried out in a confidential manner.
8) The thesis approval pages requires **official (direct) signatures** of supervisor I, supervisor II, examiner, and the Head of the Nutrition and Health Study Program.
9) The thesis apprroval sheet must be printed on a paper bearing the UGM logo.
10) The assigned supervisors I and II for the students determined by the study program cannot be changed unless the supervisors voluntarily step down and their replacement are determined by the study program.
11) The Requirements for Thesis Examination are:
    a. Submit thesis that has been approved by supervisor I and II.
    b. Submit the approval letter to participate in thesis examination, signed by the supervisor I and II.
    c. Showing tangible evidence of consultation such as summaries, records and screenshoots of seminar attendtand from Simaster.

    d. Before starting the thesis presentation, students **are required** to provide evidence of plagiarism check using Turnitin, showing **maximum similarity score of 25%.** Thise evidence can be included in the presentation slides.

3. Guidelines for Thesis Writing

A. Paper

1) Type : HVS
2) Colour : White
3) Weight : 80 gram
4) Size : A4 (21,5 cm x 29,7 cm)

B. Writing Format and Numbering

1) Single side printing
2) Margins
   a. Left : 4 cm from the left side
   b. Right : 3 cm from the right side
   c. Up : 4 cm from the above side
   d. Bottom : 3 cm from the bottom side
3) The manuscript is typed in Arial font, size 11, with double spacing
4) Foreign terms are written in italics
5) Abbreviations must be written in full the first time they are mentioned.
6) Chapter titles are written in all capital letters, while subheadings only have the first letter of each word capitalized.
7) Numbering sequence:
   a. Numbering starts from 1 for each subsection.
   b. If there are sub-sections, numbering is done in sequence with an indented layout as follows. Example:

A. Background

1. Obesity

a. Various obesity-triggering factors

1) Modified factors

a) Eating patterns and diet quality

Physical activity

8) Page numbering

   There are two types of page numbering: lowercase Roman numerals and Arabic numerals.

   a. Lowercase Roman numerals (i, ii, iii, etc.) are used for the beginning sections of the thesis, such as the table of contents, list of tables, list of

figures, Page numbers are placed in the bottom right corner of the paper. For the Title Page, numbering is not written but still counted.

b. Arabic numerals (1, 2, 3 etc.) are used for the content and end sections of the thesis. Page numbers are located in the bottom right corner of the paper.

9) Writing Tables and Figures
   a. Table titles are written above the table, with a 1 cm space between the title and the table.
   b. Figure titles are written below the figure, with a 1 cm space between the title and the figure.
   c. When explaining a specific table or figure reerenced in the proposal or thesis text, the table or figure reference should start with a capital letter followed by the table or figure number (example: In Table 2… or …as seen in Figure 3).
   d. After writing the subheading, it must be followed by narration or an opening sentence/paragraph. Tables or figures should not be immediately displayed.

C. Guidelines for Cover Page

1) The title is typed symmetrically with a centered format.
2) The title should not use abbreviations, except for names or terms (e.g., PT, UD, CV)
3) The title should not be phrased as a question and does not need to end with any punctuation.
4) The UGM logo with a diameter of 2,5 cm, in black and white transparent format.
5) Components on the cover page are as follows:
   1. Title
   2. Type or level of Final Project (thesis proposal or thesis)
   3. For thesis manuscripts, after the type of final project is written, the sentence "Prepared to Fulfill the Requirements for Obtaining a Bachelor's Degree in Nutrition at FK-KMK UGM" is provided.
   4. Full name
   5. Student ID number
   6. Study program, Faculty, University, Year of Completion of thesis proposal or thesis manuscript.
   7. All information is in uppercase, using Times New Roman font, size 12, spacing 1.15, and centered on the cover page.

D. Statement of Authenticity

The first page of the thesis should contain statement indicating that the thesis does not contain any work previously submitted to any other university, and does not containe any work or opinion written and published by others, except as explicity referenced in the manuscript and listed in bibliography. Furthermore, the approval sheet should also include a declaration that plagiarism has been checked using Turnitin and is deemed clear with the supporting evidence of the check/certificate (attached).

4. Organization of Thesis Writing

The format of the proposal and thesis manuscript must consist of components presented in the following sequence:

ABSTRACT

CHAPTER I. INTRODUCTION
- A. Research Background
- B. Problems Identification
- C. Research Objectives
- D. Research Significance
- E. Research Authenticity

CHAPTER II. LITERATURE REVIEW
- A. Theoritical Review
- B. Theoritical Framework
- C. Conseptual Framework
- D. Hypothesis

CHAPTER III. RESEARCH METHODOLOGY
- A. Types and Research Design
- B. Research subjects
  1. Samples/Populations
  2. Number of samples
  3. Samples Collection Technique
- C. Research Variables
- D. Operational Definition
- E. Types of Data and Data Collection Technique
- F. Research Instrument
- G. Data Analysis Technique
- H. Research Ethics
- I. Research Procedures

CHAPTER IV. RESEARCH FINDINGS

CHAPTER V. DISCUSSIONS

CHAPTER VI. CONCLUSIONS

APPENDICES

5. Components of Chapters in the Thesis Writing

Abstract

During the finalization process of thesis manuscript, it is necessary to provide abstract in both Indonesian and English languages. The abstract should provide a concise overview of the conducted research, including the research background, methods, findings, and conclusions. The abstract should adhere to the following guidelines:

1. The abstract should be a single paragraph consisting of 250-300 words. It should be written in Times New Roman font, size 12, with single spacing.
2. The abstract should be written in both English and Indonesian language.
3. Following the abstract a list of keywords is provided, consisting of 3 – 5 words and/or phrases, arranged alphabetically.
4. Antara kata kunci dipisahkan oleh titik koma (;)
   The keywords are separated by semicolon (;) in between.

Example of abstract format:

(TITLE OF THE RESEARCH)

(Author's name, First Supervisor's Name, Second Supervisor's Name)

ABSTRACT

Research background: the background section serves to provide two or three sentences discussing the significance of the research. It may include excerpts from the background sub-section. This section should be concise, well-informed, and contain both the research question and its corresponding answer.
Objectives : The objectives is written according to the research goals that have been carried out.
Methods: The materials and research procedures are typically the easiest part to write as the researcher's collection of the research steps is still vivid. It should be presented in a clear, concise, and accurate manner to enable readers to easily replicate the research steps by referring to this section without encountering any missing information.
Research Findings: The findings section should provide a brief and clear summary of the data obtained from the research findings, without delving into discussions or interpretations of the meanings and the implications.

Conclussion: The conclusion can be written in one to two sentences that provide an answer to the research objectives. The conclusion should not be written using numerical data and instead present a concise statement or thesis based on the obtained results.

Keywords: Keywords I; Keywords II; Keywords III

CHAPTER I. INTRODUCTION

Introduction contains the research background, problems identification, research objectives, research significances, and the research authenticity.

1. The background justify the researcher's motivation to conduct the research by providing an overview of the research context, problem statement and outlining the relevance and significance of investigating the problem. This section should present approximately 50% of the relevant references. Things to be considered in writing the background:

    a. There are factual data that underlies the research problems.
    b. The research findings carry practical benefits.
    c. There are several aspects that require understanding or advancement based on the available facts.
    d. It should be written in concise, compact and encompassing manner, covering all three aspects mentioned above.

2. Formulating problems

    Problems formulation consists of brief sentences that are developed into more operational terms, allowing the measurement of research variables.The following aspects should be taken into consideration when formulating the problems:

    a. The problems should be formulated concisely.
    b. The problem formulation can examine connections or differences.
    c. The problem formulation can be in the form of a question.
    d. The problem should be formulated in a precise and clear manner, eliminating any potential misunderstanding, regardless of its complexity.

3. Research Obejctives

    The purpose of the research is the researcher's statement about the ultimate outcome that the researcher intends to achieve through the study. The objectives should be stated in clear and spesific terms. The research objectives can be categorized into general objectives, which encompass the overall areas to be explored, and spesific objectives, which provide detailed objecitves that support the general ones.

4. Research significance

The research significance provide clear evidence of the research's contribution to theory advancement, policy formulation, and the application of the research findings to enhance individual and organizational performance, efficiency, and quality. The practical significance is highlighted to support the value of conducting the research.

5. Research authenticity

Research authencity encompasses an examination of similar studies conducted within domestic and international levels. It showcases the students ability to explore and identify relevant prior research related to their research topic. Differences from previous research may encompass the theoritical framework, the application of theory in spesific or unique contexts or populations, and the generalization of theory to broader population. Moreover, it encompass the conceptual framework, research design, research instruments, and data analysis techniques utilized.

CHAPTER II. LITERATURE REVIEW

The arrangement of the literature review follows the research objectives, questions, and issues to be addressed. It is important to write the literature review in a coherent manner, avoiding any form of plagiarism. The aim of a literature review is not to incorporate a vast number of papers or reference every single research finding in the field. Instead, it focuses on including relevant references that have been utilized in the research and have been thoughtfully evaluated. The references should be sourced from both domestic and foreign research journals (40%), textbooks (30%), and online scientific articles (30%). The subsections within the literature review comprise the following:

A. Literature review

A literature review is a systematic collection of literature related to the research topic. The writer/researcher should correctly understand what is written in a literature review.

B. Theoretical Framework

The theoretical framework is a combination of roots in several theories related to the research to be carried out. The theoretical framework guides us when we read the literature. In other words, the researcher can only develop a theoretical framework if the researcher has studied the literature.

C. Conceptual framework

The conceptual framework is derived from the theoretical framework and usually concentrates on one part of the theoretical framework. Thus, the conceptual framework arises from the theoretical framework and relates to a specific research problem.

D. Hypothesis

A hypothesis can be described as a proposition or a provisional response to a research problem. In the case of exploratory research, which employs qualitative research methods, the literature review does not produce hypotheses. Instead, it formulates a research question that will be addressed through a planned research. Conversely, explanatory research, which is quantitative in nature and investigates the relationship between variables, presents temporary assumptions regarding this relationship as research hypotheses.

CHAPTER III. METHOD

The research method includes information on the type and design of the research, research subjects, identification of research variables, operational definitions of research variables, research instruments (materials and instruments), methods of data analysis, and the course of the research.

A. Types and Research Design

1. Quantitative Research

1.1. Descriptive research

Descriptive research describes a condition or phenomenon that occurs in a group of certain subjects. As an example :

- Study of the prevalence of nutritional status in specific communities
- Study on the role of the hospital nutrition installation as a revenue center

1.2. Analytical/Observational Research

Analytical research aims to examine the causal relationship or determinants of a phenomenon. So in analytical research, a conclusion is made that is causal in nature. Such a causal relationship is not always causal but can also be correlational. In this study, there was no intervention from the researcher. Analytical research can be divided into cross-sectional, case-control, and cohort studies.

1.3. Experimental Research

This type of study grants researchers the power to administer treatment or intervention to the participants. Experimental research can be categorized into two main types: true experimental and quasi-experimental research. In a quasi-experimental study, subjects are assigned to groups randomly, but the primary confounding variables are not adequately controlled. On the other hand, a true experimental research design encompasses the following components:

a. Complete Random Design
b. Factorial Design
c. Same Subject Design
d. Cross Pattern Design
e. Randomized Complete Block Design
f. Balanced Incomplete Block design

The quasi-experimental research design is

a. One group pretest-postest design
b. Randomized Solomon for four group design
c. Pretest-posttest with control group design

2. Qualitative Research

Qualitative research endeavors to obtain comprehension by employing particular methodologies that facilitate the exploration of social or human issues. In this context, the researcher investigates intricate and holistic aspects, analyzes narratives, captures respondents' perspectives, and investigates them within a genuine (natural) setting. An illustration of how qualitative research objectives can be applied in health programs includes:

a. Exploring health problems that were not widely known before
b. Identify local perceptions of health and development priorities
c. Identify relevant intervention strategies and target populations.

Several types of qualitative research are biography, phenomenology, grounded theory, ethnography, and case studies. The methods that can be used in this study are one or a combination of observation/observation, in-depth interviews, documentation, and focus group discussions (FGD). In contrast to quantitative studies, qualitative studies analyze data more narratively to find attachment patterns between variables.

The steps in analyzing qualitative study data are: (1) data transcripts from sources/subjects, (2) data reduction, namely selecting important data or points, creating categories in the form of themes, statuses, numbers, or alphabets, (3) presenting data in patterns specific categories that have been compiled (data synthesis), and (4) draw conclusions and triangulate data, namely the use of several methods or data sources to validate results and develop a comprehensive understanding of phenomena. Some data processing software can be used in qualitative studies, namely Nvivo, Transana, and MAXQDA.

B. Research subject

Research subjects' descriptions include sample/population, sample size, and sampling method.

1. Sample/Population

   The sample or population refers to the defining attributes of the research group, which may encompass geographical or administrative location characteristics (such as the village, sub-district, district, or the working area of a health center), subject-specific attributes (such as gender, age, parity, or species), and disease-related characteristics (such as disease type, disease severity, type of medication used, or type of treatment ward). The selection of this population is contingent upon the research problem and objectives.

   The boundaries of the population can be clearly defined through the use of inclusion and exclusion criteria. The process of selecting research subjects based on the inclusion criteria involves conducting two screenings. The first screening filters subjects based on the criteria that permit their inclusion in the study. However, not all subjects who pass the first screening will necessarily participate in the study if they have specific contraindications. This second screening process is referred to as the exclusion criterion.

2. Sample Size

   Ideally, a study would involve the participation of every individual within the population. However, conducting research on the entire population is often impractical due to the significant financial, logistical, and personnel resources required. Therefore, a subset of the population is selected, known as a sample. The size of the sample needs to be determined using an appropriate formula. The relevant formula will be presented in this section, and the sample size will be calculated accordingly. It is important to note that if the research encompasses the entire population, the term "sample" becomes irrelevant.

3. Sampling Method

Sampling includes probabilistic and non-probabilistic sampling techniques. Probabilistic sampling techniques include simple random sampling, systematic sampling, stratified random sampling, cluster sampling, and multistage sampling. A non-probabilistic sampling includes accidental sampling, convenience sampling, quota sampling, and snowball sampling.

C. Research variable

The determination of research variables relies on a conceptual framework constructed through a comprehensive literature review. These variables are categorized based on their role, including influential variables (independent variables), variables being influenced (dependent variables), confounding variables (nuisance variables), and controlled variables. In specific studies, there may also be intervening variables and moderator variables that come into play.

D. Operational definition

The operational definition of a variable explains how a variable will be measured and what measuring instrument is used. This definition has practical implications in the data collection process. So the operational definition is not a theoretical definition.

E. Types and Methods of Data Collection

Data gathered from different variables can be classified into primary and secondary. The following is a further explanation of each type.

1. Primary data

Primary data is data obtained from all the facts and figures in **direct research** so that it can even be used to compile relevant information to actual conditions.

The advantages of primary data:

a. Primary data is devoted to the needs of researchers at the time of data collection. Researchers are able to control the type of data collected.
b. More current and accurate than secondary data. The data is not subject to personal bias; thus, its authenticity can be trusted.
c. Researchers demonstrate ownership of the data collected through primary research. Researchers can choose to make it available to the public, patent it, or even sell it.

d. Primary data is usually up-to-date because it collects data in **real time** and does not collect data from old sources.
e. Researchers have complete control over the data collected through primary research. Researchers can decide on the design, methods, and data analysis techniques.

The weaknesses of primary data:

a. Primary data is costly compared to secondary data. Therefore, primary data collection may take much work.
b. This data takes time to collect.
c. In some cases, primary data collection may not be possible due to the complexity and commitment required.

In preparing a thesis, an example of primary data is data collected by students by taking data directly to the subject or analyzing products in the laboratory. It is done **after** getting input in the thesis proposal exam to get an ethical approval letter.

2. Secondary data

This form of data is acquired from studies, surveys, or experiments conducted by other individuals or for different research purposes, which we utilize in our own research. Such data can be obtained from diverse sources such as government publications, censuses, internal organizational records, books, journal articles, websites, research reports, and more.

The advantages of secondary data:

a. Secondary data is easily accessible compared to primary data. Secondary data is available on various platforms that researchers can access.
b. Secondary data is very affordable. It takes little or no cost to obtain it because it is sometimes provided free of charge.
c. The time spent collecting secondary data is usually much less than primary data.
d. Utilizing secondary data enables the execution of longitudinal studies without the need to wait for an extended period to draw conclusions.
e. Secondary data helps generate new insights into existing primary data.

The weaknesses of secondary data:

a. Secondary data may not be authentic and reliable. A researcher may need to verify further data collected from available sources.
b. Researchers may have to deal with irrelevant data before finally finding the data needed.
c. Some data are exaggerated due to personal bias of the data source.
d. Secondary data sources sometimes become obsolete without new data to replace the old.

Example of secondary data include National Health Surveys data, Total Diet Survey (TDS) data, and available data from previous studies.

F. Research Instruments

The research instrument encompasses the measurement tools employed in the study, which can take the form of standardized measuring instruments such as scales, thermometers, and open or closed questionnaires. A measuring instrument is considered good when it possesses two attributes: validity and reliability. Consequently, researchers need to conduct studies to assess and enhance the validity and reliability of these measuring instruments through trial experiments. It is essential to explain how the trials were conducted, including the timing, methodology, subjects involved, data analysis, and outcomes. Research instruments encompass not only materials and tools but also chemical analyses employed in the research.

G. Data Analysis Method

This section explains how a researcher transforms research data into information that can be used to draw research conclusions.

H. Research Ethics

This section describes that the researcher has carried out steps or procedures to fulfill research ethics requirements in humans, experimental animals, institutions, or systems within an institution. This section must include the ethical code (number) obtained.

I. Research Procedures

This section presents the steps taken by the researcher chronologically in the research process. This description is essential because it can be used to assess whether the research process can influence the research results.

CHAPTER IV. Results and Discussion

A. Results

Research results can be presented in three types: textual, tabular, and graphic. Suppose the researcher presents a combination of 2 techniques: textual and tabular or textual and graphical. In that case, the researcher should not describe the data in the table. Still, the researcher concludes the data by explaining the things that stand out from the data, such as the most significant percentage (frequency), the smallest percentage, the largest and smallest mean, or the largest and smallest differences or significant relationships. Other more detailed information can be obtained by readers from tables or charts. The data presented in the table have been grouped into categories, or descriptive measures have been calculated. The things that need to be considered in the presentation of the table are:

1. The raw data is summarized in a master table in the appendix.
2. Tables can be in columns, rows, or both (cross-tabulation), and the categories can be qualitative, quantitative, or a combination of both. Except for presenting a table to calculate the odds ratio (OR) and risk ratio (RR), the effect variable is placed in the column, and the affected variable is set in the row.
3. Tables must be simple and easy to understand, including a maximum of 2 variables. If there is a lot of information to be presented, present it in several tables.
4. Table presentation must be independent so that the reader does not need to read the text first to understand. Therefore, the table must contain a complete explanation, including the title, the code/symbol used, the categories in the columns/rows, and the data sources.
5. Table titles should be concise and clear and contain what, where, and when. Table titles are written above the table, on the left (align left), and numbered, for example, Table 1.
6. If there are abbreviations in the table, please explain in a smaller font in the description below the table on the left.
7. The data source must be mentioned if the table presents secondary data.
8. Tables must not be truncated (presented on two different pages).
9. Table titles with more than one line are written with a single space (single).

Occasionally, researchers may opt to use charts instead of tables for presentation purposes. Charts tend to be more visually appealing and captivating to readers compared to tables. Various types of charts exist, with the most commonly employed ones being bar

charts, frequency charts, histograms, line charts, scatter charts, pie diagrams, and box plots. When creating a chart, several factors should be taken into account, including:

1. Charts do not contain more than two variables for simplicity and clarity.
2. Charts must be self-explanatory; each chart must be given a title, the abbreviation used (if any), and a footnote of the term or description in the table.
3. The chart's title must be concise and clear and contain information relating to what, where, and when written below the chart, on the left, and numbered (Figure 1.)
4. Chart titles with more than one line are written with a single space.

B. Discussion

The discussion section aims to elucidate the reasons behind conducting the research in the manner it was undertaken. Explanations should be provided not only when the research findings do not align with the initial hypotheses but also when the results conform to expectations. The description should entail a theoretical explanation of the underlying mechanisms that contribute to the observed results. Moreover, the discussion should address the relationship of the present research with prior studies and whether they exhibit similarities or differences. The rationale for conducting the research in a specific manner can be elucidated by focusing on theoretical and methodological aspects. The research results and discussion are typically presented separately in distinct subsections. Finally, it is customary to highlight the strengths and weaknesses/limitations of the conducted research at the end of the discussion.

CHAPTER V. Conclusions and Suggestions

Conclusions are drawn in accordance with the research objectives that have been set. Elements that are not explicitly stated in the research objectives are not required to be included in the conclusion chapter. It suffices to focus on presenting the research findings and the corresponding discussions.

Operational suggestions or recommendations are derived from the conclusions drawn from the research findings. It is essential that these suggestions are grounded in the research findings and not presented abruptly without such basis. Likewise, it is unacceptable to make normative suggestions that assume prior knowledge without conducting the research. Furthermore, it is important to avoid providing excessively disproportionate suggestions, as they may lead to confusion regarding the appropriate actions to be taken.

References

In composing references or bibliographies following the **Harvard system**, organizing them in a particular sequence and adhering to standardized formatting and punctuation is necessary. The references should be arranged according to the following guidelines:

1. The bibliography is arranged alphabetically according to the author's last name. To maintain consistency in writing references, the author's name starts from the last name, followed by the abbreviation of the first name. Example :

   Aggleton, P. and Chlamers, H. (2000) .....

   Health Education Authority (1993) .....
2. To maintain consistency in writing references, the author's name starts from the last name, followed by the abbreviation of the first name.

3. The word "editor" or "editors" is abbreviated as "ed" or "eds".

4. In writing references, the "&" character may also be used to write the authors' names, and the use of the character must be consistent (Leeds Metropolitan University, 2004).

5. When quoting several writings from one author, the bibliography is arranged chronologically based on the year of publication or with additional letters (e.g., 1993a, 1993b) if several writings from the same author have been published in the same year. Example :

   Bloggs, J. (1992) ...

   Bloggs, J. (1993a) ....

   Bloggs, J. (1993b) ....

   The citation is also written in the following form:

   ..... (Bloggs, 1992)

   ..... (Bloggs, 1993a)

   ..... (Bloggs, 1993b)

According to the Harvard system, the reference/bibliography writing format is grouped into references derived from books and other mono charts, published articles, unpublished manuscripts, and manuscripts in electronic media (Inter Comm of Med J Editors, 2005).

A. Books and Other Monographs

a. Books

In general, referencing information sourced from a book requires including:

1) Author names, editors, compilers, or responsible institutions.Nama-nama penulis, editor, penyusun atau institusi yang bertanggung jawab.
2) Publication year of the book.Tahun buku tersebut dipublikasikan
3) Book title and subtitle if any (all titles should be consistently bold, underlined, or italicized).
4) Book series or volume if applicable.
5) Edition
6) Publisher
7) Place of publication
8) Pages of the book used as a reference, if available (Cybrary)

Single Author

Example:

Gibson, R. S. (2005). Principles of nutritional assessment. New York: Oxford university press.

Two or More Authors

Example:

Moir, A. & Jessef, d. (1991). Brain sex: the real difference between men and women. London : Mandarin.

Cheek, J., doskatsch, I., Hill, P. & Walsh, L. (1995). Finding out: information literacy for the 2lst century. South Melbourne: MacMillan Education Australia.

Editor or Compiler as Author

Example:

Spence, B. ed. (1993) Secondary school management in the 1990s : challenge and change. Aspects of Education Series, 48. London: Independent Publishers.

Robinson, W.F. & Huxtable, C.R.R. eds. (1998) Clinicopathologic principles for veterinary medicine. Cambridge: Cambridge University Press.

Author and Editor

Example:

Breedlove, G.K. & Schorfheide, A.M. (2001) Adolescent pregnancy. 2nd ed. Wieczorek, R.R. ed. White Plains (NY): March of Dimes Education Services.

Institution, Company, or Organization as Author

Example:

UNESCO (1993) General information programme and UNISIST. Paris : Unesco, PGI-93/WS/22

Health Education Authority (1992) A philosophy for midwifery. London :RCM.

Reference "In" One of the Writings in a Collection Book

When one of the writings in a collection book is the source of reference, the referencing format broadly includes:

1. Author of the text
2. Publication year
3. Title of the text being referenced
4. Use of "In"
5. Author/editor of the collection book
6. Title of the collection book (written in bold, underlined, or italicized).
7. Place of publication
8. Publisher
9. Page numbers of the collection book used as a reference (Leeds Metropolitan University, 2004).

Example :

Porter, M.A. (1993) The modification of method in researching postgraduate eduaction. In : Burgess, R.G.ed. The reseacrh process in educational settings : ten case studies. London : Falmer Press, pp. 35-47.

Second reference (Book Cited within Another Book)

When a reference is sourced from a book cited within another book, the reference should be written as follows: :

Confederation of British Industry (1989) Towards a skills revolution : a youth charter. London : CBI. Quoted in : Bluck, R., Hilton, A., & Noon, P. (1994) Information skills in academic libraries : a teaching and learning role in higher education. SEDA Paper 82. Birmingham : Staff and Educational Development Association, p. 39.

b. Seminar Proceedings or Meetings

If the reference is sourced from seminar proceedings or meetings, the referencing should include:

1. Name of the seminar or meeting
2. Seminar or meeting number (if applicable)
3. Year
4. Location of the seminar or meeting (if applicable)
5. Year published.
6. Title of the proceedings, if different from the seminar or meeting name (written in bold, underlined, or italicized).
7. Author/editor
8. Place of publication

9. Publisher (Leeds Metropolitan University, 2004).

Example:

ERGOB Conference on Sugar Substitutes, 1978. Geneva, (1979). Health and sugar substitutes: proceedings of the ERGOB conference on sugar substitutes, Guggenheim, B. ed. London : Basel.

c. Papers Presented at Seminars or Meetings

For papers presented at seminars or meetings that have been collected in a seminar or meeting proceedings, the referencing format is the same as "In".

Example :

Romanov, A.P. & Petroussenko, T.V. (2001) International book exchange : has it any future in the electronic age ? In : Neven, J. ed. Proceedings of the 67Th IFLA Council and General Conference, August 16-25, 2001, Boston USA. The Hague, International Federation of Library Association and Institutions, pp.80-8.

For papers presented at seminars or meetings not collected in proceedings, the referencing format is as follows.

Example :

Lanktree, C. & Briere, J. (1991, January). Early data on the Trauma Symptom Checklist for Children (TSC-C). Paper presented at the meeting of the American Professional Society on the Abuse of Children, San Diego, CA.

Haryo, T.S. & Istiadjid, M. (1999, September). Beberapa faktor etiologi meningokel nasofrontal. Naskah dipresentasikan dalam konggres MAB1, Jakarta.

References sourced from meeting papers in the form of posters can be written as follows:

Ruby, J. & Fulton, C. (1993, June). Beyond redlining : Editing software that works. Poster session presented at the annual meeting of the Society for Scholarly Publishing, Washington, DC.

d. Encyclopedias

Example :

Hibbard, J.D., Kotler, P. & Hitchens, K.A. (1997) Marketing and merchandising, in: The new Encyclopedia Britannica, vol. 23, 15th revised ed. London : Encyclopedia Britannica.

e. Dictionaries

Example :

The Oxford English dictionary. (1989) vol. 5, 2"d ed. Oxford : Clarendon.

f. Reports or Technical Reports

Published by Funding Organization/Sponsor

Example :

Yen, G.G (Oklahoma State University, School of Electrical and Computer Engineering, Stillwater, OK). (2002, Feb). Health monitoring on vibration signatures. Final Report. Arlington (VA) : Air Force Office of AFRLSRBLTR020123. Contract No. : F496209810049.

Published by the Organizer

Example :

Yen, G.G (Oklahoma State University, School of Electrical and Computer Engineering, Stillwater, OK). (2002, Feb). Health monitoring on vibration signatures. Final Report. Arlington (VA) : Air Force Office of AFRLSRBLTR020123. Contract No. : F496209810049.

g. Theses or Dissertations

References sourced from theses or dissertations should include the author's name, publication year, thesis or dissertation title, purpose and type, and the name of the degree-granting institution.

Example :

Page, S. (1999) Information technology impact : a survey of leading UK companies. MPhil.thesis, Leeds Metropolitan University.

Istiadjid, M. (2004) Korelasi defisiensi asam folat dengan kadar transforming growth factor-˜1 dan insulin-like growth factor-l dalam serum induk dan tulang kepala janin tikus. Disertasi, Universitas Airlangga.

h. Patents

References sourced from patents should include the patent owner's name, publication year, patent title, patent serial number along with the complete issue date.

Example :

Philip Morris Inc. (1981) Optical perforating apparatus and system. European patent application 0021165A1. 1981-01-07.

B. Articles

a. Journal articles

For articles, the referencing format broadly includes:

1. Author of the article
2. Publication year
3. Article title
4. Journal title (written in bold, underlined, or italicized)
5. Volume and issue number of the journal
6. Page numbers of the journal containing the referenced article (Cybrary, 2004).

Standard Journal Article

For articles written by more than 3 people, all author names must be listed in the reference, not abbreviated with et al. or etc. The use of et al. or etc. is allowed only when citing the article in the text (Leeds Metropolitan University, 2004).

Example :

Bennett, H., Gunter, H. & Reid, S. (1996) Through a glass darkly : images of appraisal. Journal of Teacher Development, 5 (3) October, pp. 39-46.

Organization or Institution as Author

Example :

Diabetes Prevention Program Research Group. (2002) Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. Hypertension, 40 (5), pp. 679-86.

Both a Person's Name and an Organization as Authors

Example :

Vallancien, G., Emberton, M. & van Moorselaar, R.J; Alf-One Study Group. (2003) Sexual dysfunction in 1,274 European men suffering from lower urinary tract symptoms. J Urol, 169 (6), pp. 2257-61.

No Author's Name

Example :

How dangerous is obesity? (1977) British Medical Journal, No. 6069, 28 April, p. 1115.

Volume With Supplements

Example :

Geraud, G., Spierings, E.L., & Keywood, C. (2002) Tolerability and safety of frovatriptan with short- and long -term use for treatment of migraine and in comparison with sumatriptan. Headache, 42 Suppl 2, S93-9.

Volume with Parts

Example :

Abend, S.M. & Kulish, N. (2002) The psychoanalytic method from an epistemological viewpoint. Int J Psychoanal, 83 (Pt 2), pp. 491-5.

b. Newspaper Articles

Example :

Sadli, M. (2005) Akan timbul krisis atau resesi?. Kompas, 9 November, hal. 6.

c. Audio-Visual Articles (35 mm Film, Recorded TV Programs, Radio Broadcasts, VIDEOCASSETTE, VCD, or DVD)

Example :

Now voyager.(Film 35mm). (1942) Directed by irving Rapper. New York: Warner.

Now wash your hands. (Videocasette). (1996). Southampton: University of Southampton, Teaching Support & Media Services.

C. Unpublished Manuscripts(In press)

Example :

Tian, D., Araki, H., Stahl, E., Bergelson, J., & Kreitman, M. (2002) Signature of balancing selection in Arabidopsis. Proc Natl Acad Sci USA. In press.

D. Manuscripts in Electronic Media

a. Electronic Books (e-Books)

Example :

Dronke, P. (1968) Medieval Latin and the rise of European lovelyric[Internet]. Oxford: Oxford University Press. Available from: netLibrary <http:!/www.netLibrary.com/urlapi.asp?action=summary &v=1&bookid=22981> [Accessed 6 March 2001].

b. Electronic Journal Articles

Example :

Cotter, J. (1999) Asset revelations and debt contracting. Abacus [Internet], October, 35 (5) pp. 268-285. Available from: <http://www.ingenta.com> [Accessed 19 November 2001].

c. Web pages

Example :

Rowett, S. (1998) Higher Education for capability: autonomous learning for life and work [Internet], Higher Education for Capability. Available from: <http://www.lle.mdx.ac.uk/hec/ about.htm> [Accessed 8 August 2000].

d. Web sites

Example :

Program Studi S2 Ilmu Kesehatan Masyarakat UGM. (2005) Program Studi S2 llmu Kesehatan Masyarakat UGM[Internet]. Yogyakarta : S2 IKM UGM. Tersedia dalam: <http://ph-ugm.org> [Diakses 8 November 2005].

e. CD-ROM

Example :

Picardie, J. (1998) I can never say goddbye. The Observer [CDROM], 20 September, 1. Available from: The Guardian and Observer on CD-ROM. [Accessed 16 June 2000].

Royal Institute of British Architects (1998) Architecture and Design Illustrated London : RIBA [CD-ROM].

f. Computer Database

Example :

Gray, J.M. & Courtenay, G. (1988) Youth cohort study [computer file]. Colhester: ESRC Data Archive [distributor].

g. Images from the internet (visual information, pictures, and illustration)

Example :

Hubble space telescope release in the space shuttle's payload bay. (1997) [Daring image]. Available from: <http:// explorer.arc.nasa.gov/pub/> SPACE/GIF/s31-04-015.gif, [Accessed 6 July 1997].

h. Email

Example:

Brack, E.V. (1996). Computing and short courses. LIS-LINK 2 May 1996 [Internet discussion list]. Available from: mailbase@mailbase. ac.uk [Accessed 15 April 1997].

6. Anti-Plagiarism Check using Turnitin

It is necessary to conduct plagiarism check and address all forms of academic disintegrity (dishonesty) to ensure that final assignments, scientific articles, and reports are authentic works of the individual. Academic integrity by practicing honesty and showing respects to others' works can be done by appropriately citing and including them in the bibliography. Several regulations are in place to govern issues related to anti-plagiarism, including:

a. Regulation of the Minister of National Education No. 17 of 2010 concerning the prevention and mitigation of plagiarism in Higher Education.
b. Regulation of the Minister of National Education No. 22 of 2011 concerning guidelines for scientific periodical accreditation.
c. Regulation of the Director General No. 29/DIKTI/Kep2011 concerning guidelines for scientific periodical accreditation.

Based on these regulations, as a result:

Universities and journal managers are required to upload scientific works of students and lecturers onto the Garuda portal, university portals, journal portals, and similar platforms.

Regulation of the Minister of National Education Number 17 of 2010 Article 2 states that the definition of plagiarism includes the following:

a. refering to and/or quotes terms, words and/or sentences, data and/or information from a source without acknowledging the source in the citation notes and/or without providing sufficient attribution to the source;
b. adequately refering to and/or quoting terms, words and/or sentences, data and/or information from a source;
c. utilizing a source of ideas, opinions, views, or theories without providing sufficient attribution to the source;
d. formulate words and/or sentences from a source of words and/or sentences, ideas, opinions, views, or theories, without providing sufficient attribution to the source;
e. submit a scientific work produced and/or published by another party as one's own without providing sufficient attribution to the source;

Several forms of cheating aside from plagiarism that frequently occur in academic writing include the following:

b. Plagiarism encompasses various forms, including (1) directly copying ordinary written material word for word from its original source without proper citations or quotation marks ("…"), (2) paraphrasing written materials without acknowledging the source, (3) utilizing pictures, designs, research results, programming code, and other materials without providing sufficient attribution to the source (without citation).
c. Shadow writer (ghost writer), refers to writing tasks created by other person but renamed as if they were done by the students who committed plagiarism.
d. Collusion, refers to the act of copying written material precisely from another student with the explicit knowledge and consent of the original author.
e. Theft, refers to the act of copying writing material precisely from another student without the explicit knowledge and consent of the original author.

Avoiding plagiarism entails the practice of clearly and correctly acknowledging the source **every time** we use:

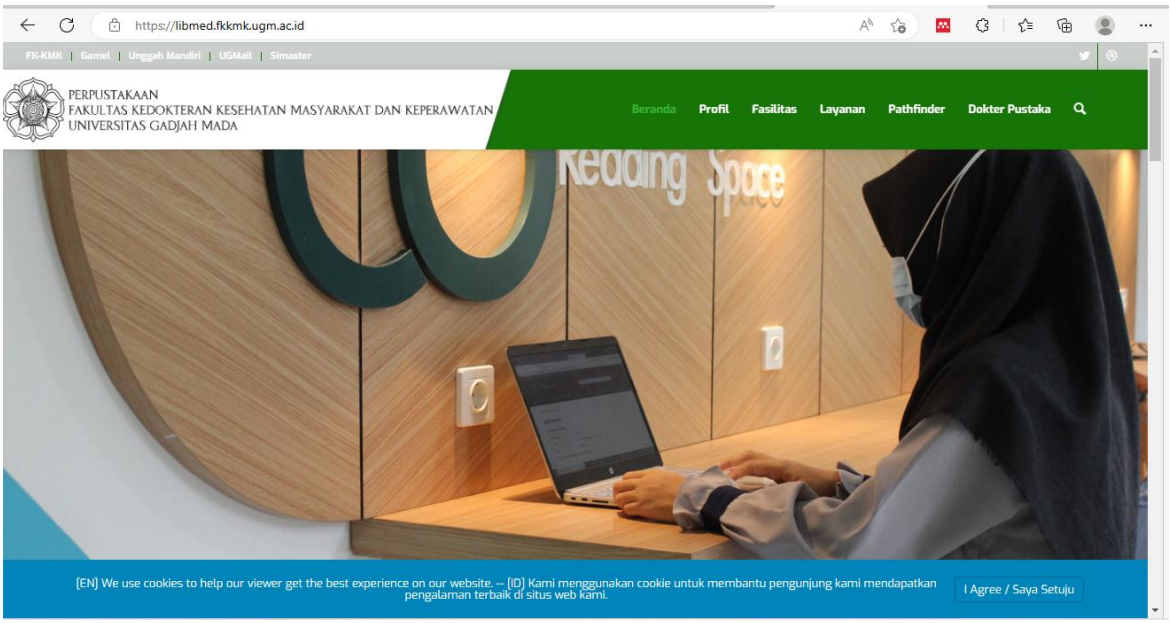
a. Ideas, opinions, and theories originating from others.
b. Any facts, statistical data, graphs, images, or information, which are not regarded as common knowledge.
c. Quoting (marking "….") other people's writings or words (direct sentences) while still mentioning the original source.
d. Paraphrasing (writing/uttering the ideas of others using our own words) and still acknowledging the sources. The followings are several approaches to paraphrasing:
    - Read and reread the original text until you understand.
    - Replace as many words from the original text as possible with the suitable synonyms.
    - Change grammatical forms (e.g. passive sentences to active sentences).
    - Never use identical words as found in the original text, except for words that do not have synonyms (e.g. chemical elements, place names, people's names, diseases, etc.).
    - Do not make the same narrative sequence as the original text.
    - Group/combine/rearrange ideas from the original text without changing the meaning.

Before submitting a thesis examination, the thesis manuscript must first be checked for plagiarism using the **Turnitin** application. **Students' theses should adhere to a maximum acceptable similarity threshold of 25%.** The Turnitin plagiarism checker can be accessed by visiting https://www.turnitin.com/id. However, to be able to perform

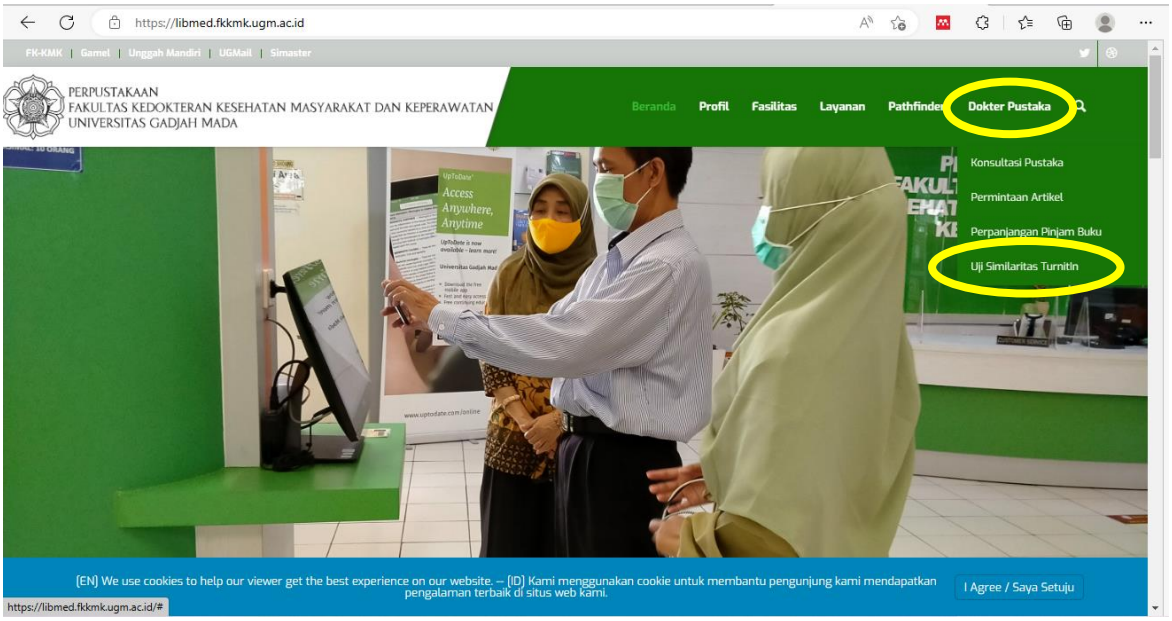
independent checks, you need to subscribe according to the benefits/facilities offered. Hence, to facilitate the process of utilizing Turnitin, the FK-KMK UGM Library offers a special service accessible at https://libmed.fkkmk.ug.ac.id/.

The steps for submitting a Turnitin check through the UGM FK-KMK library are as follows:

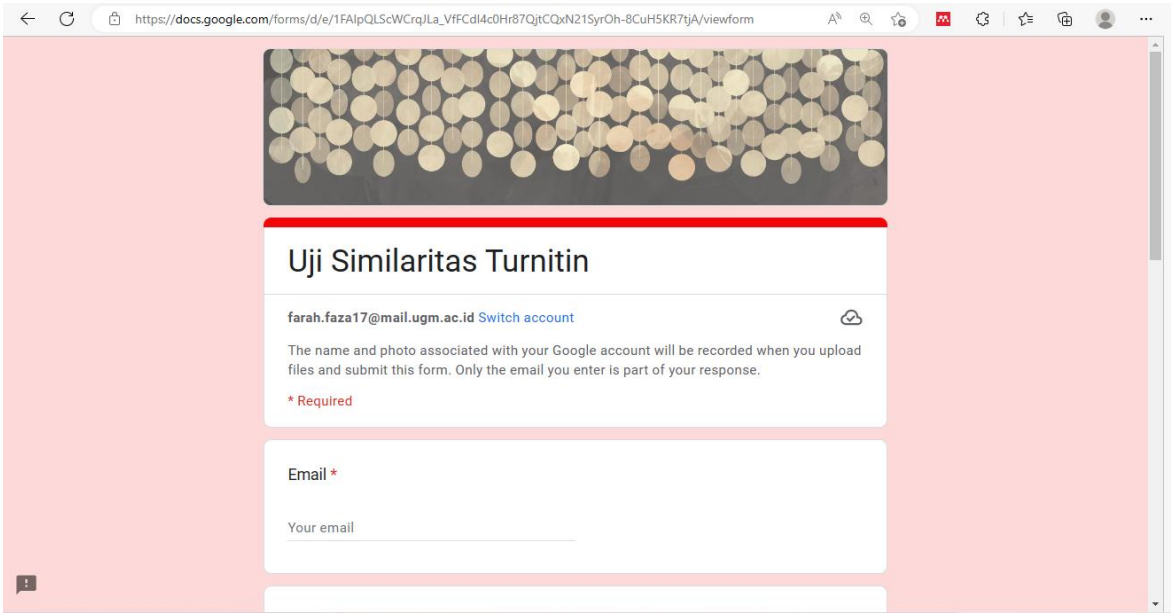
1. Open https://libmed.fkkmk.ugm.ac.id/



2. Click **'Dokter Pustaka'** and **'Uji Similaritas Turnitin'** at the top corner



3. Fill personal data and upload the document that will be submitted to Turnitin



There are several things that must be considered when submitting a request for Turnitin checking, including: (1) uploading the thesis manuscript several weeks in advance, preferably around one month prior to the thesis examination, (2) making sure the manuscript being examined is adheres to the format specified for the final project, (3) after completing the form, students can wait for the checking process aproximately ± 1 week.

7. Dissemination of Research Results

Students are also required to write a publication text to be disseminated at a scientific meeting/conference or scientific journal. This serves to enhance the significance of the thesis by demonstrating the potential for greater utilization of the research findings. This is associated to the publication's ability to reach a significantly broader readerchip, thereby increasing the potential for its practical application.

The writing style of publication manuscripts is adjusted to align with that of scientific journals/magazines to be addressed. Likewise, abstracts must be tailored to adhere to the provisions set for abstracts writing specific to the intended scientific meeting/conference. The Vancouver method is predominantly utilized for referencing scientific journals in academic writing. According to this method, each reference should be assigned a number

based on its sequential appearance in the text. References to tables or figures are likewise numbered based on the corresponding identification of the table or source within the text.

Some examples of SINTA indexed national scientific journals that can be used as publication purposes are:

1. Jurnal Gizi Klinik Indonesia (https://jurnal.ugm.ac.id/jgki)
2. Journal of Community Empowerment and Health (https://jurnal.ugm.ac.id/jcoemph)
3. Amerta Nutrition (https://e-journal.unair.ac.id/AMNT/)
4. Jurnal Gizi Indonesia (https://ejournal.undip.ac.id/index.php/jgi)
5. Media Gizi Indonesia (https://ojs2.e-journal.unair.ac.id/MGI)

Guidelines regarding writing publication manuscripts, both scientific articles for scientific journals/publications and scientific conferences, will be explained in detail in the next chapter.

Guidelines for Article Publication in Scientific Journals

A. The Importance of Publishing Scientific Articles

One of the prerequisites for obtaining a bachelor's degree in Nutrition and Health at FK-KMK UGM is by carrying out research. However, it is essential to note that the research is not considered complete until the research results are published. The publication aims to maximize the accessibility of the results to a wide audience (knowledge diffusion), allowing for falsification, verification, and comparison (advancement of theories and knowledge.

According to Indriati (2007), if someone has developed a research proposal, it can be said that 20% of the research has started. Only 80% of the objectives have been achieved if the research has been completed. However, once the research progresses to the stage of publication in a scientific journal or publication, it can be regarded that 100% of the research objectives has been accomplished. This is because unpublished research only fills library shelves, so it can only be accessed by a limited number of people. Consequently, the ultimate goal of the research, which is to generate useful outcomes for the greater community, may not be fully realized, thus diminishing the potential benefits of the research for the advancement of science.

Universitas Gadjah Mada has established itself as a research-oriented university, making the quantity of the published articles is a significant indicator. The number of publications and research cited, especially in international journals (citations in international journals per researcher), is one of the criteria for evaluating the ranking of the top universities. All universities in Indonesia that are included in the list of Asia's best universities in 2023, such as UGM, ITB, IPB, UI, and Unair, exhibit citation scores per article ranging from 1.0 to 1.2. These scores are significantly lower when compared to Chulalongkorn University, which has a

score of 14.6 (12 times higher), University Malaya with a score of 39.4 (33 tiems higher), and National University of Singapore with a score of 56.5 (47 times higher). (https://www.topuniversities.com/university-rankings/asia-university-rankings/south-eastern-asia/2023).

So far, only a fraction of the numerous research outcomes by students have met the criteria for publication. A common obstacle faced is the low ability in presenting the research findings in the form of scientific articles that can be published in high-quality scientific journals/publications. In addition, students are generally not fully committed in creating publication manuscripts because they are more concerned in fulfilling graduation requirements and other obligations. Consequently, they tend to resort to copying and pasting from their thesis manuscripts.

B. Characteristics of High-Quality Scientific Articles

Every student should be able to present their research findings to be worthy of publication. Therefore, it is essential to know the characteristics of high-quality scientific articles. According to Abdullah (2004), an article can be of good quality if it meets the requirements in terms of content and presentation. In terms of content, high-quality articles convey useful things, utilize the latest and adequate references, are scientifically justifiable, and allow others to conduct further research. In terms of presentation, an article must be concise, clear, easy to understand, use the right technical terms, use the right choice of words, use the right sentences, and be free of typos.

It often happens that an article is actually good when viewed in terms of content. However, the article could not be published because the journal's editorial board considered that the article had too much to improve in terms of presentation. On the other hand, an article that has been written as good as possible in terms of presentation still may not be published because the content does not provide anything new for science. Therefore, the originality of research, which entails introducing new discoveries or improving previous findings, rather than merely replicating existing research, must be taken into account right from the preparation of a research proposal.

Scientific articles should not only present data; what holds greater significance is the ability to analyze and interpret the data intellectually. Scientific articles are not a mere summary of the thesis. They should focus on certain parts of the research that allow the readers to comprehend the key findings without needing to read the entire thesis.

Scientific articles must rely on references, observations, and statistical tests rather than personal experience to prevent chance. Therefore, extensive literature review is necessary as it enables the creation of coherent and meaningful sentences in scientific articles, avoiding the

repetition of meaningless content. Writing style, grammar, and vocabulary mastery are important for achieving excellence in writing.

C. Organizing Sections in a Scientific Article

Scientific articles generally consist of titles, abstracts and keywords, introduction, research materials and methods, results, discussions, conclusions, acknowledgements, and references/bibliography. All sections in the scientific article must be considered to meet the requirements of a high-quality article.

Title

The title is a pivotal part of an article, enabling the readers to grasp the core of the article simply by reading it. Therefore, the title must accurately depict the comprehensive content of the article. The title should not be too general, for example, “Food safety study”. The title cannot lead the reader to the contents of the article. The title should have been more specific, for example, "Analysis of food hygiene and sanitation for food handlers in the production department of the Nutrition Installation of Hospital X".

However, the title must also be sparing in words but adequately describe the article's contents, for example, "The effect of the number and frequency of breakfast of elementary school students in Yogyakarta on study concentration, subject grades, and grade increment." This title can be shortened to: "The effect of breakfast patterns on academic achievement of elementary school students in Yogyakarta".

Abstract and Keywords

The abstract must provide enough information to enable readers to determine whether to proceed with reading the entire article. Even though the abstract appears at the beginning of the article, it is better if the abstract is written last, after completing the entire body of the article. This approach ensures that the abstract serves as a concise summary of the main objectives and scope of the research, outlining the materials and methods employed, summarizing the results, highlighting the main conclusions, and emphasizing the significance/benefit value of the research. Abstracts must be written as carefully and efficiently as possible because they are usually limited to 100 to 200 words.

Keywords are usually written below the abstract, and serve as valuable tools for other researchers to locate and cite the article. Keywords are usually limited to 5-10 words or phrases, including research topics, the methods employed, and research settings.

Introduction/Background

The introductory/background section in the article should address several key aspects, including the rationale behind conducting the research, the people's existing knowledge and understanding within the field, the identified issues and the current understanding, the hypotheses that drive the research, and the intended message or findings to be conveyed to the reader. This section must contain solid, precise information as well as research questions and their answers. Overall, approximately 50% of references must be included in this section.

Research Materials and Methods

The materials and research methods section is the easiest part to commence with when writing an article since the researcher's recollection of the research steps undertaken remains vividly depicted. In this section, it is also necessary to write down the approval number obtained from the research ethics committee before collecting the research data.

It must be clearly and precisely presented so that the reader can repeat the research steps just by reading the section, while ensuring that no crucial information is omitted or missing. However, if standard procedures has been adhered to, it suffices to include the appropriate reference so the reader can trace it.

Results

The results section should summarize the data obtained from the research findings without discussing/interpreting their meaning and implications. This section must be presented briefly, clearly, and can be enhanced by tables, pictures, or graphs that are attractive and easy to understand. In addition, it must also be self-explanatory, meaning that the reader can understand it without having to read the narrative explanation.

Discussion/Results

The discussion section must contain interpretations of research findings related to existing theories and understandings when the research was conducted. Therefore the discussion section is the most difficult part to write because previously, students had to obtain information about all the results and statistical analysis, along with information from the previous studies to serve as comparative material.

The discussion section should compare many similarities and differences between the current research and previous studies with relevant topics. Approximately, 50% of the references are listed in the discussion section. This section also contains an explanation of the research limitations that may have implications for the conclusions and generalization of the research results. Based on these limitations, recommendations for further research can also be provided, but it is important to avoid suggesting inquiries that can be addressed individually.

The discussion section prioritizes creative thinking, the ability logical and focused reasoning, and the development of interpretation. This section reflects the student's ability to search relevant literature and mix it into systematic writing that conforms to scientific logic.

Conclusion

The conclusion section must be concise and meaningful so that it must be able to answer the question about the most important results of the research and, naturally, providing answers to the research objectives. The conclusion must contain information that the writer has proven his research hypothesis.

Conclusion is usually accompanied by operational suggestions/recommendations derived from the research findings. Do not make suggestions that seem out of the blue unrelated to the research findings. Furthermore, do not make suggestions as if without conducting the research, people already know about it. For example, "an advice for local governments is that they need to pay attention to the importance of the role of Posyandu (Integrated health service for child health) in preventing and overcoming nutritional problems". It is equally important to avoid providing insufficient operational suggestions that leave unclear guidance on actionable steps to be taken. For example: "It is suggested that nutrition installations improve the quality of their services". Furthermore, it is advisable to propose further research based on the limitations identified in the study and the variables that have not been examined to facilitate the development of future research that can yield better conclusions.

Acknowledgements

Acknowledgements should be written to all parties who have provided assistance for the completion of the research and writing process, in the form of names of individuals, organizations, or institutions/establishements.

References/Bibliography

References/bibliography must include all sources cited directly in the article. The existence of new or old references elicits varying perspectives regarding the article. When the article relies on dated references from several decades ago, it raises concerns regarding the possibility of other researchers having already reported on the research discussed in the article, which the authors might not have been aware of.

Conversely, recent references will increase a sense of assurance in the reader, indicating that the author is keeping up with the latest advancement in the field/topic being investigated and confirming that the topic is indeed the ongoing unresolved issue. The formatting of references/bibliography should be adapted to adhere to the specific guidelines provided by the targeted journal.

D. Rector's Regulation Concerning Authorship of Scientific Work Publication

Authorship refers to the arrangement of the author's name in a specific order for the publication of scientific work. The following are several things that need to be taken into consideration in scientific work authorship based on the Rector's Regulation of Universitas Gadjah Mada Number 16 of 2018 concerning Authorship for Scientific Work Publication. The scope of authorship includes:

1. Inclusion of the author's name from the findings of the research conducted by lecturers;
2. Inclusion of the author's name from the findings of the research conducted by lecturers **and the assisting students;**
3. Inclusion of the author's name who conducted the research, involving lecturers and the assisting students, **and utilized for academic degree purposes, where the lecturers do not serve as supervisors;**
4. Inclusion of the author's name from the findings of the research conducted by students;
5. Inclusion of the author's name from the findings of the research conducted **by students to obtain academic degrees,** with lecturers as supervisors; and
6. Inclusion of the author's name from the findings of the research conducted **by students, without the purpose of obtaining an academic degree,** with the lecturer as the supervisor.

A person who is listed as an author must have the following criteria:

1. Make a meaningful contribution to planning, drafting, data collection, analysis and interpretation of data;
2. Make a meaningful contribution to the preparation, revision and finalization of the manuscript; and
3. Responsible for the accuracy and integrity of writing scientific papers.

Authorship consists of the following:

1. The first author is the first writer in every scientific work;
2. Author members are the second writer and so forth in every scientific work;
3. The corresponding author is the primary writer or team member who takes responsibility for the correspondence; and
4. The primary author is the first writer and/or correspondening author.

The sequencing of author names in point 1-4 mentioned above is determined through a consensus among all researchers involved in the research before publication. The arrangement of author names can be documented through a written agreement.

The authorship from research findings whose ideas, funding, and writing are derived from the supervisors by involving students in the research process, which is used by the students to obtain particular academic degree can be described as follow:

1. Publication writing carried out by students, students become the first author, and supervisors may serve as member writers and/or corresponding authors;
2. Publication writing carried out by supervising lecturers or in collaboration with students, supervisors can be the first author, and students are included as member writers; and
3. Publication writing carried out by lecturers and is a summary of several research activities of the supervisors carried out by students, the main supervisor or lecturer who leads the research team become the first author, while students are listed as member writers.

Authorship of research results whose ideas/thoughts, funding, and implementation come from lecturers by involving students in the research process, but the lecturers concerned are not supervisors, and students utilize the research results to obtain certain academic degrees is regulated as follows:

1. Publication writing conducted by students, students become the first authors, non-supervising lecturers become the corresponding writers while supervising lecturers become the member writers;
2. Publication writing carried out by supervising lecturers together with non-supervising lecturers and students, the supervisors can be the first authors, the non-supervising lecturere can become corresponding author, and students become member writers; and
3. Publication writing carried out by non-supervising lecturers along with supervisors and students, the non-supervising lecturers can become the first authors, supervisors can become the corresponding author, and students become the member writers.

Authorship from research results where ideas, funding, and implementation carried out by students supervised by lecturers is regulated as follows:

1. The writing of publication is carried out entirely by students; students become the main authors and supervisors can become member writers after obtaining approval from the lecturer concerned; and

2. Publications writing conducted by supervisors and students; the students become the main authors, and the supervisors can be the corresponding authors.

Some other things that need to be considered in the authorship of scientific writing are:

1. Every lecturer and student must include the name of the university in every scientific publication;
2. The expression of gratitude must be written by including the correct and complete names as appreciation to individuals who have provided assistance in research or writing;
3. All writers share equal responsibility for ensuring the accuracy of the content in the writing;
4. Research data that has been published may not be republished in the same format in different articles, but they can be used to produce different findings;
5. Referrals to research data are made by taking into account the principles of correct references to avoid plagiarism.

Reference

Abdullah, M. 2004. Menembus jurnal ilmiah nasional & internasional: petunjuk ringkas dari penulisan paper hingga koreksi proof. PT Gramedia Pustaka Utama, Jakarta.

Clanchy, J. & B. Ballard. 1996. Essay writing for students: a practical guide. Addison Wesley Longman Australia, Brisbane.

Indriati, E. 2005. Menulis karya ilmiah: artikel, skripsi, tesis, dan disertasi. PT Gramedia Pustaka Utama, Jakarta.

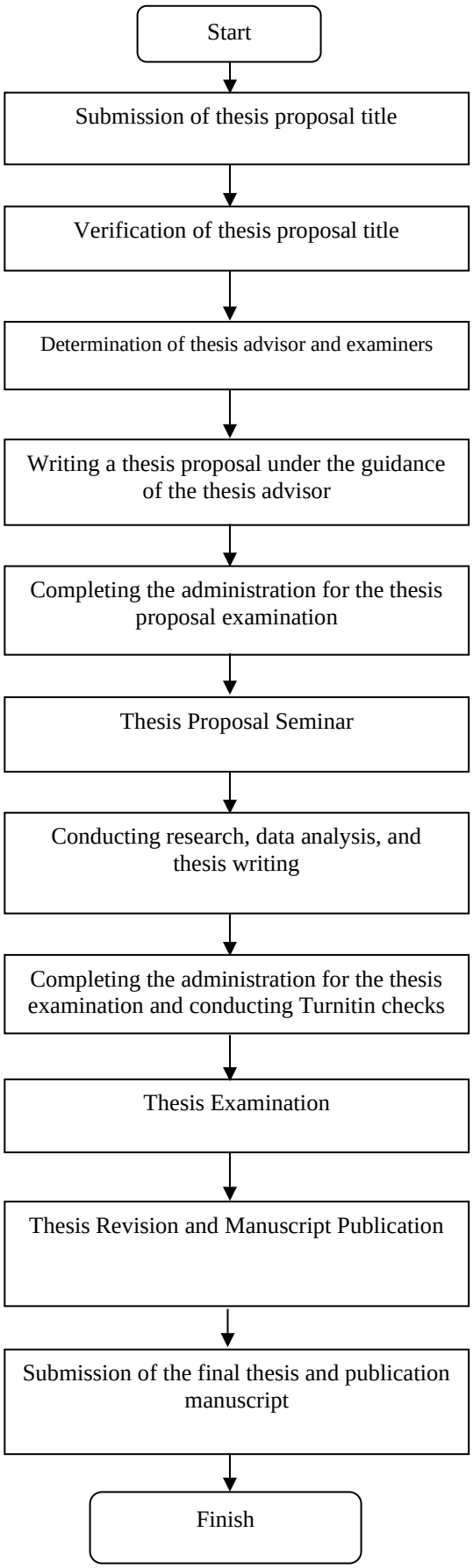
Indriati, E. 2007. Kaidah penulisan karya ilmiah: dari proposal ke publikasi. Makalah dipresentasikan pada workshop penulisan artikel ilmiah bagi staf edukatif FK UGM, 10-11 Mei, Yogyakarta.

Panduan Penyusunan Tesis. 2005. Program Pascasarjana Ilmu Kesehatan Masyarakat Fakultas Kedokteran Universitas Gadjah Mada, Yogyakarta

Peraturan Rektor Universitas Gadjah Mada Nomor 16 Tahun 2018 tentang Authorship Publikasi Karya Ilmiah dalam https://hukor.ugm.ac.id/download/peraturan-rektor-ugm-nomor-16-tahun-2018/ [diakses: 17 April 2023].

QS Asia University Ranking. 2023. Tersedia dalam https://www.topuniversities.com/university-rankings/asia-university-rankings/2023 [diakses: 15 Mei 2023].

APPENDIX 1. Flowchart of Writing Proposals, Thesis, and Publication Manuscript



1. The student submits their thesis proposal titles to the student affairs department to obtain approval from the verification team/team managing the study program. Verification includes the title, thesis advisors, examiners for the respective students, and the advisor's workload.
   Guidelines for selecting advisors:
   One advisor can only supervise up to 8 students' theses, whether as the primary advisor or co-advisor.

2. The academic department publishes the verified thesis titles, thesis advisors, and examiners and provides thesis guidance cards.

3. Thesis guidance cards are used to record and monitor the proposal writing, research implementation, research findings writing, and advising activities (at least 4 advisory sessions with each Thesis Advisor).

4. The thesis proposal seminar can be conducted after approval from the thesis advisor. The proposal seminar takes place one week after approval by the advisor and must be registered to the academic department. The proposal seminar is attended by the primary advisor, co-advisor, examiners, and a minimum of 5 other students.

   Research can be conducted after the proposal is approved by the thesis advisor. Subsequently, the student submits one copy of the proposal to the academic department. If required, research permits and a referral letter for the Ethics Committee can be obtained from the academic department.

5. The research, data analysis, and writing of the research report are carried out under the guidance of the thesis advisor.

6. The students who have received approval from the Thesis Advisor to take the examination can register with the academic department one week before the examination by meeting the following registration requirements:
   i. Thesis guidance card with a minimum of 4 sessions with each Thesis Advisor.
   iv. Approval and registration form for the thesis examination.
   v. Minimum grade of C for the Research Methodology course.
   vi. No E grade and has a maximum D grade of 20% of the total credits

7. The thesis examination takes place in the Nutrition Program classroom and must be attended by the thesis advisors and examiners. Students must wear a long-sleeved white shirt with a tie and dark-colored bottoms.

   The assessment results, which are a summary of scores from the 3 examiners and the thesis guidance card, are submitted to the academic department.

8. Students can register for the graduation process if:
   i. They submit a copy of the thesis to each thesis advisor (with acknowledgement of receipt from the advisor).
   ii. They submit one revised and bound copy of the thesis and publication manuscript to the library.
   iii. They submit a CD containing the thesis and publication manuscript in PDF format to the library and the Nutrition and Health Study Program.
   iv. They submit evidence of document submission for items i-iii to the academic department.

APPENDIX 2. Writing Format for Table of Content

CONTOH DAFTAR ISI

APPENDIX 3. The Form Anti Plagiarism in the Thesis

Example of a statement affirming that no plagiarism was committed

STATEMENT

I hereby declare that in this thesis:

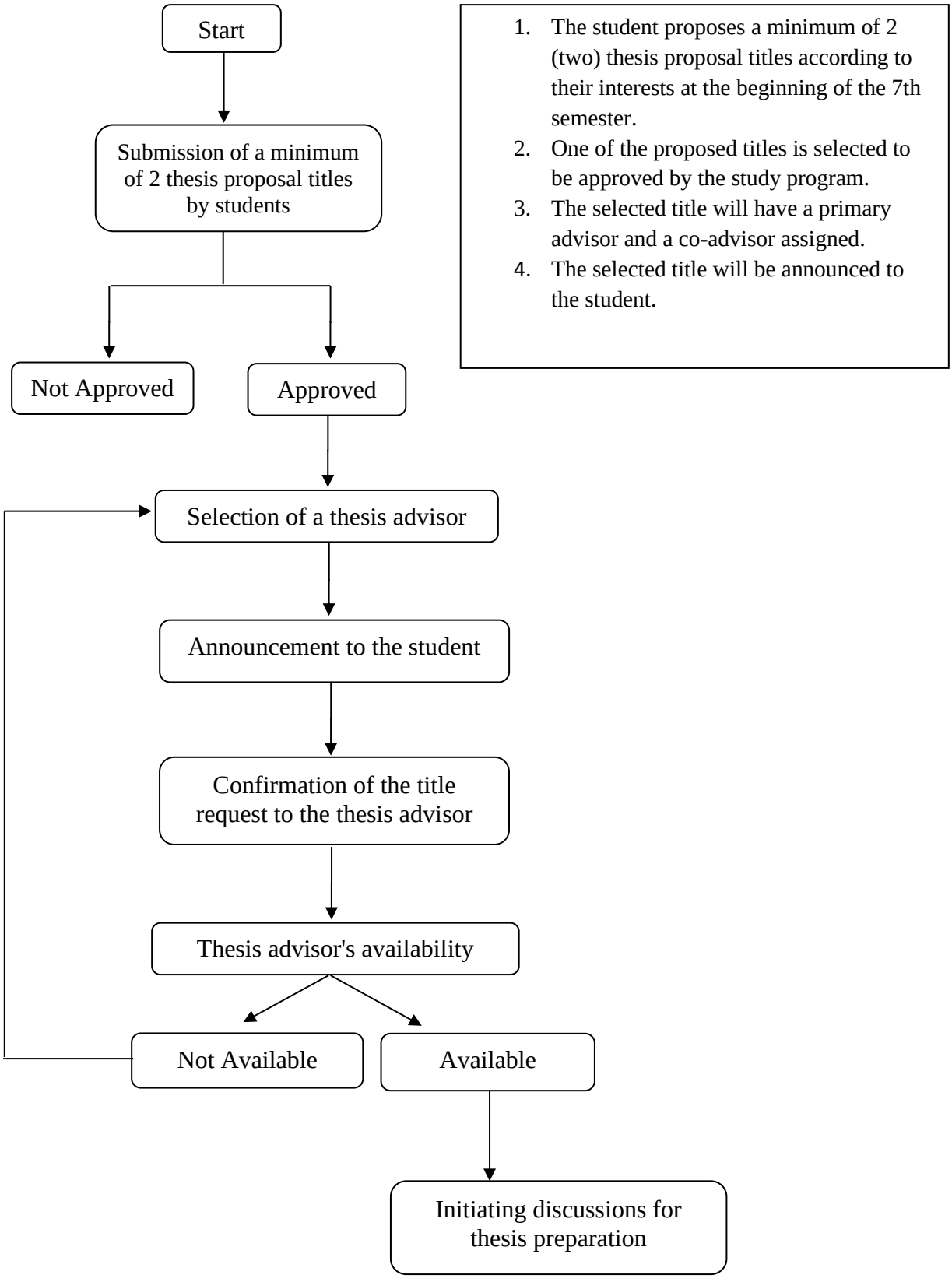
1. There is no work that has ever been submitted to obtain a bachelor's degree at any university, and to the best of my knowledge, there is also no work or opinions that have been written or published by others except those referenced in writing this manuscript and listed in the bibliography.
2. The plagiarism check has been conducted using Turnitin and has been declared clear with the attached proof of verification/certificate.

Yogyakarta,

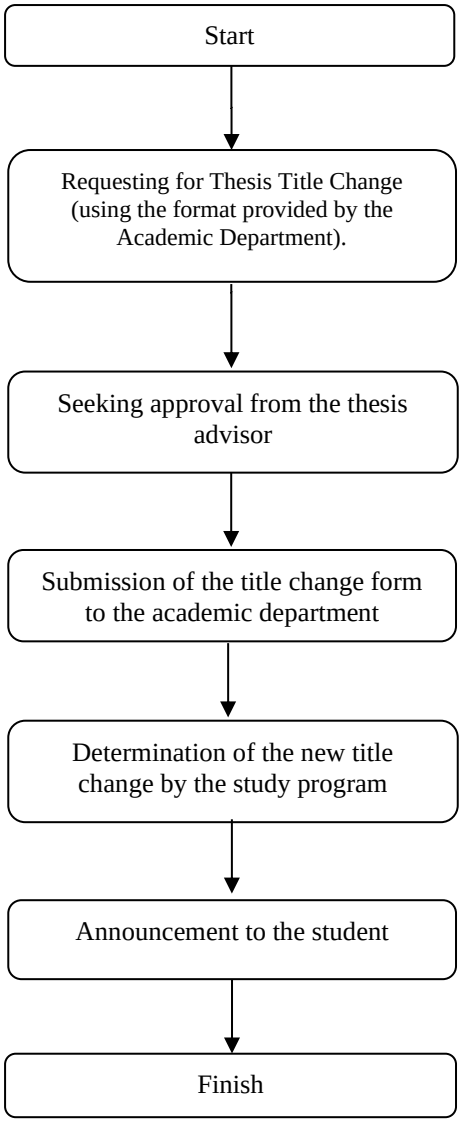
(Full Name)

APPENDIX 4. List of Standard Operating Procedures for Thesis Writing for Student

a. Submit a Thesis Proposal Title Procedure

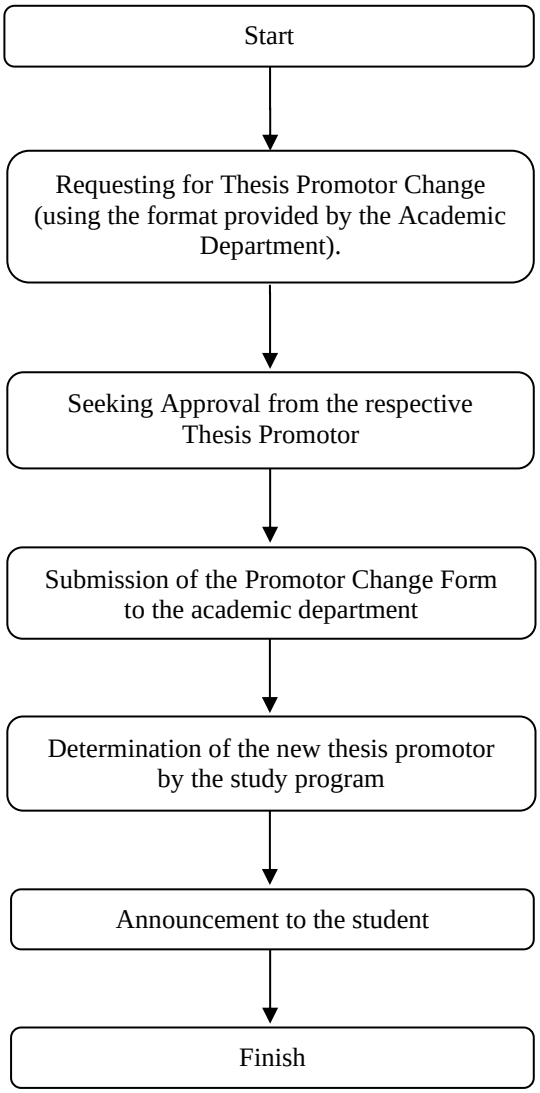


b. Change of Thesis Title Procedure



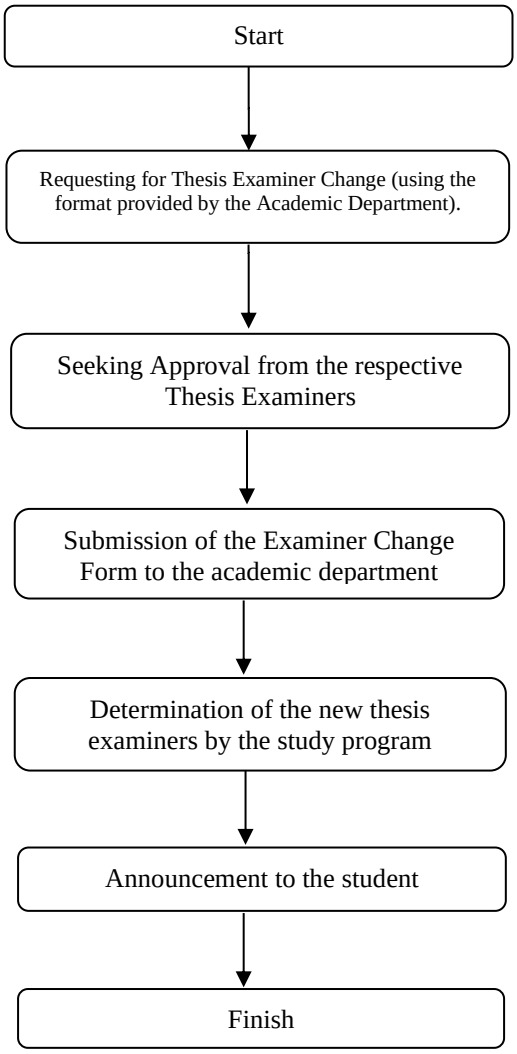
1. Changing the thesis title is allowed with the approval of the primary advisor and co-advisor.
2. The student submits a request letter for the title change addressed to the Head of the Study Program, with the knowledge of the primary advisor and co-advisor.
3. The study program determines the title change for the respective student.

c. Change of Thesis Promotor Procedure



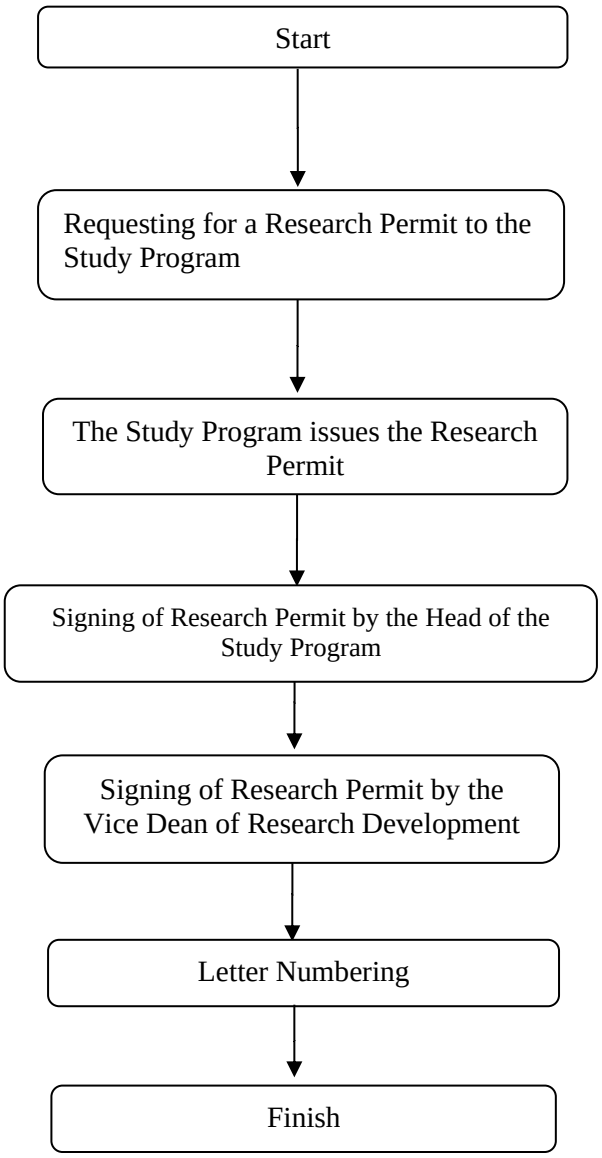
1. Thesis promotors can be changed if they are currently on study leave.
2. The change of thesis promotor can be conducted with the approval of the respective promotor.
3. The student submits a request letter for the thesis promotor change addressed to the Head of the Study Program, with the acknowledgement of the respective promotor.
4. The study program appoints a replacement promotor.

d. Change of Thesis Examiner Procedure



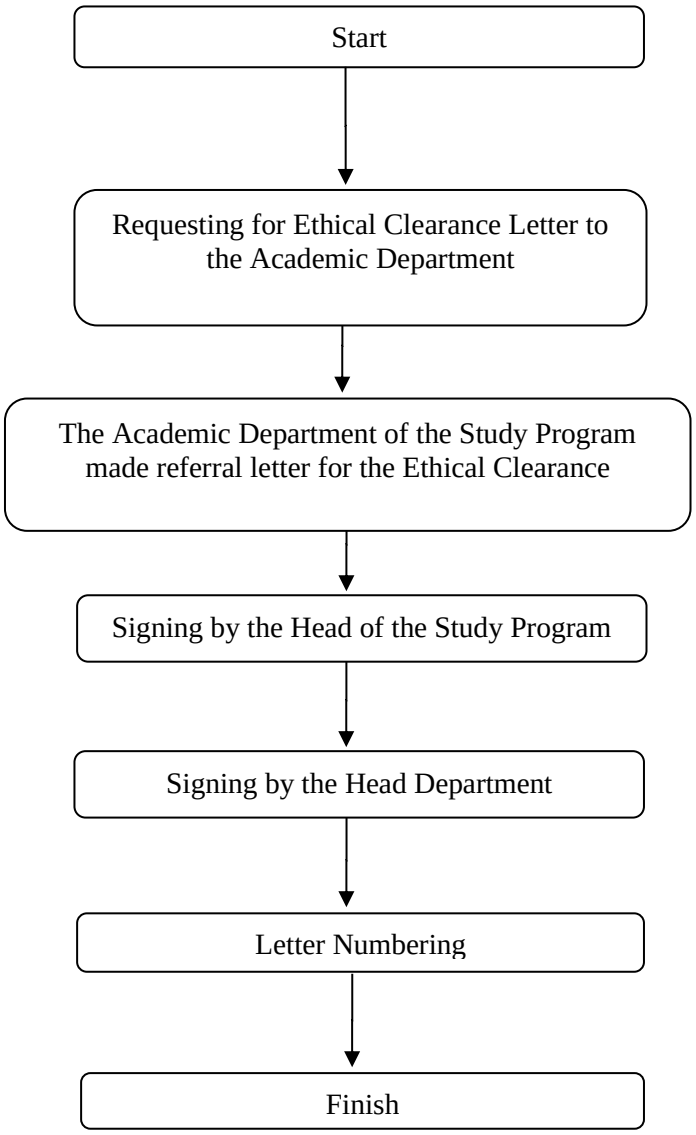
1. An examiner can be replaced if they are currently on study leave or unwilling to serve as an examiner (decline availability).
2. The change of thesis examiner can be done with the approval of the respective examiner through a statement of willingness to examine.
3. The student submits this letter to the Study Program.
4. The Study Program appoints a replacement examiner.

e. Research Permit Procedure



1. Student requests for a research permit to the academic department of the study program
2. Students submit a research proposal that has been approved by the supervisor
3. The academic department of the study program issues a permit letter and submits it to the Faculty to be signed by the Vice Dean of Research and Development.
4. The Vice Dean of Research and Development signs the research permit
5. The letter is returned to the academic department of the study program
6. Student obtains the approved research permit from the academic department

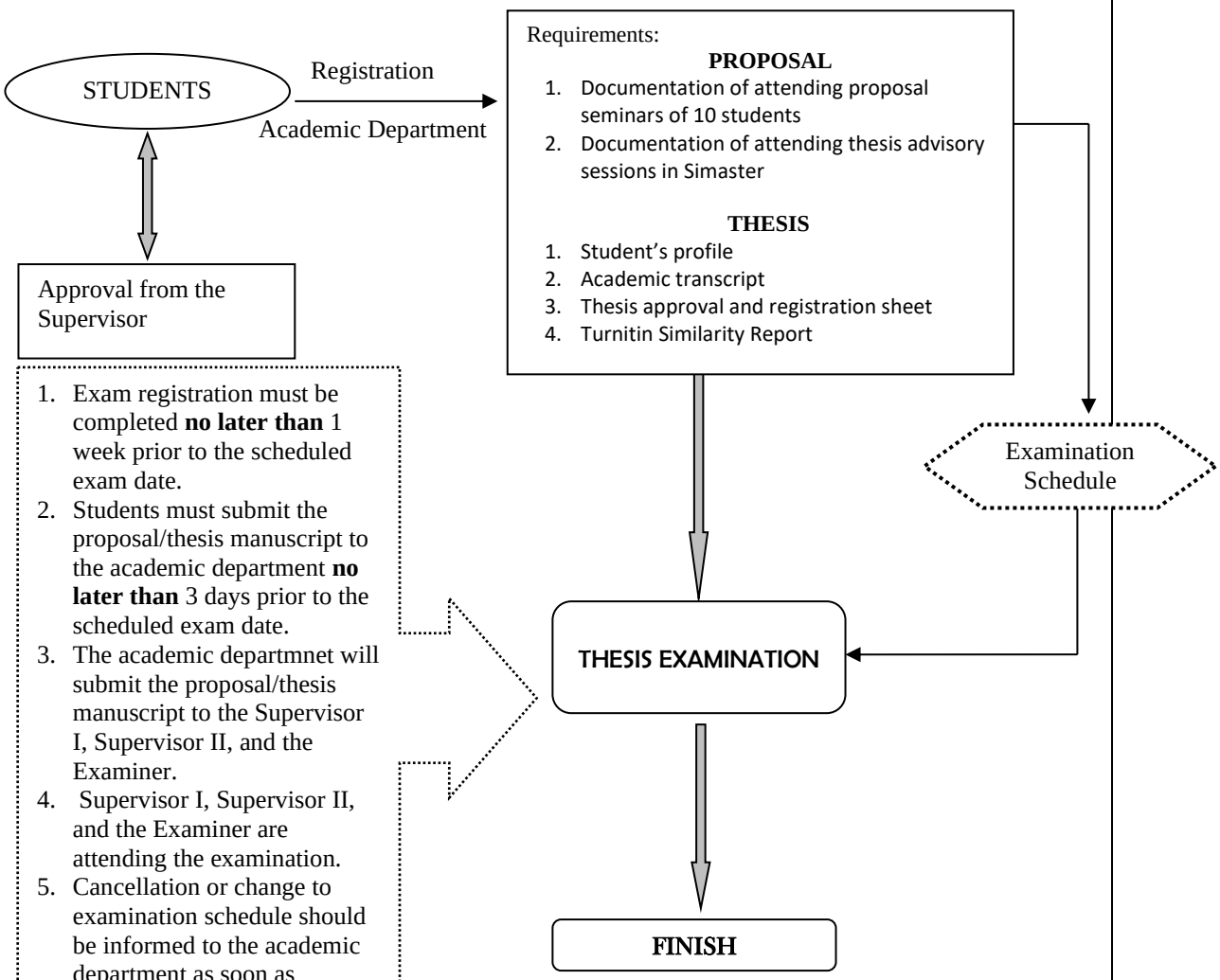
f. Ethical Clearance Procedure



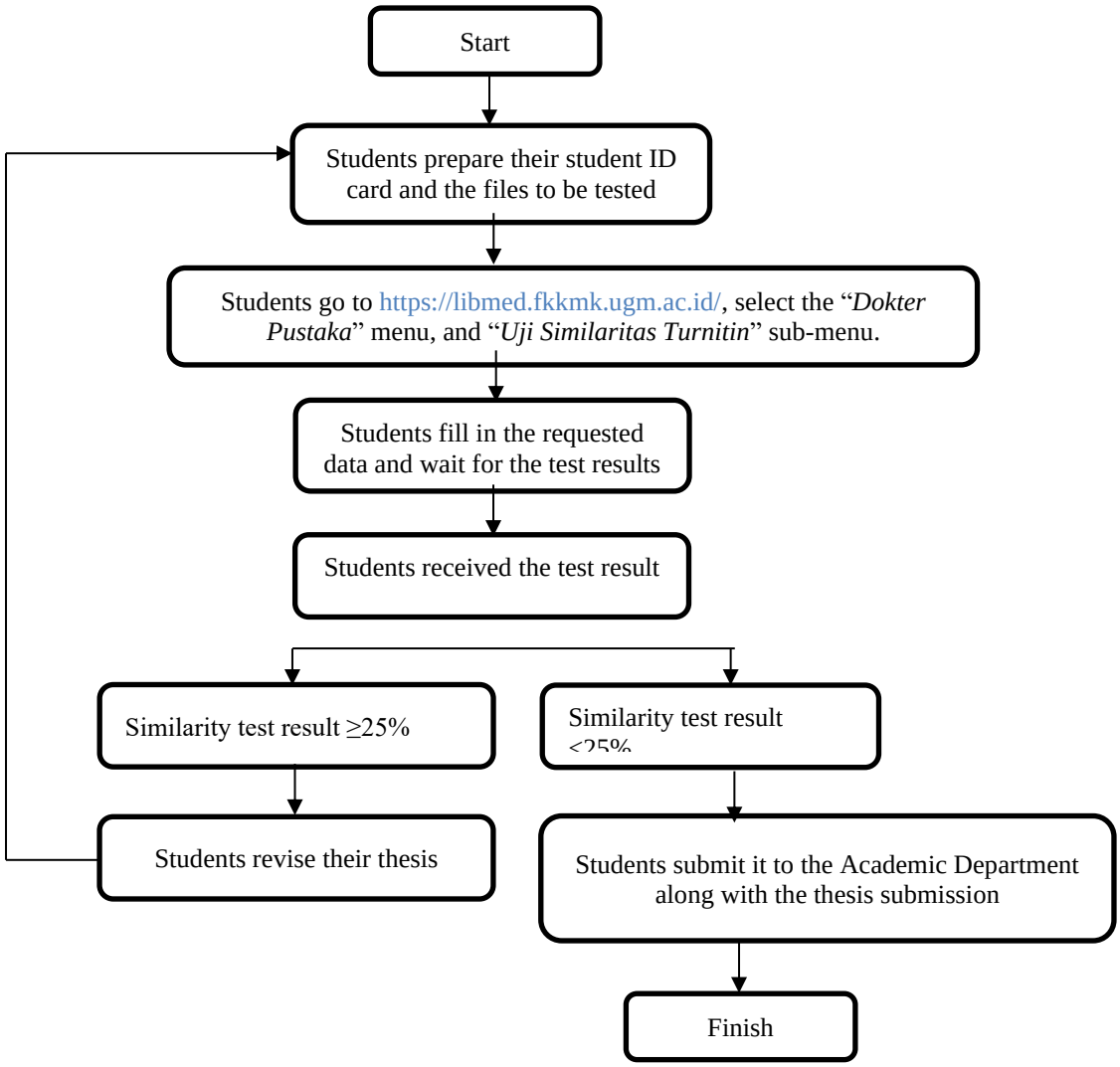
1. Student apply for an ethical clearance referral letter to the academic department of the study program.
2. Student submits a research proposal that has received approval from their supervisor
3. The academic department of the study program makes a referral letter and submits it to the Head of the Nutrition and Health Department for approval.
4. The Head of Department signs the referral letter for the ethical clearance submission
5. Students obtained a referral letter for the ethical clearance request in the academic department

g. Flow Chart of Proposal and Thesis Examination

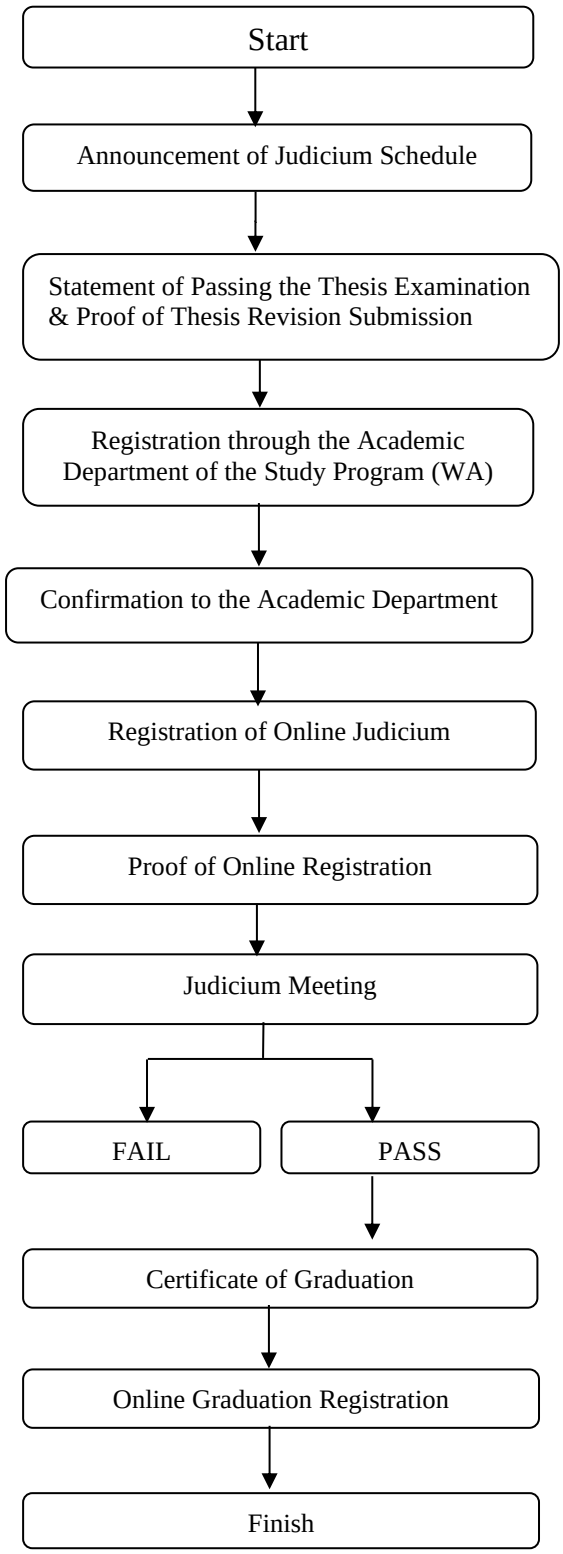
PURPOSE:
To provide students with guideline in carrying out proposal seminar and thesis examinations.



h. Turnitin Plagiarism Checking Procedure



i. Registration & Conduct of Judicium



1. Judicium is scheduled 4 times a year, which can be seen on the Academic Department‘s bulletin board.
2. Students registering for judicium need to follow the schedule set by the Study Program (for example: the deadline for thesis examination within the designated Judicium period).
3. Students registering for Judicium must have successfully completed the thesis examination and submitted a revised thesis manuscript.
4. Students can register for Judicium online to the Academic Department of the Study Program at 0852-2880-9107, after which they will be invited to the Judicium Whatsapp group.
5. Students register for judicium online in accordance with the available forms. Judicium registration requirements can be seen in the online form.
6. Students who have successfully registered online will get confirmation via email which must be submitted to the academic department.
7. **Students are required to attend the Judicium Meeting on a predetermined schedule at 10.00 a.m.** (Participants are Required to Arrive Punctually Dressed in Black and White Attire, Including Almamater Robes)
8. **The Judicium Meeting will declare the student's graduation in accordance with the graduation requirements of the Bachelor of Science in Nutrition (S.Gz):**
   - Grade Point Average (GPA) ≥ 2,50
   - No “E” grade
   - Has a maximum D grade of 25% of the Total Credit
   - Complete thesis revision
   - Pass professional behaviour assessment
9. Students who are deemed to have graduated in the judicium meeting will receive Certificate of Graduation to be used in the online graduation registration process in UGM. (http://simaster.ugm.ac.id/).