

## I. DOCUMENTATION OUTLINE

- a. Title Page
  - b. Acknowledgement
    - ✓ This section recognizes persons and organizations who/which assisted the proponents in the completion of the research. Acknowledgements should be expressed simply and tactfully.
  - c. Dedication
    - ✓ This page is optional. If used, make it brief and centered in one page. No heading is necessary.
  - d. Abstract
    - ✓ This is a brief and concise descriptive summary of study containing the statement of the problem, methodology, major findings and conclusions.
    - ✓ The first paragraph must be single-spaced. It must contain the candidate's name as it appears on the title page, but with the last name first, the abbreviation of the course, the date (last month of the semester in which the student completes the degree), title of the document (working exactly to agree with the Title Page), and name of the adviser.
    - ✓ The abstract should not be more than 150 words, and should be typed single-spaced and preferably on a single page. Normally the abstract does not include any reference to the literature.
  - e. Table of Contents
    - ✓ A sequential listing of all major parts of the research with corresponding page numbers. Included in the table of contents are titles of chapters, sections and subsections, bibliography and appendices. Also included are titles of the preliminary pages as well as the required forms.
    - ✓ All materials following the Table of contents are listed.
    - ✓ The title of parts, sections or chapters and their principal subdivisions should be listed and must be worded exactly as they appear in the body of the document.
  - f. List of Tables/figures/Appendices
    - ✓ The heading LIST OF TABLES, FIGURES and APPENDICES in capital letters, are centered without punctuation; the listing begins at the left margin on the fourth line below the heading.
    - ✓ The list of Tables/Figures/Appendices uses exactly the same numbers and title of the Tables/Figures/Appendices in the text.
  - g. Main Body
    - ✓ This is the main text of the project document, divided into chapters and sub-topics. It normally starts with the "Introduction" and ends with the "Summary, Conclusions and Recommendations".
1. Chapter 1: Introduction

This chapter serves as a backgrounder for readers to have an overview of the study even without prior reference to other publication so the topic. The introductory pages are important because they create the first and perhaps lasting impression on the examiner. Use flow diagrams, headings, sub-headings etc., to create and sustain interest. Lead the reader from the known to the unknown. Parts of the introduction are the following:

    - 1.1. Project Background
      - It includes information necessary to justify the existence of a problem situation/need/gap like statistical data from authoritative sources.

- This section describes the context surrounding the project and presents the primary motivation for the project. It includes a high-level description of the business area, the current situation, the desired situation and the gaps that exist.
- The following list identifies potential items that could be included in the project background:
  - A general description of the business functions, the specific services and the customers.
  - The specific company/corporation/institution on which the study is being conducted. A brief history, organization, some statistics (e.g. number of employees, locations/branches, etc.) products and/or services, etc.
  - A general and brief description of the system under study.
  - The sequence of events or conditions that contributed to the current problem or opportunity;
  - Contributing historical data;
  - Relevant features of the program areas involved;
  - The manner and extent to which information technology is currently applied; and,
  - A definition of the effected units of work and estimates of the quantity of work processed.

## 1.2. Statement of the Problems

- 1.2.1 General Problem
- 1.2.2 Specific Problems

## 1.3. Objectives of the Study

### 1.3.1 General Objective

- This is a statement that states what the research or thesis project is trying to accomplish

### 1.3.2 Specific Objectives

- These are statements that try to achieve the general objective. Specify the things that would be done to accomplish the general objective.
- Objectives are statements of WHAT the project is expected to accomplish. Each objective should be stated to describe what is to be done. Since objectives are associated with action, they usually start with action verbs.
- Starting project objectives:  
The study aims to ...
 

develop	conduct	assess
design	implement	enhance
produce	train	strengthen
acquire	improve	evaluate
- A satisfactory objective should be specific, measurable, attainable/achievable, realistic and time-bounded. It should be stated to include the following information:
  - An action verb;
  - The outcome to be accomplished;
  - The time-frame the outcome is to be accomplished; and
  - The criteria or conditions for measuring the accomplishment.
- Few objectives should be considered in a proposal and they should be arranged in their order of importance. It is more likely that few objectives can be successfully accomplished given the available resources.
- Objectives must always relate to the expected outcomes or project outputs. Moreover, objectives determine the methodology – how each objective is to be accomplished.
- Objectives are normally classified as general and specific. General objective states what the research or thesis project is trying to accomplish. Specific objectives are statements that try to achieve the general objective.
- Analysis of the objectives:

Criteria	Justifications
Specific?	Yes! Because the objectives state particular, precise and definite details about the project

Measurable?	Yes! Because the objectives state weighable (80%) indicator to measure the success of the project
Attainable?	Yes! Because the procedure, function and integration of GRS and POS is feasible and within reach
Realistic?	Yes! Because the objective states practical and viable methodology
Time-bounded?	Yes! Because the objective states the time when the system will be accomplished

#### 1.4. Significance of the Study

- Describe general contribution of the project to new knowledge, society and or to development in general.
- A discussion on who benefits from the output of the research or thesis project
- Cite significance of the project to:
  - Individuals
  - Corporations
  - Country
  - World or humanity in general
- Enumerates the problems that may be solved by the output of the study.

#### 1.5. Scope and Delimitations

- This element goes hand-in-hand with the project objectives. The scope sets the boundaries on the project so it can be done successfully. The project boundaries are defined by specific customer business areas to be supported, functionality to be included, and/or technologies to be addressed. If the project needs to be accomplished in phases, the specific boundaries for each phase should be stated here.
- Discusses the boundaries of the system to be developed.
- Enumerates items that will not be covered by the study.
- Gives a general view of the features/characteristics of the output of the system.
- Assumptions made about certain things stated in this section.
- These are statements of what can be taken for granted about research project.
- It is often beneficial to clearly state what the project does NOT include to help identify the project boundaries.

#### 1.6. Documentation of the Current System

This section should provide necessary information on the current situation/system such as its nature, its description, users/beneficiaries, etc.

##### 1.6.1. Description of the Current System

- Complete discussion of the different processes and procedures involved in the system must be presented in this section. The physical environment and layout of the system must be properly described and discussed in this section. Problems and issues experienced in the current system must also be cited.
- Specific analysis tools should be used to illustrate the existing system and the requirements of the project. The analysis tools that may be used are:
  - Hierarchical Input-Output (HIPO) Charts
  - Data Flow Diagrams
  - Entity-relationship Diagram
  - System Flowchart

##### 1.6.2. Hardware and Equipment Setup

- This section enumerates and discusses the purpose and function of the different hardware resources and equipment used in implementing and executing the current system. Physical layout of the equipment must also be provided in this section.

##### 1.6.3. Software and Applications being used

- This section enumerates and discusses the purpose and function of the different software resources and applications used in implementing and executing the current

system. Tools and applications used as support in generating reports, storing of data and other system activities must also be cited.

#### 1.6.4. Personnel

- Users and other personnel involved in the current system must be properly identified and discussed in this section. Responsibilities and functions of such must also be presented.

#### 1.7. Definition of Terms

- Only important terms from the title, statement of the problem or objectives and paradigm should be defined.
- Define term operationally or how you use such term in the project.

### 2. Chapter 2: Project Framework

- It is advisable to use either theoretical or conceptual framework. If both theories and concepts are used, then the title Theoretical Framework should be adopted since theory always includes constructs or concepts.

#### 2.1. Theoretical Framework

- Link the study with existing theories that are useful devise for interpreting, criticizing and unifying established scientific laws or facts that serve as guide in discovering new generalizations.
- Be explicit as to whether an existing theory will be verified or another theory will be developed or proposed; Always indicate the title/name of the theory/theories including its author, what the theory is all about and indicate applicability to the study.
- This part is optional for biological/physical sciences, technology, agriculture and forestry because this is presented as part of the Review of Literature.

#### 2.2. Conceptual Framework

- Present specific and well-defined constructs, assumptions, expectations and beliefs that support the research study.

#### 2.3. Project Diagram

- A diagram that illustrates the relation of the variables of the study. This may take the form of (1) input-process-output; (2) the true system approach; (3) flowchart system.

#### 2.4. Review of Related Literature

- The Review of Literature showcases previous studies and publications relevant to the project.
- This chapter gives light as to what motivated the proponent/s in pursuing the specific field of study.
- Include a combination of literature and studies within the last 10 years except for theories.
- Organize thematically to conform to the variables of the specific problems.
- Follow proper documentation using parenthetical citation with author and date.
- Only articles with dates are allowed as e-references.
- Secondary sources should be limited to at most 15.
- Highlight major findings and how one's project would fit in the body of knowledge on the subject matter and make a critique per topic as to whether the results cohere or differ from each other.
- Literature or background of the study will:
  - Reveal investigations similar to your study, how other researchers approach the problem.
  - Suggest method or technique of dealing with problems...suggests approach and strategies.
  - Reveal sources of data.

- Reveal significant research personalities
    - See your study in historical/associative perspective
    - Provide new ideas and new approaches
    - Assist you in evaluating your own research effort
    - Provide information on what is current in terms of similar technologies or solutions to a particular problem domain
  - The last part should be a clinching paragraph to show how the literature has assisted the project proponent in the present study.
3. Chapter 3: Methodology
- 3.1. Project Design
- Specify, describe and justify the appropriate project design congruent with the purpose of the study.
- 3.2. Population and Locale of the Study
- Population/Participants
    - Describe the population of the respondents or participants of the study. If there are two groups or more, present it in a tabular form.
    - If applicable, describe the basis of the sample specifically what formula, specific sampling procedure and what probability level. Lynch formula for sampling is suggested.
  - Local of the Study
    - Describe the place or location where the study is conducted and rationale of the choice.
- 3.3. Data Instrumentation
- Identify and describe the instrument or approach to be used for each descriptive problem, cite sources, to whom it will be administered, how it will be administered and how to interpret.
  - Validity. Identify and describe the process of measuring and proving the validity of the instrument.
  - Reliability. Identify and describe the process of measuring and proving the reliability of the instrument. If the instrument is made by the project proponent, a pilot test should be done with the respondents whose characteristics are parallel to those of the main and present/describe the level of reliability.
  - Only data collected two (2) years immediately before the final examination are considered valid.
  - Give details of instruction given to assistants if persons other than the researcher gathered data.
  - State qualifications of informants if used in the study.
- 3.4. Data Analysis
- Identify and justify the statistical treatment per objective.
  - Present and justify the scale of values used and the descriptive equivalent ratings, if any.
  - In case of the IT project, e.g. software/systems development, present and discuss the software/systems development process used. Include justification why such is used.
4. Chapter 4: Results and Discussion
- Order of discussion is based on the chronology of the statement of the problem/objectives.
  - First give the reader a feel of the data through descriptive presentation followed by data presentation in tables or graphs. Presentation of data is from general to specific, macro to micro is better for clarity of presentation.
  - Let the table speak for itself.

- State statistical descriptions in declarative sentences, e.g. in studies involving comparison  
– state the obtained statistical results, indicate the level of significance of the differences then make a decision.
- For the presentation of the IT project and its discussions, the following may be used:
- For software systems development, discussion shall include but not limited to:
  - Description of the Project
  - Requirements (Functional and Non-functional)
  - Design of Software, Systems, Product and /or Processes encapsulated using any appropriate CASE tools
  - Development and Testing, where applicable

#### 5. Chapter 5: Summary, Conclusions and Recommendations

This is the last chapter and the most important part because it is here where the findings and the whole project for that matter, are summarized; generalizations in the form of conclusions are made; and the recommendations for the solution of problems discovered in the study are addressed.

- a. Summary – This part includes the statement of the problem/objectives on a paragraph form; synthesized methodology and salient findings for each of the specific problems/objectives presented in paragraph form.
- b. Conclusions – These are generalized statement from a micro to macro level based on the answers to the general problems and each of the specific problems/objectives. General inferences are presented which are applicable to a wider and similar population.
- c. Recommendations - These should be based on the findings and conclusions. Recommendations should be feasible, workable, flexible and adaptable in a non-technical language and may include suggestions for further studies.

h. Proponent's Profile – Your resume.

i. Bibliography

## II. MAIN DOCUMENTATION GUIDELINES

All documentation should adhere to the following standards:

### A. Margins

Left	- 1.5"	Right	- 1.0"
Top	- 1.0"	Bottom	- 1.0"

### B. Font

Text - Calibri, size 12, font style is regular (use *Italics* or single underline in emphasizing some text)

Headings or subheadings - Calibri, size 12, **Bold**

### C. Spacing

- Double space

### D. Footer

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<Project Title>

<page>

\*You may used the alphabet style in the footer section

### E. Pages

Follow the topic numbering shown in the document outline.

Example:

1.5 Scope and Delimitation

<**School Name**>

<School Address>

**<Project Name/Title>**

A Thesis Presented to

<**school name**>

In Partial Fulfillment of the

Requirements for the Degree of

Bachelor of Science in Computer Science (BSCS)

Proponents:

<Name 1>

<Name 2>

Month Year (i.e. JANUARY 2022)