

MABALACAT CITY COLLEGE

# RESEARCH



# MANUAL

FOR UNDERGRADUATE STUDENTS



2021

EDITION



## **PREFACE**

The Mabalacat City College Research Manual for Undergraduate Students embodies the intricate research manuals of every MCC Institute; it magnifies the selection guidelines, fees, and processes of the research flow. This Research Manual paves the way into innovation and adoption of more upgraded research procedures and techniques as this College revamps its educational system.

This Manual will be revised accordingly as the policies of the College evolve and an updated version will be available to the faculty in hard copies and soft copies via the MCC website.

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### ***CHAPTER 1: Background of the Study***

This section contains the rationale regarding the need to conduct the research. Specifically, this chapter contains the following sub-parts:

- **Introduction**

This section provides the background and aim of the research to be conducted. This demonstrates the in-depth understanding and knowledge of the researcher/s on the research problem supported by the findings and recommendations from previous researches and literature.

- **Literature Review**

This section contains the related literature and studies that are considered as relevant to the present study. In writing the literature review, researchers should take note of the year the literature was published, or the studies were conducted. A literature synthesis is included at the end of the chapter which explains the difference/s between the reviewed studies or literature to the present research problem.

- **Theoretical and/or Conceptual Frameworks**

The purpose of this section explains the specific gap or problem the researcher/s found from the previous researches. This section should also explain how the researcher will address this gap narrowing to the specific purpose, problems, or objectives of the study.

The use of theoretical and/or conceptual framework depends on the research design to be used in the study. Researches intended to develop theory, testing theory, or application of theory utilizes the theoretical framework. The theories that serve as the backbone/framework of the study is explained in this section. While for non-theoretical research, a conceptual framework is applicable. The conceptual framework explains the variable/s that are included in the study based on the review of the literature.

- **Statement of the Problem or Research Objectives**

Specific research problems or objectives are clear, logical, measurable, and feasible in terms of human, material, financial, and time resources.

- **Significance of the Study**

In this section, the researcher explains the significance of the research. It emphasizes the area/s where the output of the aforementioned is significant.

- **Scope and Limitations**

This section explains the boundaries of the research problem in terms of the locale of the study, respondents/participants/subjects, the period of the conduct of the research, and the factors that are beyond the control or limitation of the researcher/s could affect the results of the study.

- **Definition of Terms**

This section defines the conceptual and operational definition of important terminologies that appear in the study.

### ***CHAPTER 2: Method***

This section on methodology describes in detail how the study was conducted. It includes the research design, research locale, the sample, instruments, the data collection procedure, ethical considerations and data analysis procedure. Research design is a description of the conditions for data collection and analysis. It may contain sub-sections such as the research design, characteristics of the participants,

sampling procedures, measurement approaches, etc. However, in qualitative research, methodology may talk about the philosophical underpinning and the qualitative tradition and design used in the study.

- **Research Design**

Research designs are quantitative and/or qualitative. Examples of quantitative design are methods that employ survey, descriptive, and experimental designs. Examples for qualitative designs are ethnographic, phenomenological, grounded theory, and case study designs.

- **Research Locale**

This discusses the place or setting of the study. It describes in brief the place where the study is conducted. Only important features which have the bearing on the present study are included. Shows the target population.

- **Subjects/ Respondent/ Participants**

- **Subjects:** are the people in the researcher's experiment - usually quantitative research. (Example: in a medical experiment the control group of 10 subjects did not receive the medicine, while the experimental group of 10 subjects received the medicine.) A subject is a term used more in science. A subject is generally a more passive term (Example: Ten subjects were given the behavior therapy.)
- **Respondents:** answer (respond/reply to) questionnaires - usually quantitative research. Respondents generally answer (respond/reply to) the questions asked by the researcher - no more, no less.
- **Participants:** participate and answer questions in qualitative studies (eg. interviews and focus groups). Because qualitative studies are more in-depth than quantitative, the participant in qualitative studies contributes more (is more active) than respondents to a survey or subjects in an experiment. The participant generally gives much more detailed answers than a respondent would in a survey.

- **Sample**

This describes the sample profile, sample size and sampling procedure.

Describe the procedures for selecting participants, including (a) the sampling method, if a systematic sampling plan was used; (b) the percentage of the sample approached that participated; and (c) the number of participants who selected themselves into the sample. Describe the settings and locations in which the data were collected as well as any agreements made to participants.

- **Instruments**

A description of the adoption, construction, and administration of instruments should be included. Instruments include tests, questionnaires, interview guidelines and/ or schedules, etc. Validity and reliability of the instruments should be considered. Computers, apparatuses, devices, and laboratory equipment's used shall be described. In the case of complex or custom-made equipment, a drawing or photograph is recommended.

- **Data Collection**

The procedures followed in conducting the study should be explained in complete detail. Techniques, devices, and procedures should be described. In case of experiments, this section should include instructions given to the participants, the formation of groups, the experimental manipulations, and control features in the design.

Any errors or weaknesses in the procedures that have been discovered during the conduct of the research should be pointed out, and any consequent limitations upon the research results should be fully noted. A flowchart showing the series of activities can effectively illustrate collection and even data analysis.

## **Ethical Consideration**

It is imperative that ethical issues are considered during the formulation of the evaluation plan. Ethical considerations during evaluation include:

- **Informed consent** means that the person participating in the evaluation is fully informed about the evaluation being conducted. Participants need to be made aware of the purpose of the project, who or what group is funding it, how the findings will be used, if there are any potential adverse impacts of their participation and who will have access to the findings. The main purpose of informed consent is that the participant can make an informed decision as to whether they will participate in the evaluation or not. Additional information should also be provided if the participant becomes distressed in any way during their participation.
- **Voluntary participation** means that people participate in the evaluation free from coercion. Participants are free to withdraw their participation at any time without negatively impacting on their involvement in future services or the current program and relationships with any of the researchers or research bodies involved. It can be challenging to encourage high risk youth to become engaged in a program and it is therefore difficult when participants choose not to continue in a program. It is the right of participants to leave a program of this nature at any time; therefore, no pressure should be placed on those who choose not to continue. Explanations are also not required.
- **Do no harm**, harm means can be both physical and/or psychological and therefore can be in the form of stress, pain, anxiety, diminishing self-esteem or an invasion of privacy. It is imperative that the evaluation process does not in any way harm (unintended or otherwise) participants.
- **Confidentiality** means that any identifying information is not made available to or accessed by anyone but the researcher and head of the program/unit. Confidentiality also ensures such identifying information is excluded from any reports or published documents. Given that there are often small numbers in peer-based programs, it is very important to consider how reports are worded to ensure that there is no opportunity for people to be identified even though names are not used.

Anonymity is a stricter form of privacy than confidentiality, as the identity of the participant remains unknown to the research team. This is more difficult to achieve than confidentiality as participants in the context of social research are usually known to the program coordinator.

- **Only assess those components** that are of relevance to the program/initiative being conducted. High risk populations are sometimes being used as guinea pigs or a captive audience to ask all sorts of questions in evaluations that are of interest to groups conducting the program/initiative but not relevant to the program nor will be to the group who are involved in the program. It is important to keep evaluations as simple as possible and to remain focused on the intention of the evaluation and what the data gathered will be used for.
- **Data Analysis Procedure** may be quantitative and/or qualitative. Quantitative analysis may include statistics (using the SPSS software) to be computed and a description of the statistical methods used for testing the null hypotheses. This is done in quantitative research designs. In qualitative research, methods of analysis from different traditions like that of Colaizzi, Van Kamm, Giorgi, Yin, Strauss and Glasser can be used according to the qualitative design each method fits. In qualitative analysis may supplement any quantitative analysis used. Common statistical formulas shall not be listed.

## **CHAPTER 3: Findings/Results**

This section of the research contains the data gathered which are necessary to answer the research questions. When presenting the findings, the past tense is usually used since the actual gathering of the data was already accomplished. The researcher may make use of tables or figures in presenting his/her data, whichever is more appropriate for the type of data. Such tables and/or figures need to be captioned

properly to be better understood. Usually, for tables, the captions are placed above it, while for figures, the captions are placed below. It is important to note, however, that this section only contains the findings or the results without any explanation whatsoever. Commentaries, interpretations, and analyses of the findings will be presented in the next chapter.

#### **CHAPTER 4: Discussion**

In this section, the researcher will allot a significant portion to explain what the findings or results mean in the context of the research. It is here where the researcher interprets the data and analyzes them so that the reader gets to understand how they relate to the research, and finally answers the research questions posited in the introduction. The researcher may cite other works to support his/her assertions and strengthen the credibility of his/her generalizations.

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## AB History Research

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A History thesis is one of the major requirements in the completion of the AB History Program. It is the culminating project, which highlight the essential skills that a graduate of the program must possess. Through the thesis, the student shows that s/he is capable of locating sources of historical data, subjecting the sources to internal and external criticism, and interpreting these data into a meaningful narrative, among other skills. After only having proven such capabilities will s/he be awarded the AB History degree.

This section contains various essential information students need to know in proceeding with their thesis requirement. Presented and explained are the parts of the thesis, the format, the thesis process, the thesis flow, supplemental requirements and reminders. By following the systematic process, the student will be guided on how to go about the necessary procedures in accomplishing the research.

### Contents

1. Concept of Historical Research
2. The Writing Process
3. The Manuscript and Chicago Format
4. Overview of the Thesis Flow
5. Thesis Policies

## The Concept of Historical Research

### Historical Research

Historical research is the systematic and objective location, evaluation and synthesis of evidence in order to establish facts and draw conclusions about past events (Riello, 2009). It involves a critical inquiry of a previous age with the aim of reconstructing a faithful representation of the past. It enables researchers to explore and explain the meanings, phases and characteristics of a phenomenon or process at a particular point of time in the past (Howell and Prevenier, 2001). The main variable emphasized in this research is time and the essential aim is to identify appearances of the chosen phenomenon in a temporally defined situation and environment (Shafer, 1974; Grassby, 2005).

Historical research is a type of analytical research whose common methodological characteristics include (Grassby, 2005; Dannehl, 2009; Riello, 2009):

1. review of primary and secondary data,
2. identifying a research topic that examines past events,
3. systematic collection and objective evaluation of data related to past occurrences with the help of techniques of criticism for historical searches and evaluation of the information, and
4. synthesis and explanation of findings using theories concerning causes, effects or trends of these events that may help explain present events and direct future actions.

Historical studies attempt to provide information and understanding of past events. The historical method consists of techniques and guidelines where historians use historical sources and other evidences to research and then write history.

### Purpose of Historical Research

Conducting historical research serves a number of purposes for the academe and the community it serves:

1. Historical research looks into what man has done so far. By identifying humanity's accomplishments, the researcher presents of what humanity is capable, thereby revealing man's identity.

2. Everything that man is experiencing at the present is a result of a certain phenomenon in the past. Historical research brings to light the causes of such experiences and explains whatever man is experiencing today.
3. Man cannot completely prepare for what the future may bring. However, he can avoid mistakes made in the past and emulate successful strategies or techniques to accomplish similar endeavors. Historical research provides insights such as these to facilitate the continuous improvement and development of society.

### **Characteristics of Historical Research**

Historical Research is not a mere accumulation of facts and data or even a portrayal of past events.

1. HR is analytical in that it uses logical induction.
2. It has a variety of foci such as issues, events, movements and concepts.
3. HR records and evaluates the accomplishments of individuals, agencies or institutions.
4. HR deals with the discovery of data that already exists and does not involve creation of data using structured tools.
5. It is a flowing, vibrant report of past events, which involve the analysis and explanation of these occurrences with the objective of recapturing the nuances, personalities, and ideas that influenced these events.
6. HR involves the process of collecting and reading the research material collected and writing the manuscript from the data collected. The researcher often goes back-and-forth among collecting, reading, and writing. i.e., The process of data collection and analysis are done simultaneously and are not two distinct phases of research.

### **Approaches to the Study of History**

- a. **Qualitative Approach** is the search for a story inferred from a range of written or printed evidence. The resultant history is organized chronologically and presented as a factual tale: a tale of a person who created reading textbooks, such as the Biography of William Holmes McGuffey or the Lindley Murray Family in the Western context. The sources of qualitative history range from manuscripts such as account books, school records, marginalia, letters, diaries and memoirs to imprints such as textbooks, children's books, journals, and other books of the period under consideration.
- b. **Quantitative Approach**, QA researchers intentionally look for evidence that lends itself to being counted and presumed to have superior validity and generalizability. Researchers seek to estimate the popularity of a particular textbook by tabulating the numbers printed, based on copyright records. Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques.
- c. **Content Analysis**, CA focuses on the text itself for the examination. This approach uses published works as its data (in the case of history of textbooks, these might be readers, or examples of the changing contents of school textbooks in successive editions) and subjects them to careful analysis that usually include both quantitative and qualitative aspects. Content analysis is particularly useful in investigating constructs such as race, caste, etc.
- d. **Oral History**, Qualitative, quantitative, and content approaches use written or printed text as their database. In contrast, the fourth approach, Oral History, turns to living memory. For instance, oral historians interested in women's education could ask their respondents about their early experiences and efforts in women's education.

These four approaches are not mutually exclusive. Historians avail themselves of as many of these as their question, topic, and period permit. This integration is possible because the nature of historical research cuts across a variety of approaches, all of which commence with the recognition of a topic and the framing of a question. In other words, although a historical study is qualitative in nature, it can be

approached in a quantitative manner or even a combination of other approaches. The purpose can be mainly descriptive, aiming to understand some specific development in a particular period of time in a particular culture, or it could be explanatory, trying to test and accept / reject widely held assumptions or theories.

A historical investigation is conducted with objectivity and the desire to minimize bias, distortion and prejudice. Thus, it is similar to descriptive method of research in this aspect. Besides, it aims at describing all aspects of the particular situation under study (or all that is accessible) in its search for the truth. Thus, it is holistic, comprehensive in nature and is similar to the interpretive approach. Though it is not empirical in nature (does not collect data through direct observation or experimentation), it does make use of reports (all the available written and/or oral material), definitely qualifying it to be a scientific activity. This is because it requires scholarship to conduct a systematic and objective study and evaluation and synthesis of evidence to arrive at conclusions. In other words, historical research is scientific in nature.

Moreover, any competent researcher in other types of empirical studies reviews the related literature to find prior researches and theoretical work done on a particular topic. This requires studying journals, books, encyclopedias, and unpublished theses followed by the interpretation of their significance.

These steps are common to empirical research and historical research. Thus, to some extent, every researcher makes use of the historical method in his/her research.

### **The Writing Process**

The essential steps in conducting a Historical Research are:

1. Identify a topic/subject and define the problems/questions for investigation.
2. Search for sources of data.
3. Evaluate the historical sources.
4. Organize, analyze, and interpret the data / information.
5. Write the research report

### **1. Identify a Topic and Define the Problem**

#### ***Research Themes***

The first part of a research is identifying the problem. In historical research, the problems are anchored on various themes that reflect the interest of the researcher. Archival materials, documentary sources, published studies, books are some examples of reading materials that can be a source of inspiration for a research theme/topic. The researcher may choose from any historical theme for a topic/problem:

- Political history
- Economic history
- Social history
- Cultural history
- Military history
- Local history
- Institutional history
- History of sectors in society or social structures
- Religious history

In order to identify a significant research problem, Gottschalk recommends four questions to answer, to identify the scope of the study, including but not limited to: the geographical area, the number of persons involved, the time span, the number and kinds of human activities involved, and the delimitation of the study.

- Where do the events take place?
- Who are the persons involved?
- When do the events occur?
- What kinds of human activities are involved?

## **2. Search for Sources of Data**

Historical research may or may not include direct observation of events or persons. These observations are obtained from several sources of historical data broadly classified into two types:

### **1. Primary Sources**

PS refer to the “testimony” of any eyewitness present at the events of which he tells. A primary source must have been produced by a contemporary of the events it narrates.” Primary sources provide a description of a historical event produced shortly after the event happened. Examples of primary sources include newspaper reports, letters, public documents, court decisions, personal diaries, autobiographies, artifacts and eyewitness’s verbal accounts.

Two Broad Categories of Primary Sources Data:

- a. The remains or relics of a given historical period including photographs, coins, skeletons, fossils, tools, weapons, utensils, furniture, buildings and pieces of art and culture (object d’ art). These sources/relics prove very useful in providing reliable and sound evidence about the past, delivering non-verbal information.
- b. Those objects that have a direct physical relationship with the events being reconstructed including documents such as laws, files, letters, manuscripts, government resolutions, charters, memoranda, wills, newspaper reports, magazines, journals, films, government or other official publications, maps, charts, logbooks, catalogues, research reports, record of minutes of meetings, recording, inscriptions, transcriptions and so on.

### **2. Secondary Sources**

SS refer to testimonies describing the event though not actually present and who obtained his/her descriptions or narrations from another person or source. Secondary sources do not have a direct physical relationship with the event being studied. They include data which are not original. Examples of secondary sources include textbooks, biographies, encyclopedias, reference books, replicas of art objects and paintings and so on. The historical researcher needs to evaluate the secondary sources for their validity and authenticity. Such secondary materials could include other historian’s conclusions and interpretations, historical information, references to other secondary and primary sources.

## **3. Evaluation of the Historical Sources**

The data of historical sources is subject to two types of evaluation. These are: (A) external evaluation or criticism and (B) internal evaluation or criticism.

- **External Criticism of Data**

External criticism regards the issue of authenticity of the data- is the source of data genuine? Theoretically, the main purpose of external criticism is the establishment of historical truth. Determine whether the document or the artifact is genuinely valid primary data. Look at problems pertaining to plagiarism, alterations of document, insertions, deletions or unintentional omissions. Establish authenticity of documents through carbon dating, handwriting analysis, identification of ink and paper, vocabulary usage, signatures, script, spelling, names of places and writing style and other considerations. In other words, answer questions about the nature of the historical source such as “who wrote it?”, “Where?”, “When?”, “Under which circumstances?”, “Is it original?”, “Is it genuine?”, and so on.

- **Internal Criticism of Data**

Having established the authenticity of the source of historical data, you may focus now on the accuracy and worth of the data contained in the document. Be concerned with the meaning of the written material. Answer questions such as what does it mean; what was the author attempting to say? What do the words of the decision convey regarding the intent and the will of the court? Is there any (unintended) misinformation given in the document? Is there any evidence of deception? and so on. Be very cautious so that you do not reject a statement only because the event described in the document appears to be improbable.

#### **4. Organization, Analysis, and Interpretation of Data**

Before beginning historical research, have a specific and systematic plan for the acquisition, organization, storage and retrieval of the data. A general way of organizing data gathered is by going back to the research questions specified. Place the information found under the specific question by taking note of the answer and their bibliographical information. After finding sufficient data to answer the question(s), reorganize the data to give a logical flow to the narrative. Retain the context of the information and always use with careful citations direct and block quotations.

- **Note cards and Bibliography Cards**

Prepare bibliography cards of size 3×5 inches for taking down bibliographical notes. A bibliography card is valuable not only for gathering and recording of information but also for locating it again at a future date. Such a card contains the essential information concerning a bibliographical source. Keep plenty of such cards to record very valuable references encountered unexpectedly. Take note of the document's relation to the research.

On the other hand, a note card can be of size 4×6 or 5×7 inches for substantive notes. Place only one item of information on each card. Give each card a code to indicate the place / question / theme / period / person to which the note relates. Arrange the cards as per the question, theme, period, place or person under study to make analysis easier. In other words, keep note cards in multiple copies (e.g., in triplicate or quadruplicate) depending on the ultimate analysis of the data.

- **Summary of Quantitative Data**

Historical studies are chiefly qualitative in nature since the data obtained includes verbal and/or symbolic material from an institution, society or culture's past. However, when the study involves quantitative data pertaining to the past events, the researcher needs to evaluate the relevance of the data to the research because recording and analysis of quantitative data is time-consuming and sometimes expensive. Examples of quantitative data in historical research include financial and economic information such as budgets, income and expenditure statements, social indicators such as population censuses and survey results, poverty rates, unemployment rates, and so on.

- **Inferences and Interpretations of Historical Data**

Interpretation of the facts in the light of the topic of research is necessary. This step requires caution, imagination, ingenuity, insight and scholarliness. Make scientific sense out of the multitude of data gathered for the analysis, synthesis and interpretation. Interpretation generally involves a synthesis of data in relation to a hypothesis or question or theory rather than mere accumulation or summarization. Fit the data into a logically parsimonious structure. Be clear about the interpretative framework to be sensitive towards bias in other historical researchers' interpretations who have conducted research on the same or similar topics.

Identify the motives of the people involved in the event under study while interpreting the data. These motives may be multiple in nature and interact with each other, making interpretation of the data a difficult task. Various reasons may influence each other making the task of interpretation of data difficult.

Make use of concepts from other social and behavioral science disciplines in analyzing interpreting data. Some examples of such concepts may be bureaucracy, role, institution (from sociology), leadership, institutional effectiveness (From management), culture (from anthropology), motive, personality attitude etc. (from psychology) and so on.

Make use of the concepts of historical time and historical space while interpreting the data like the use of a chronology of events where you identify the chain of events (chronology) of substantive history and try to understand the meaning of these events, the relationship among the events and the relationship of the events to the research topic. Using this concept may gain increased insight into multiple events and their causes.

Historical space on the other hand deals with ‘where’ the event originated, spread or culminated. This could provide a different insight into the meaning of the data.

The historical researcher can also use analogy as a source of hypothesis or as a frame of reference for interpretation. Draw parallels between one historical event and other events. Be aware of similarities, differences as well as exceptions while comparing two historical events, otherwise, such an extrapolation will be unreliable. Avoid the risk of interpreting an event by comparing it with another event in another culture at another time.

## **5. Writing the Research**

Reports of historical research have no standard formats. The presentation of data analysis, interpretations and findings depend on the nature of the problem. In writing, report historical investigations with a combination of two or more of the approaches that follow:

1. Report the historical facts as answers to different research questions. Report answers to each question in a separate chapter.
2. Present the facts in a chronological order with each chapter pertaining to a specific historical period chronologically.
3. Write the research in a thematic manner where each chapter deals with a specific theme/topic.
4. Make each chapter deal with a separate location.
5. Make each chapter pertain to a specific historical person.

## **Avoid the following Problems and Weaknesses in Historical Research**

1. The research problem is too broad.
2. Research problem lack sources of data.
3. Dodge excessive use of easy-to-find secondary sources of data.
4. Pass up both-extreme generosity or admiration as well as extreme criticism.
5. Avoid statements of evidence influenced by the opinion of other participants/witnesses.
6. References are non-existent, inaccessible and the language used is unknown to the researcher.
7. Eschew reliance on biased beliefs such as “old is gold” “new is always better” or “change implies progress”.
8. Avoid unwarranted causal inferences arising on account of:
  - a. Oversimplification
  - b. Faulty interpretation of meanings of words
  - c. Inability to distinguish between facts, opinions and situations
  - d. Inability to identify and discard irrelevant or unimportant facts
  - e. Faulty generalization based on inadequate evidence

- f. Faulty logic and reasoning in the analysis of data
  - g. Wrong analogy
  - h. Faulty comparison of events in similar cultures.
9. Avoid flowery or flippant language, emotional words, dull and colorless language or persuasive style.
10. Avoid projecting current problems onto historical events as this is likely to create distortions.

### **Criteria for Evaluating Historical Research**

- a. Problem
  - Is the problem clearly defined?
  - Is the problem capable of solution?
  - Is it within the competence of the investigator?
  - It is difficult enough to conduct historical research adequately, without adding to the confusion by starting out with a nebulous problem.
- b. Data
  - Are data of a primary nature available in sufficient completeness to provide a solution, or has there been an overdependence on secondary or unverifiable sources?
- c. Analysis
  - Has the relevance of the data been adequately explored?
  - Has the dependability of the data been adequately established?
- d. Interpretation
  - Are his hypotheses plausible?
  - Has the hypothesis been adequately tested?
  - Does he display adequate historical perspective?
  - Does he take a sufficiently broad view of the total situation?
  - Does he see the relationship between his data and other ‘historical facts’?
  - Does he maintain his objective, or does he allow personal bias to distort the evidence?
  - Does the author display adequate mastery of his data and insight into their relative significance?
- e. Presentation
  - Are his hypotheses plausible?
  - Has the hypothesis been adequately tested?
  - Does he display adequate historical perspective?
  - Does he take a sufficiently broad view of the total situation?
  - Does he see the relationship between his data and other ‘historical facts’?
  - Does he maintain his objective, or does he allow personal bias to distort the evidence?
  - Does the author display adequate mastery of his data and insight into their relative significance?

### **The Manuscript and Chicago Format**

- Font style is Times New Roman
- Alignment is Justified
- Font size is 12
- Titles/Headings are boldfaced and in capital letters
- Margins of the document are:
  - Top: 1” Bottom: 1”
  - Left: 1.5” Right: 1”
- Line spacing is Double-spaced
- No page borders

### **Three Parts of Historical Research**

#### *The Introduction*

Where the main problem of the research is expounded. The gap in the body of historical knowledge is established here. The identified gap is the main problem of the research. The student elaborates this gap and confirms the feasibility of chosen topic. The introduction contains the following components:

- Background of the study
- Statement of the Problem
- Significance of the study
- Scope and Limitation
- Review of Related Literature
- Research Methodology
- Theoretical Framework
- Research Outline

a. Background of the Study

In the background of the study, the researchers present the historical background of the topic, events and circumstances in which the topic is related to. The researchers may choose to present the immediate events leading to their chosen topic, or may start with a general event in which their topic would fall under, or a commonly accepted interpretation of a historical event to which their topic would delve in. This is done in order to make the readers aware of the gap in the body of historical knowledge.

b. Statement of the Problem

In the statement of the problem, the researchers clearly and specifically state the main problem of the research, and its breakdown into specific sub-questions. The specific sub-questions or research questions are designed such that the aggregate answers will provide the answer to the main problem devised by the researchers.

c. Significance of the Study

In the significance of the study, the researchers present why the research should be undertaken, why pursue the study and what will the study ensue.

d. Scope of the Study

In the scope of the study, the researchers state specifically what areas their research will deal with, which aspect in the historical event will they talk about and what perspective will they use to present it. They may also state aspects that are not included in the research but may be erroneously assumed part of the work.

e. Review of Related Literature

In the review of related literature, the researchers survey existing literature relevant and connected to the study. The works may include the sources (both primary and secondary) that will be used for the research, studies made that are similar (but not exactly the same) to the research-at-hand, and other related works. The review should answer what the work is about, how it is related to the study, and what it does not say about the researchers' topic that their study will provide.

f. Research Methodology

In the research methodology, the researchers present the procedures they will use in conducting the study. Specifically, the researchers need to emphasize that the work is historical therefore it will be descriptive-narrative and analytical in nature. Further, the researchers also note what framework they will be using in analyzing and interpreting the data. They can also mention the use of oral history as an additional methodology to supplement their data.

g. Theoretical Framework

In the theoretical framework, the researchers explain the elements of the framework they will use in the analysis and interpretation of their data. They will explain the flow of the analysis process in light of the theory that they will use and the application of the theory to their topic.

h. Research Outline

In the research outline, the researchers will explain the research division into chapters, usually with each sub-question answered in one chapter. They will also describe and present how the study will look like once it is accomplished. They will present a summary of the expected contents of each chapter that makes up the manuscript.

### **The Body of the Research**

The research body contains the bulk of the manuscript. It is the most voluminous part of the research. Here, much of the narration happens since it is where the researchers present their data in a descriptive-narrative manner. The answers to the sub-questions are given and explored in the body, which is divided, into chapters and where each chapter corresponds to a sub-question identified in the introduction. Ideally, the number of chapters that the manuscript will have depends on the number of sub-questions derived from the main problem. The researchers must bear in mind that since their work is a historical study, it must be presented descriptive-narratively, and that their interpretation based on their chosen framework must be evident throughout the body.

Since the Main problem is broken down into the specific sub-questions, thus, to arrive at the answer to the main problem, the discussions involved in answering the sub-questions are then synthesized, which composes the last part and the final chapter of the study. It is here where the gap identified in the beginning of the study is filled.

It is important to note that the analysis of the facts may happen in between the narration of the facts, or at the end, after all facts have been given. There is no definite structure as to when the analysis will be given, so long as the narrative-analytic aspect of the work is fulfilled.

### **The Synthesis of the Study**

The synthesis contains the findings summarized and interpreted to answer the main problem. The synthesis reveals the summing up of the main points in the research body, which will then be the answer to the main problem. Here the researchers give their response to the query they posted in the statement of the problem and present their answer in the gap they discovered. Here they also present their final interpretation based on the framework they chose.

### **Chicago Style Formatting Guidelines**

This guideline is adapted from Okanagan College History Department, San José State University Writing Center and University of California Berkeley Library all of which uses The Chicago Manual of Style, 16th edition and Kate L. Turabian's A Manual for Writers of Research Papers, Theses, and Dissertations, 8th edition. The citation format is found in page APPENDIX 18.

The Chicago style, also called "Turabian" style after the author of its most authoritative resource, A Manual for Writers, is a formatting and citation style guideline commonly used in the fields of science and humanities.

### **Direct Quotes**

Direct quotes should be enclosed with double quotation marks if four lines or fewer in length. Integrate quoted material into a sentence with a footnote, endnote, or parenthetical citation at the end of the quoted

passage. If you choose to include a parenthetical citation, the author's last name, the year of publication, and the page number of the quote should be listed.

### **Block Quotes**

A quotation of at least five lines or at least two paragraphs should be placed in block format without quotation marks. Indent the entire quotation 0.5"—the same as a standard paragraph indent. According to Kate L. Turabian's *A Manual for Writers*, block quotes should be single spaced (Turabian 2013). Insert a blank line before and after the block quotation to separate it from the rest of the text.

Follow the block quote with a footnote or endnote as a superscript number at the end of the quotation or use a parenthetical citation at the end of the quotation. If you choose to include a parenthetical citation, you should provide the author's last name and page number (as shown in the below example). Unlike the parenthetical citation for an inline quotation, the parenthetical citation for a block quotation does not require the publication year.

### **Citation Styles**

The *Chicago Manual of Style* presents two-citation styles: notes-bibliography and parenthetical citations-reference list also known as "author date" style. Notes-bibliography style is widely used in the humanities and social sciences fields, while the parenthetical citations-reference list style is used in the natural and physical sciences.

### **Notes-Bibliography Style Basics**

#### ***Footnotes and Endnotes***

For footnotes and endnotes, place a superscript number after the source to indicate that a source has been used, both for quotations and for paraphrased material. This superscript number will refer a reader to the bottom of the page (for the footnote) or to the end of the document (for the endnote).

Your citation material for both footnotes and endnotes should be indented as you would indent a paragraph. Begin the note with its reference number (not using the superscript as you would in the text of the document) followed by the author's name in standard order, the title of the source, the publication information, and the page number. If you cite the same source again later in the document, you should shorten all future notes. The Digital Object Identifier (DOI) number should be cited for a journal article, if available. If no DOI is available, include a URL instead.

### **Bibliography**

In addition to the footnotes or endnotes, you will also list sources at the end of the document in a bibliography. The bibliography page lists each source with author name, title of publication, publisher information, and date. Note that pieces of information are separated by periods instead of commas and that the name of an entry's first author is listed in inverted order (i.e., last name, first name); all other names are listed in standard order (i.e., first name last name). In bibliographies, list all authors' names.

### Scientific Research

Science is the process of gathering, comparing, and evaluating proposed models against observables. A model can be a simulation, mathematical or chemical formula, or set of proposed steps.

Research, according to Merriam-Webster, is a careful study that is done to find and report new knowledge about something. Generally, research is understood to follow a certain structural process. The goal of the research process is to produce new knowledge, which takes three main forms:

1. Exploratory research, which structures and identifies new problems
2. Constructive research, which develops solutions to a problem
3. Empirical research, which tests the feasibility of a solution using empirical evidence

Research is scientific or critical investigation aimed at discovering and interpreting facts. This research uses the scientific method, a way of evaluating natural patterns and phenomena and testing potential sources for causality and influence on measurable biological traits. This usually comes in the form of defined methodological steps that include:

- a. observation, the identification of a question or problem,
- b. proposing a hypothesis and predictions,
- c. experimenting or testing the proposed hypothesis,
- d. evaluating the resulting data and comparing these data to previously published work on the same or similar hypotheses, and
- e. then disseminating the new synthesized findings through presentations and/or publications. Because any single hypothesis may be tested in numerous ways and using a variety of experimental systems or species, any individual study does not irrefutably “prove” or “disprove” a hypothesis; thus, the results of an experiment are always discussed as “supporting” or “not supporting” a hypothesis.

A primary task of a researcher is the communication of technical results to the broader scientific community. Whether in written or oral form, scientific communication is a critical step in the scientific method and is the key driver of movement within a scientific field. Therefore, the construction of a written scientific manuscript must not be taken lightly since there are common aspects of a well-constructed scientific manuscript that needed special attention to consider. It should be noted that manuscripts that are successfully submitted to a journal for publication have three main components (Percival et al., 2015):

1. the overall idea;
2. the execution of the work; and
3. the presentation of the work.

### Characteristics of a Good Scientific Research

The following are characteristics of a good scientific research.

1. **Reliability** – is the repeatability of any research, research tool or procedure. If any research yields similar result each time it is undertaken with similar procedures, it is reliable research
2. **Validity** – the strength in which we can make research conclusions. It determines the applicability or suitability of the research
3. **Accuracy** – the degree to which each research process, instrument, and tool is related to each other. It measures whether research tools have been selected in best possible manner and research procedures suits the research problem or not.

4. **Credibility** – comes with the best source of information and best procedures in research. Based on protocols or reliable information/data.
5. **Empirical** – based on observations and experiments on theories
6. **Systematic** – follows an orderly and sequential procedure
7. **Controlled** – all variables except those that are tested/experimented upon are kept constant
8. **Employs hypothesis** – guides the investigation process
9. **Analytical** – there is critical analysis of all data so that there is no error in their interpretation
10. **Objective and logical** – all findings are logically based on empirical data
11. **Employs quantitative or statistical methods** – data are transformed into numerical measures and are treated statistically. It also pertains to the measurability of the research wherein each data or information of the objective or aims of the study can be measured.

### **Research Themes for Biological Research**

Listed below are some suggested themes for a scientific research.

1. Pharmacology Researches
2. Environmental Analysis Researches
3. Ethnobotanical Researches
4. Nutrition and food production
5. Control of environmental pollution
6. Non-conventional sources of energy
7. Process technology
8. Microbiology
9. Natural pesticides/ insecticides
10. Agricultural productivity
11. Health and medicine
12. Waste management
13. Toxicology
14. Biophysics
15. Natural products
16. Environmental assessment
17. Biodiversity and conservation
18. Cellular biology
19. Molecular biology and engineering
20. Biotechnology
21. Balakart tree related researches (MCC-IASTE research theme initiative)

### **Guidelines in Writing a Scientific Research Paper**

#### ***I. Title***

The title should be short and simple, but direct to the point and reflects the scientific content, and not the nature of the assignment. Use descriptive words that would associate strongly with the content of the paper. The reader should be able to tell, just by reading the title, what has been done without having to read the paper. It should also be self-explanatory.

**An Assessment of Starch Metabolism in Banana Cells**

is more appropriate than “Lab Report 1” or “Bananas ‘n Scopes.”

**Ducks Over-Winter in Colorado Barley Fields in Response to  
Increased Daily Mean Temperature**

The title is not a section, but it is necessary and important. The title should be short and unambiguous yet be an adequate description of the work. A general rule-of-thumb is that the title should contain the key words describing the work presented. Remember that the title becomes the basis for most on-line computer searches - if the title is insufficient, few people will find or read the paper (Blum, 2006).

Another example, in a paper reporting on an experiment involving dosing mice with the sex hormone estrogen and watching for a certain kind of courtship behavior

Poor title:

**Mouse Behavior**

Why? It is very general and could be referring to any of a number of mouse behaviors.

Better title:

**Assessment of Varying Levels of Estrogen on the Nose-Twitch Courtship Behavior in ICR Mice  
(*Mus musculus L.*)**

Why? Because the key words identify a specific behavior, a modifying agent, and the experimental organism. If possible, give the key result of the study in the title, as seen in the first example.

Keep in mind as well that the scientific name is inside the parentheses and is not bold but is italicized. Only the genus begins with an uppercase letter.

Similarly, the above title could be restated as:

**Estrogen Stimulates Intensity of Nose-Twitch Courtship Behavior in ICR Mice (*Mus musculus L.*)**

Poor title:

**A Biological Research on the Light and Temperature applied on Bacteria**

The reader has no idea what methodology has been done on a vague title. The following is a self-explanatory title:

Better title:

**The Effects of Light and Temperature on the Growth of the Bacterium *Escherichia coli***

Here the title specifically states three things: the environmental factors that were manipulated (light and temperature); the response of the organism that was measured (growth); and the specific organism that was used (*Escherichia coli*).

Notice that scientific names of organisms are italicized in printed material. Only the genus begins with an uppercase letter.

If several variables were used, stating all the specific factors that were manipulated are not needed. For example, if several chemicals were used the following title would be acceptable:

## Effects of Various Chemicals on the Growth of *Escherichia coli*

Always note that the title of the research should be always in an inverted triangle arrangement. Refer to the examples below.

### Analysis of the Spatial Distribution of Tree Resources Outside the Forests in Ashanti Region, Ghana

The economic value of a forested catchment with timber,  
water and carbon sequestration benefits

#### **II. ABSTRACT**

The abstract is a short summary of the study. It is a brief (usually no more than 250 words), one-two paragraph synopsis of the entire research project. It should be a stand-alone entity from which a reader can elucidate all of the main points of the research, thus allowing them to determine whether reading the paper will be useful for them. Think of the abstract as providing one or two sentences that summarize each of the subsequent main sections of the paper. Thus, it is often easiest to write the abstract after the rest of the paper is completed. Specifically, the abstract should clearly and concisely answer the following questions:

1. What is the broad problem, or knowledge gap that the paper trying to fill?
2. What is the specific purpose of the research in light of that knowledge gap?
3. What specific hypothesis or hypotheses will be tested?
4. Briefly, what was the general methodological strategy for testing that hypothesis?
5. What were the main results?
6. What are the broader implications of these results?

The Abstract is ONLY text. Use the active voice, when possible, but much of it may require passive constructions. Write the Abstract using concise, but complete, sentences, and get to the point quickly. Use past tense. Maximum length should be 150-250 words, usually in a single paragraph.

The Abstract SHOULD NOT **Abstract**  
contains:

- a. lengthy background information,
- b. references to other literature,
- c. elliptical (i.e., ending with ...) or incomplete sentences,
- d. abbreviations or terms that may be confusing to readers,
- e. any sort of illustration, figure, or table, or references to them.

Forestry has been proposed as a means to reduce net greenhouse gas emissions, by either reducing sources or enhancing sinks. This study assesses the potential of an incentive-based program to stimulate small farmers and communities to adopt biomass accumulating measures such as agroforestry or improved forest management. Current vegetation type, land use and stocks of carbon were assessed for an area of around 600 000 ha in southern Mexico, and the carbon (C) sequestration potential of a number of alternative techniques, based on farmers' preferences, was estimated. Cost and benefit flows in US \$ per Megagram (106 g) of carbon (MgC) of each current and alternative system were developed. A model was designed to calculate the expected response to financial incentives of between US \$0 and \$40 per MgC sequestered. The most cost-effective method for sequestering carbon appears to be the improved management of natural forest on communal lands. We estimated that 38-106 MgC could be sequestered for under US \$15 MgC-1, of which 32-106 MgC through forest management. The choice of a baseline rate of biomass loss under a 'business-as-usual' scenario remains a critical issue for estimates of the cost-effectiveness of carbon sequestration by forestry.

*Keywords:* Carbon sequestration supply; Forest management; Land-use change; Cost-effectiveness analysis

Keywords are added at the bottom of the Abstract with no more than 6 words that would give an idea of what is included in the study. Refer to the example.

### **III. INTRODUCTION**

The introduction provides broad context for the research (what is the “big picture?”), identifies the specific hypotheses, and briefly outlines the methodological rationale for testing those hypotheses. A well-written introduction typically leads the reader from broad to specific information, presenting a convincing argument that the research is important and that the approach employed is sound. The Introduction (or Chapter 1 in the manuscript) concisely describes the purpose of the investigation and should tell the reader why this work was done. It consists of the following parts:

- A. Background of the study
- B. Statements of the problem
- C. Hypothesis
- D. Significance of the Study
- E. Scope and Delimitations of the Study
- F. Definition of Terms

### **Guidelines in Refining the Topic for Scientific Research**

- Describe the general question, problem or gap in our knowledge, and explain why it is important to consider.
- Describe the contributions of other studies to addressing this question/problem. What is the current state of knowledge on the subject, and what new knowledge is required?
- Describe the specific goal, which should be to fill one or more of the knowledge gaps that have just been identified.
- If the purpose of the investigation is to learn about a specific biological entity (e.g., a particular organ, organism, ecosystem, etc.) because it is important in and of itself, then the presentation of broad context, above, will have already provided necessary background, and then proceed to describing the hypotheses and strategy.
- On the other hand, there is an interest in investigating a general biological process (e.g., oogenesis, transcription in eukaryotes, optimal foraging by animals), the model system chosen must be explained and justified. The model might be a traditional one such as *Drosophila* or yeast, or a less traditional model such as birds or deciduous trees. If others have used this system in a similar way, citation of these other studies supporting the claim must be done.
- Briefly review past research on the problem with enough background information to orient the reader (this is usually accomplished by a literature search of published materials).
- The background information included must be appropriately referenced.
- Discuss first the general problem or theory pertaining to the problem and then discuss the topic more specifically to the group, species, or specific area being researched.
- Make sure that statements/ of the problem are measurable in which the answer for those questions that arise from the study are measured by the experiments that will be conducted in the study. State the specific question(s) attempting to answer. Refer to the examples.

Example 1:

#### **Effects of varying temperatures and concentrations on the Index of Refraction of Sugar Solution**

**Main objective:** find the effects of temperature and concentration on the index of refraction of sugar solution.

**Specific objectives:** Specifically, this study seeks to find the effects of  
A. varying temperatures on the index of refraction of sugar solution, and  
B. varying concentrations on the index of refraction of sugar solution

Example 2:

**Inventory, Classification and Biodiversity of Bryophytes in the Northwestern Slope of Mt. Arayat**

**Main objective:** Aims to establish the occurrence and diversity of the different species of bryophytes in the northwestern slope of Mt. Arayat.

**Specific objectives:** Specifically, this study seeks to answer the following questions:

- A. What are the different species of bryophytes in the northwestern slope of Mt. Arayat and how are they classified in terms of the following morphological features:
  - a. Leaf shape
  - b. Leaf apex
  - c. Capsules?
- B. How many species of bryophytes described in terms of
  - a. Habitat
  - b. Distribution?
- C. Which of the following will give the most occurrences in terms of the following diversity indices
  - a. Frequency
  - b. Dominance
  - c. Density
  - d. Species diversity?
- D. Are there any significant correlations between the species of bryophytes in the northwestern slope of Mt. Arayat and the area they inhabit in terms of
  - a. Altitude
  - b. Humidity
  - c. Air temperature
  - d. Soil pH
  - e. Soil moisture
  - f. Soil type and organic matter?

- State the general method to be used, and how the investigation will help clarify or expand the knowledge in the general area. One function of the Introduction is to briefly tell the reader what to expect in the paper.
- The purpose and importance of the study should be clear and those who will benefit from the study.

#### ***IV. REVIEW OF RELATED LITERATURE***

This Chapter highlights the literatures with relevance in the research wherein literatures can come from many resources such as books, published journals, previous studies (unpublished theses), periodicals, review magazines and even the web.

This section supports the study as a whole. What has been conducted, where it has been studied, related species/other species of the genus that have been researched supporting the study, what has been done and what is still lacking. A literature synthesis is included to sum up the relevant literatures related to the focus of the study and to show what's lacking from these researches why the research will be undertaken.

It comprises of several parts: Related literature (from books or periodicals) and Related studies (from published journals) which is further divided into foreign studies (internationally published journals or studies that have been conducted in other countries) and Local studies (published and sometimes unpublished researches within the country). In this section, citations of authors are directed and their researches. Note that these literatures must be paraphrase or rephrase to avoid PLAGIARISM and are in chronological arrangement from past to latest studies.

Citation and referencing format: *APA style (See APPENDIX 19)*

## Examples:

*For 1 author:*

On the study of Martinko (2017) regarding the effect of the different concentrations of Teak ethanolic leaf extract on the histopathology of male ICR mice as a potential hepatoprotective agent revealed that ....

*For several authors*

Sahim, et al., (2010) conducted an inventory of freshwater gastropods on the Northwestern slope of Mt. Arayat ....

Puyat, and colleagues (2012) investigated the heavy metal contamination and bioaccumulation of lead, arsenic and copper in Manila Bay found out that ....

## V. METHODOLOGY

This section is variously called Methods or Methods and Materials. It includes the research design, materials and the methods.

The research design introduces the general idea of the type of research to be utilized – either descriptive or experimental. It also presents the experimental design used in the study. For both descriptive and experimental studies, this section presents the treatments or groups to be studied in the research in table form with the description (see example below). A student should be familiar with the basics of research as well as statistical methods which were undertaken in the earlier year level.

Treatment groups	Treatments
T0 (Negative Control)	Male albino mice treated with distilled water
T+ (Positive Control)	Male albino mice treated with tetracycline alone
T1	Male albino mice treated with leaf extract (0.3 ml/20g bw) and tetracycline (0.5 ml/20 g bw)
T2	Male albino mice treated with leaf extract (0.5 ml/20g bw) and tetracycline (0.5 ml/20 g bw)

The research material section presents the materials to be utilized for the conduct of the study. These range from questionnaires to experimental animals, plant material, etc.

The research procedures section presents the chronological order of the methods or procedures to be undertaken in the study in a concise and direct to the point manner. Keep the explanations brief and concise. This section should be a straightforward description of the methods. It should not be written as if it were directions in a laboratory manual; therefore, do **not** make a list of materials, do **not** give instructions on how to do something, and do **not** recount the methods as a sequence of events. Rather, focus on the experimental design.

For example, do **not** write:

*“For this experiment you will need the following equipment: six petri plates, one liter of agar, and one inoculating loop. First pour agar into the six petri plates, then inoculate the plates with a fungus using the inoculating loop. Then you put the plates into the incubator.”*

An acceptable manner to convey the same idea as above is:

*“Six petri plates were prepared with agar, inoculated with an inoculating loop, and placed in the incubator for 10 hours at 37°C.”*

This strictly uses and applies standard protocols that are being utilized and practice by scientific researches and may or may not modified according to the research. Protocols are strictly followed to ensure the reliability of the data to be gathered and are cited within this section. These methods are employed to obtain data that answer the different objectives of the study. Finally, remember to describe the statistical analysis methods that were utilized to analyze the results, most likely in the final section of the Methods section.

## **V. RESULTS AND DISCUSSION**

### **Results**

The goal of the results is to describe the analytical results, supported by relevant statistical information and figures and/or tables clearly and concisely. The data itself should be presented in tables and figures. Introduce each group of tables and figures in a separate paragraph where the overall trends and data points of particular interest are noted. It should indicate the placement of a particular table or figure in the text. For experimental studies, key statistics such as the number of samples (n), the index of dispersion (SD, SEM), and the index of central tendency (mean, median or mode) must be stated. Include any statistical analysis that was performed, and make sure to indicate specific statistical data, such as p-values. State the results in simple, declarative statements of what the analyses revealed.

Statistical information should only be reported once to avoid redundancy. **Never report the same information in both the paragraph and in a table, nor in both a table and a figure.** Readers will be confused if they see the same information multiple times.

Data are generally organized into tables and/or figures (graphs). **Tables must have a table header (above the table) and figures must be accompanied by a caption (below the figure).**

A Results section that includes only a table or a figure and no text is not acceptable. Text must be given first, before tables and figures on a page. Unreduced, not summarized, or “raw” data should not be included. It is not appropriate to include redundant data and the same data should not be included in both table and figure form; rather, the data should be shown in the format that is most clear for the particular type of data collected and analyzed.

The text of the Results section should describe the results presented in tables and figures and call attention to significant data discussed later in the report. Do not repeat what is already clear to the reader from reviewing the tables and figures, which, if well-constructed, will show both the results and experimental design. A portion of the results text might read as follows:

*“The number of bacterial colonies increased up to 40°C, but decreased at higher temperatures (Figure 1). The greatest amount of growth occurred between 35° and 40°C.”*

In this example, Figure 1 refers to the graph in which the data are presented. In the same sentence, the author says something about the data and refers the reader to the appropriate figure. The figure (graph) may contain numerous data points (e.g., number of bacterial colonies at 1° C intervals from 0° to 60° C), but the author did not bore the reader with a description of each.

Rather, generalizations are made concerning the relationships shown by the data, which the figure illustrates (“a picture is worth a thousand words”).

### ***Use of Tables and Figures***

Tables and figures summarize data in a form that allows the reader to easily see any correlations, relationships, or patterns that are important. Tables are made when it is important that specific values are shown (i.e., means, standard deviations, standard errors, etc.). Figures are made when it is more important to shown trends or relationships of data. Certain requirements, however, must be met:

1. Refer to the tables as Tables; refer to all other items (graphs, pictures, drawings, maps, etc.) as Figures.
2. When including a table and/or figure, the study must refer to it in the text. For example, consider the following sentence:

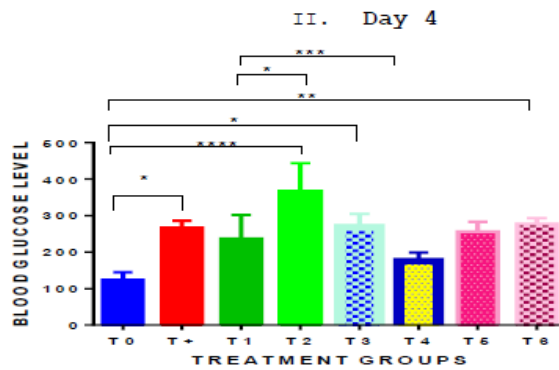
*The results of the temperature experiment are in congruence with the study of... (Figure 1)."*

This sentence tells the reader that all the pertinent data are to be found in Figure 1 and to refer to the figure while reading.

3. Independently number tables and figures. For example, in a paper containing two tables and two figures, number the tables Table 1 and Table 2, and the figures as Figure 1 and Figure 2.
4. Assign tables and figures their respective numbers on the basis of the order in which first mention them in the text. The first table mentioned is Table 1, the second is Table 2, etc. The same applies for the figures.
5. Tables and figures can either follow as closely as possible the actual page on which the table or figure is mentioned in the text. Ask the instructor for their preference.
6. All tables must have headers and figures must have self-explanatory captions. The rules for composing the headers and captions are the same as for composing the title of the paper. The reader should be able to look at a table or figure and by reading the caption know exactly what was done in that part of the experiment without having to read the text for an explanation. If appropriate, the sample size should also be included.
7. All tables and figures should include the units of measurement used (grams (g), meters (m), seconds (s), etc.). Otherwise, the data are meaningless. All columns in a table and both axes (X axis and Y axis) of a graph must be independently labeled including units. Units are usually included parenthetically in axes labels. For instance, an appropriate axis label may be: Time (min).

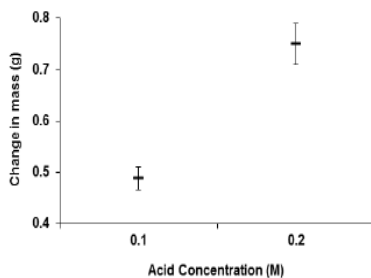
**Table 3.** Show the differences between observed blood glucose levels of different treatment in day 4

<b>Treatment Groups</b>	<b>Mean Average of Blood Glucose Level ( mg/dl)</b>
<b>T0</b>	123.8
<b>T+</b>	266.3
<b>T1</b>	236.7
<b>T2</b>	365.6
<b>T3</b>	269.1
<b>T4</b>	176.0
<b>T5</b>	256.2
<b>T6</b>	277.8

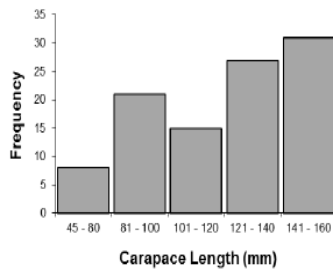


**Figure 4** Graphs showing the mean average of blood glucose level in different treatment. The bracket indicates the comparison between two different treatment groups. \* signifies that the comparison is significant. \*\* tells that the comparison is very significant. \*\*\* suggest that the comparison is strongly significant. \*\*\*\* suggests that the comparison is highly significant.

8. Headers for tables are always placed above the table, and captions for figures are always placed below the figure. Refer to the examples given.



**Figure 1.** The mean change in mass (g) of antacid tablets exposed for ten minutes to different concentrations of HCl. n=10 antacids in 0.1 M, 11 in 0.2 M. The central horizontal lines represent the means and error bars represent the 95% confidence interval.



**Figure 2.** The frequency of carapace lengths (by size category) of western pond turtles at Goose Lake, California in 1997.

**Table 1.** Grip strengths (Newtons, N) of dominant and non-dominant hands using a hand dynamometer. Data are for college-age students. n=9 in each group, s=standard deviation, SE=standard error, LCL and UCL are lower and upper confidence limits for the 95% confidence interval of the mean, respectively.

	mean	s	SE	95% CI	
				LCL	UCL
Dominant Hand	31.6	2.53	0.844	29.9	33.3
Non-dominant Hand	27.1	3.41	1.14	24.8	29.3

**Table 2.** The height (mean  $\pm$  1 SE) and sample size (n) of dwarf pea plants was significantly different ( $P = 0.012$ ) between those treated with brassinosteroid hormones and those that were not treated with hormone.

Experimental Group	n	Plant height (cm)
Brassinosteroid treated	4	64.3 $\pm$ 4.5
Control	4	30.1 $\pm$ 6.1

## Discussions

The discussion is where the results are explained in plain language, interpreting them both in the context of the original hypotheses and of previously published work. The results are also likely to point to new avenues of research.

Do not simply restate the results in the discussion; instead discuss the key findings and their biological significance. The organizational structure of a good discussion is a mirror image of that presented in the introduction. The narrative will proceed from specific interpretations of the results in light of the

hypotheses, all the way to implications for the broad context with which the introduction begun. To construct a well-written discussion the following are guidelines:

***Interpret the results of the analyses in light of the questions/hypothesis***

- Reiterate the main findings in plain language (i.e., describe the main outcome(s) of the analyses).
- Discuss whether these results support or refute the hypotheses.
- Discuss whether the results are consistent with what others have found if similar experiments/studies exist. If they are consistent, then the results represent a general principle, and aren't specific to the limited conditions of the experiment. If they are not consistent, propose some explanations for the discrepancies.

***Do not simply attribute unexpected results to human error***

- Generate and discuss alternate hypotheses to explain the results.
- Discuss any limitations or shortcomings to the research approach, and how might these be remedied in future studies.

***Discuss remaining/newly open questions***

- Often, some or all of the results might contradict the expectations, or lead to more questions that might be the subject of further experiment. Discuss any such situations and suggest ways to possibly clarify the issues with further work. It's important to remember that a particular hypothesis is tested over a very limited set of conditions in a single species—thus, generalization to all species, and all resource levels from the single study cannot be done. The best way do is draw conclusions from the studies own limited experiment, and then relate it to the findings of others. In other words, where should the research go from here?
- If others have done similar studies and the results contradict theirs, discussion of why the results differ must be done.

Results and Discussions are not separate sections rather they are together wherein this chapter (Chapter 4 Results and Discussion) provides the data and the interpretation of these data with supporting literatures and studies. This is also the reason for the review of related literature sections since discussions citing studies comes from this. Refer to the examples on the next page.

Example 1:

*“Figure 1A presents the inhibition percentage of ear edema after 1 hour of treatments administration. The graph shows the percentage of inhibition in four treatments, T0 (distilled water) have 0.56%, T+ (diclofenac sodium) have 25.83%, T1 (50mg/kg leaf extract) have 46.27% and T2 (100mg/kg leaf extract) have 28.21%. Statistical analysis using one way ANOVA result shows a P value of 0.0001 which is less than 0.05. This indicates that there are at least one or more treatments that have significant difference with each other. Followed by the Tukey's multiple comparison test to verify the treatments that have significant difference with each other. The (\*\*\*) indicates that the two treatments have highly significant difference with each other and (\*\*) indicates very significant difference with the two treatments. T0 vs T+, T0 vs T1, T0 vs T2, T+ vs T1 and T1 vs T2 have highly significant difference with each other while T+ vs T2 have very significant difference with each other.*

*As noticed from the results, the inhibition percentage of each treatment varies and an obvious difference among treatments is observed. It also shows that T0 is the least effective and T1 as the most effective anti-inflammatory agent. Though edema inhibition is quite observable in three different groups (T+, T1 and T2), the percentage of inhibition was still minimal because the first or initial phase of acute inflammation is happening. According to Onofrio (2013), during the first phase of acute inflammation, the blood*

vessels dilate. During this phase, the injured area specifically the ear shows redness and mice feel heat in that area. Also, Ma et al., (2013) stated that initial phase (0-1h) is attributed to the release of serotonin, histamine, bradykinin and substance P. It is suggested that administration of the treatments is not fully penetrated due to the overlapping of anti-inflammatory and pro-inflammatory mediators.”

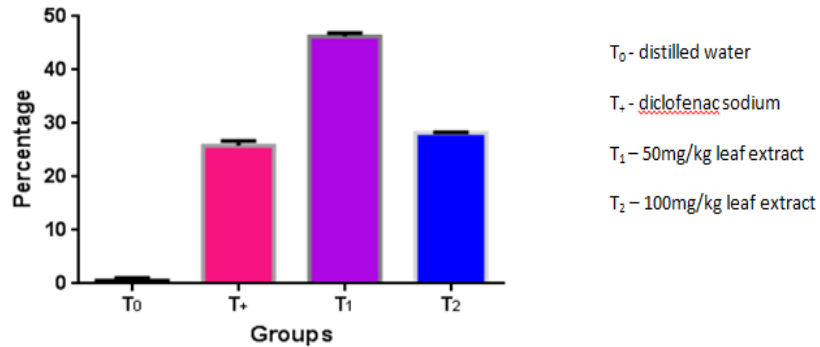


Figure 1a. Ear Edema Inhibition in 1 hour

Example 2:

“Presented in Table 2 are the mean/average results of the weight of the right ovary of female ICR mice. The water alone group obtained a mean of 0.056 mg which was the highest among the treatments followed by L-taurine having 0.043 mg and 0.040 mg for 50% extract. The fourth highest was the 25% extract which possessed 0.033 mg, 75% extract having 0.026 mg, 100% extract which revealed 0.021mg and the lowest was the MSG treated group which have 0.019 mg. The occurrence of such drastic decrease in the organ weight was caused by some underlying cytoarchitecture distortion most of it driven by the oxidative stress induced by MSG this was supported by the results of Ilegbedion et al., (2013) and Ewaka et al., (2011).”

Table 2: Mean weight of female ICR mice right ovary.

Treatment Groups	Mean
T0 (Normal Control) Water Alone	0.056 mg
T- (Negative Control) MSG Alone	0.019 mg
T+ (Positive Control) L-taurine	0.043 mg
T1 25% Extract + MSG	0.033 mg
T2 50% Extract + MSG	0.040 mg
T3 75% Extract + MSG	0.026 mg
T4 100% Extract + MSG	0.021 mg

## VI. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Summary section briefly summarizes the study with its findings in 1 or 2 pages concise and direct to the point. It does not have to include the numerical data gathered from the study.

The Conclusions section reiterates in a brief but concise manner the findings of the study. It does not have to clarify if the hypotheses made in the study were accepted nor rejected since these were already explained in the Results and Discussion section.

Remember that the Conclusions section presents the major results in congruence to the statements of the problem from the Introduction (Chapter 1) as these answer the latter.

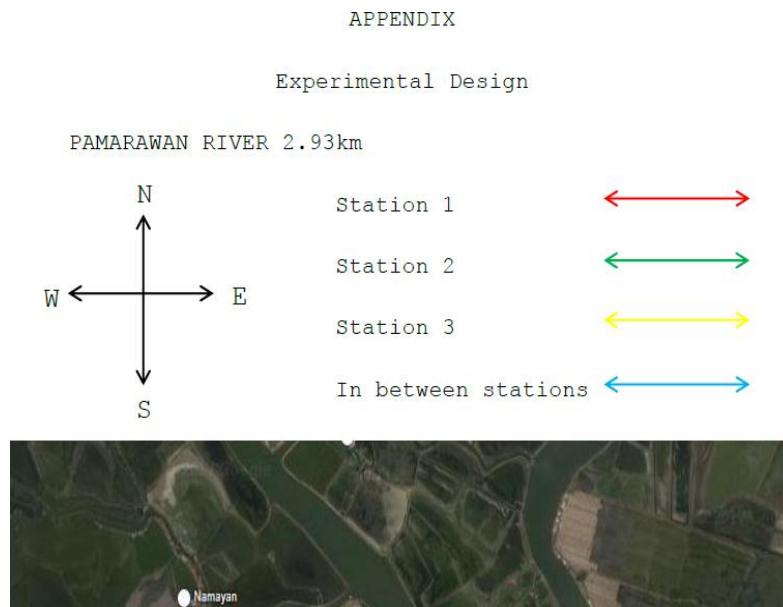
The Recommendations Section shows the future directives and researches based on the study. It includes statements, proposals and suggestions that were not included or undertaken in the study due to limitations that can be considered to be done in succeeding researches.

## ***VII. BIBLIOGRAPHY***

This section presents the references and cited literatures used in the manuscript. These include books, published and unpublished journals, periodicals and website references.

## ***VIII. APPENDICES***

This section presents all the pertinent raw data gathered from the study. These range in order of presentation of raw numerical data, statistical analysis data tables, ANOVA tables, maps (if applicable), certifications, letters, and receipts. These are included with headers. Refer to the example below:



## **Plates**

This section presents the pictorial documentations that support the conduct of the study. Here pictures are given brief present tense captions to provide information on each photo.



Plate 7



Plate 8

Soaking of Balakat Leaf

### Citing Literature in the Text of a Scientific Paper

Whenever information is mentioned that is not common knowledge or was not obtained personally (through experiments or observations), a reference must be included to indicate the source of that information. Failure to cite the work of others not only does not give proper credit to the researchers, but is considered plagiarism.

There are several ways that references can be cited in a scientific paper. Format is described here. Scientific papers usually do not use footnotes (so do not). Following, there are several examples of appropriate ways to cite scientific publications in the text of the paper:

For a single authored publication, the following are suggested:

*“Most of the information in this guide on how to write a scientific research report originally appeared in Gubanich (1985).*

*Purple flowers are often pollinated by yellow-tailed bats at higher latitudes (Martinez, 2001).”*

For two authored publications, these are appropriate in-text citation formats:

*“Some birds are primarily insectivorous and probably obtain all the water they need from the body fluids of the insects they eat (Jones and Smith 1963).*

*Johnston and Peters (2014) also showed that pigs sometimes vomit after eating pickled yams.”*

However, use the later way of referencing sparingly, as the information is the most important part of the sentence, not the authors.

If three or more authors wrote a single reference (such as Oksche, Farner, Serventy, Wolff and Nichols, 1963), the citation is abbreviated as follows:

*“The zebra finch was found to differ in these respects from the species observed in this study (Oksche et al., 1963).”*

In this case only the last name of the first author is used, followed by the abbreviation et al., Both are Latin; et means “and” and al is an abbreviation meaning “others” (hence, “and others”).

When this reference is listed in Literature Cited, however, all the authors must be included. If reference to more than one publication is required in the same sentence, place the citations in the appropriate parts of that sentence, as shown below:

*“Although not all birds have to drink water (Jones and Smith 1963), there are numerous exceptions (Taylor 1964, Smith and Smith 1968, Altert et al., 1969). The metabolic rate of the species seems to play a role (Harrigan 1965) as well as the food source (Montgomery and Landers 1966).”*

### **Thesis Preparation and Defense Guidelines**

A thesis is a major requirement for graduation for the students of the Institute of Arts, Sciences and Teacher Education.

IASTE students prepare their preferred study or topic for their theses in the Research course. Topics for research or thesis are carefully scrutinized by the Research Instructor with the Thesis committee which comprises of the Panel members, the Chair (usually the program head or dean) and the Adviser.

A thesis Adviser is assigned by the Research Instructor to each student as soon as they come up with their research problems.

The research topic, as much as possible, should be in consonance with the institution’s vision, mission and goals or to the local, regional or national research and development thrusts.

For BS Biology students, the research is a 3-semester load. Thesis 1 or Research Writing 1 is on the 2nd semester of their third year which is primarily for the organization of the body (Introduction, Related literature and Methodology) of the proposed research or thesis title and subsequent proposal defense.

Thesis 2 or Research Writing 2 is for the proper conduct of the experiment which is on the 1st semester of their senior year and Thesis 3 is for the final oral defense of the outputs and data gathered on the 2nd semester.

### **Proposal Defense**

The student prepares his/her manuscript with the approved title that includes the introduction and background of the problem, objectives and methods on how to conduct the study which will be examined by the panel which includes the Research Instructor and 2 or 3 critics (depending on the program) with the expertise on the research topic. Format in writing the manuscript is followed. Procedure is outlined on the Thesis Procedure page.

#### **Components of the BS Biology Thesis**

- Chapter 1 Problem and background of the study
  - Introduction
  - Statement of the problem
  - Significance of the Study
  - Hypothesis of the Study
  - Scope and Delimitation of the Study
  - Definition of Terms (difficult terms used in the study)
- Chapter 2 Review of Related literature
  - Related Literature
  - Related Studies
    - Foreign studies
    - Local studies
    - Literature Synthesis

- Chapter 3 Methodology
  - Research Design
  - Research Materials
  - Research Methods
- Results and Discussions
- Summary, Conclusions and Recommendations
- Bibliography
- Appendix
- Plates
- Curriculum Vitae

### Best Thesis

The Thesis instructor will choose candidates for best thesis based on the oral defense grade and performance in the Research course.

The candidates will eventually present their work during the BS Biology Research Colloquium in which invited external evaluators who specialize in the area will examine the work based on the criteria set forth for best thesis.

Evaluation rubric for the Best Thesis will include the **Guidelines for Selecting Best Thesis** rubric.

### Composition of the Defense Panel

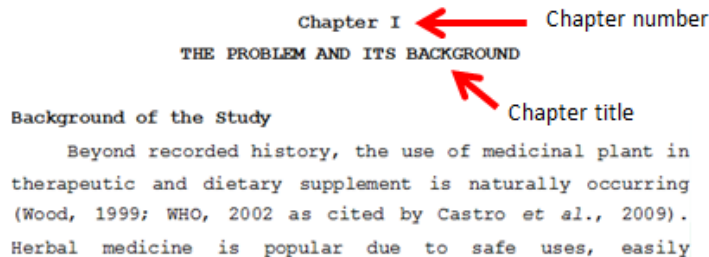
#### The Panel

All researches are carefully examined by a group of critics or panel. The panel is a group of 4-5 people chosen for their expertise based on the research proposed by the student. Below is the structured panel for each program with their specified roles:

- Research Instructor
- Thesis Adviser
- BS Biology Program Head/Field of Study Head
- 2 Internal Critics/faculty with expertise on Biological Sciences

### BS Biology Thesis Technicalities

- Font style is Courier New. Justified.
- Font size is 12.
- Body is not in bold face.
- Titles/Headings are boldface
- Chapter numbers are in sentence-case while chapter titles are in capital letters. Refer to the figure below.



- Margins of the document are:
 

Top: 1"	Bottom: 1"
Left: 1.5"	Right: 1"

- Spacing is 2. With green border. Soft copy will be to be given by the Research Instructor.
- Each chapter should have an introductory paragraph to present the chapter. Refer to the figure on the other page.

## Chapter II

### REVIEW OF RELATED LITERATURE

This chapter presents the literatures and studies of relevance in the research.

#### Related Literatures

#### Botanical Classification of *Ziziphus talanai*

*Ziziphus talanai* is the scientific name of balakat tree, aligamen or talanai. The species authority of *Z.*

- Sentence format for the proposal defense is future tense while for the final defense, since the study has already been conducted, sentence format is past tense.
- Hard bound jacket is White.
- Three (3) copies are submitted for the library, institute and office of the Center for Research and Development.

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## Capstone Project

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### **PART I – Preliminary Pages**

#### ***Title Page***

The Title Page lists a brief descriptive title of the project, names of the individuals submitting the final report, the date of submission, academic division/institution and additional information as may be required. A Capstone Project Title is a distinguishing name given to a work or project describing the scope in a specific context and indicates the content of the paper. The title of the report should present the main topic of the project in a concise, and as appropriate, distinctive manner. It must be broad enough to include all the main concepts involved in the study or to be studied.

#### **Adviser’s Recommendation Sheet**

This section provides space for the signature of the proponent’s adviser indicating that he has examined and recommended the Capstone Project for acceptance and approval. No final Capstone Project documentation will be accepted unless all copies are duly signed by the Technical Advisor and Instructor/Critic.

#### **Panel’s Approval Sheet**

The approval sheet provides space for the signatures of the members of the panel indicating their acceptance of the work. No final Capstone Project documentation will be accepted unless all copies are duly signed by all the members of the defense panel and the Dean.

#### **Acknowledgement**

This section contains the author’s statement expressing appreciation and gratitude to those who have assisted and supported the preparation and conceptualization throughout the completion of the Capstone Project. This page also mentions any sources and permission obtained to quote copyrighted materials. Acknowledgements must be written in a single page and should be expressed in simple and tactful descriptions of the contributions of the acknowledgements.

#### **Dedication**

This section contains the author’s statement expressing honor or affection for someone who have assisted and supported the preparation throughout the completion of the Capstone Project. Dedication must be written in a single page and should be expressed in simple and tactful descriptions of the appreciation.

#### **Abstract**

The abstract is written in a paragraph form in not more than 150-500 words which briefly summarize the contents of the entire Capstone Project. Words should be clear and concise. It should briefly describe:

1. the rationale, background and focus of project;
2. the methods utilized in the project;
3. a summary of the results of the project and;
4. conclusions and recommendations.

The abstract of a Capstone Project becomes a public record of the school. The Dean’s Office collects and binds the Reports and made available to other students in the school library. These abstracts serve as a measure of the quality of scholarly work expected at Mabalacat City College.

#### **Table of Contents**

This page lists the major parts and sections as labeled in the report, including the preliminary pages and the text. Each item listed should have reference to the page number where that item starts in the report.

### **List of Figures/List of Tables/List of Notations**

The final report must be supported with figures, graphs, tables, notations, numbered lists, drawings, etc. These should have self-contained captions and integrated into the body of the report used to present and summarize data in a clear and concise manner.

- Tables are numbered sequentially.
- Table labels are placed above the table, but the captions are placed below the table.
- Figures (charts, graphs, drawings, pictures) are similarly numbered sequentially.
- Figure labels and captions are placed below the figure.

## **PART II – TEXT**

### **CHAPTER 1: THE PROBLEM AND ITS BACKGROUND**

#### **1.1 Introduction**

The goal of the introduction is simply to enable the reader to determine if the study is relevant to the area of interest. The introduction is typically 1-3 pages. The introduction is a pragmatic argument of your study about an issue. It primarily answers the question “What are the most important issues for this topic in terms of the goals of the project and the effects in society”? Speculation is not acceptable unless it is supported by specific evidence or a published reference.

The Introduction presents the specific issues/topics of the Capstone Project and the general strategy used to address the issue(s). This section may present some background information; overall trends and references to studies and literature pertinent to the topic of the project, but thoroughly addressed in the Literature Review section.

The first paragraph of the introduction should focus on the long-term history of the topic.

The succeeding paragraphs present more recent research trends. It also contains the researcher’s firm stand on the need to bridge the gap between existing bodies of knowledge and the prevailing situation. The final section of the introduction states the purpose of the project and the rationale for the approach used to complete it.

#### **1.2 Background of the Study**

The introduction should provide proper context both technical and economic motivation that allows the reader to understand the problem and issue presented. The project setting should clarify the location and the most relevant background of the project:

1. description of the company
2. the product
3. the market
4. and transition into the area that will be the focus of the project.

It also includes discussion on the current status of the process or system that reasonably describes the need for the improvement or redesign and challenge or opportunity the project presents.

#### **1.3 Objective of the Study**

This section states the purpose of the project, providing the reasons for pursuing the study, and identifies its significance. It must name the specific and concrete – if possible, measurable – accomplishments (external and personal) intention of the project. It should answer: “What, exactly, the project is going to accomplish, produce, and/or deliver? It also includes the necessary deliverables and defines a reasonable scope of work.

### ***1.4 Scope and Limitation of the Study***

Limitations are descriptions of the restrictions that have been imposed on the study that are beyond the researcher's concern. Typically, limitations deal with restrictions such as:

1. the voluntary nature of the subjects
2. Inability to control all of the variables which may influence the outcome
3. Limits/impose on the study by participating in the organizations.

Limitation is the descriptions of the ways in which the author has restricted the scope and focus of the study. The description of the scope and limitations pertaining to the research define the restrictions placed on the study to make it doable. The complexity and scope of the project must go significantly beyond the topics covered in any relevant BSIT course. In companies that employ and supervise IT professionals, standards are generally established by the organization and the student will be expected to follow those standards. If the limitation and delimitation are short, they can be combined into a single section.

### ***1.5 Significance of the Study***

This section rationalizes the objectives of the research with that of the statement of the problem. It explains why the research must be done in this area. It also shows detailed and specific discussions on who benefits from the output of the study and how they are going to benefit from it.

### ***1.6 Definition of Terms***

Many terms are subject to variety of interpretations. In a research study you need to define the terms clearly to avoid ambiguity and confusion. Such terms should be defined operationally according to the precise meanings they are intended to convey. There are two (2) types of definitions:

1. Conceptual which is the universal meaning given to a word or group of words.
2. Operational which is the meaning of the concept or term as use in a particular study.

## **Chapter 1 Guide:**

### ***Chapter 1: The Problem and Its Background***

#### ***1.1 Introduction Topic***

-in general: What is the research all about?

#### ***1.2 Background of the Study Topic***

in specific:

- Establish the need for conducting the study Problems with existing research/design/locale/system.
- How other researchers addressed the problem.

#### ***1.3 Objectives of the Study General***

- The general objective of this study is to ...
- Specific In line with this, this study aims to achieve the following specific objectives:

#### ***1.4 Scope and Limitations Anchored to the objectives***

- The study covers...<general objective>.
- Furthermore, the study aims to <specific objectives>.
- Its purpose is in the hope of <WHY...details here>. <Detailed discussion of the coverage of the study>.
- The study will be conducted in <WHEN and WHERE details>.
- Due to design constraints, this study does not cover.... <WHAT are the things you will not include intentionally (boundaries to reduce amount of time spent in certain areas). Out of scope of the study>.

#### ***1.5 Significance of the Study***

- Below is a list of significant contributions of the study: In global context, the study will...
- In economic context, the study will...

- In environmental context, the study will...
- In societal context, the study will...

### ***Chapter 2: Literature Review***

This section presents the written works and studies that exhibit importance and similarity with the proposed study. It also discusses the capabilities and limitations of existing researches, theories and paradigms that are related to the study.

A literature review surveys a minimum of twenty (20) scholarly articles, books and other sources relevant to the area of your study which should mainly include current (within 3-5 years) literature and studies. The focus of the literature review is to summarize and synthesize information from these sources. It should explain what is known or is unknown about the problem; identify areas of controversy in the literature; and formulate questions that need further research.

The literature review has an introduction, a body, and a conclusion, and should be a minimum of five (5) pages. A brief introduction should preview the type of literature that will be reviewed, identifying the main literature that made a great impact on the study. In the body, research studies and other types of literature are grouped according to themes (logically) and arranged chronologically. Subsets of the literature are organized under sub-headings. Each subset is concluded with a summary statement relating that section to your problem. At the end of the chapter, a concluding paragraph summarizes the main findings that will lead to the research questions.

In the body, research studies and other types of literature are grouped according to what they have in common, i.e., qualitative versus quantitative approaches, conclusions of authors, specific purpose or objective, chronology, etc. The studies or articles are summarized using the most space for the most important ones.

Reviewing the literature is a continuous process. It begins before a research problem is finalized and continues until the report is finished. The process involves several steps: a) searching for existing literature and studies within the area of study b) reviewing the selected materials c) developing a conceptual framework which becomes the basis of the study.

Formats for references, citations and quotations must be based on the Institute of Electrical and Electronics Engineers (IEEE).

### **Chapter 2 Guide:**

#### ***Chapter 2: Review of Related Literature and Studies***

2.1 Topic 1 – In order

2.2 Sample Topic 2 – IEEE Citation style (See APPENDIX 20)

-Place bracketed citations within the line of text, before any punctuation, with a space before the first bracket. Number your sources as you cite them in the paper. Once you have referred to a source and given it a number, continue to use that number as you cite that source throughout the paper. When citing multiple sources at once, the preferred method is to list each number separately, in its own brackets, using a comma or dash between numbers, as such: [1], [3], [5] or [1] - [5].

The below examples are from Murdoch University's IEEE Style LibGuide. Examples of intext citations:

*"...end of the line for my research [13]. This theory was first put forward in 1987 [1]. Scholtz [2] has argued that ... Several recent studies [3], [4], [15], [16] have suggested that... For example, see [7]."*

## 2.3 Conceptual Framework

- analytical tool with several variations and contexts
- an overall picture is needed
- used to make conceptual distinctions and organize ideas
- capture something real and do this in a way that is easy to remember and apply examples

## **CHAPTER 3: METHODOLOGY**

This section is the schema that maps out the sources of data, the type of data to be collected, how the data will be collected, and the methods to be used in data analysis. Identify, in this section, your intended methods or modes of research (more on the “how” – and this is an important requirement of every Capstone project.

### **Chapter 3 Guide:**

#### ***Chapter 3: Methodology***

##### 3.1 General Method Used

- Discuss what method/s you will use in your study.
- This study used descriptive method of research
- Discuss how descriptive method will be used.

##### 3.2 Procedures Anchored on the objectives

- If software development is to be used, support it with figure and citations.

*“Figure 5: Prototyping (Source: Infosys, 2015)*

*Some components are: Requirements Analysis/ Documentation Design of software, Product / Processes Development and Testing Plans Description of Prototype Implementation Plan”*

Specific analysis tools are used to illustrate the existing and the proposed systems as well as the requirements of the project. The analysis tools that may be used are:

- Visual Table of Contents
- Data Flow Diagrams
- Entity-Relationship Diagram
- System Flowchart
- Program Flowchart
- Character Models
- Storyboard

## **CHAPTER 4: RESULTS AND DISCUSSIONS**

After the data have been gathered and analyzed, it is now the task of the researcher to prepare a written report on the results of the study. It is important that the research output be presented in an organized, coherent and understandable manner. Data analysis describes how the data are organized into tables or graphs and analyzed and what statistical package and comparisons are used. The discussion gives meaning to the data, explains their significance, and relates them to a broader context.

### **Chapter 4 Guide:**

#### ***Chapter 4: Results and Discussions***

Anchored on the objectives and procedures

- Requirements Software, Product/Processes Screen Shots Development and Testing Results Prototype
- Implementation Results

## **CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

The summary of findings presents the results of chapter 4. The results are anchored on both the objectives and chapter 4. It summarizes the main focal of the study and their significance. Create a list of specific findings and fully describe each. Do not introduce new ideas in this section.

The conclusion section furnishes future undertakings based on the analysis and conclusion of the study. All conclusions should refer to conclusions drawn in previous sections and should state that all the requirements of the problem statement have been met.

Recommendations are specific actions to be taken associated with the conclusions and economic analysis.

### **Chapter 5 Guide:**

#### ***Chapter 5: Summary of Findings, Conclusions and Recommendations***

Summary of Findings Summary of each result from chapter 4

- One paragraph for every results Conclusions
- Directly describe how the objectives were met or not Recommendations
- Enumerated Based on the limitations of the study
- Objectives not met or met but with encountered challenges

### **References**

The list of References is a working resource and should include a minimum of twenty (20) materials and sources that were used in the research and preparation of the Capstone Project and cited in the text of the Report. The References list documents the sources used and provides the information necessary to identify and retrieve each source.

### **Appendices**

- User's Manual - Letters / communications / certifications - Diagrams/Models - Certificate of Plagiarism Scanning - Certificate of English Critic - Curriculum Vitae

The appendices should include those items which contain detailed information that is referred to in the text of the report, and are helpful to the reader, but too complex or large to include in the body of the report. Items often include a large table, lists of words, or a sample questionnaire or survey. A single appendix item is labeled Appendix, but if there is more than one, Appendix items are labeled with a capital letter (Appendix A, Appendix B, etc.) as they are referenced in the text. Each appendix item must also have a title. Appendices are referred to by their labels in the text.

## **FORMAT AND STYLE**

Capstone Project Main Documentation should adhere to the following standards and format.

### *General Capstone Format Guidelines*

#### **I. General Document Guidelines**

- ✓ Margins: 1.50-inch left margin, one inch on the remaining sides (top, bottom, right)
- ✓ Font Size and Type: 12-pt. Times New Roman
- ✓ Line Spacing: Double-space throughout the paper, including the title page, body of the document, references, appendixes, footnotes, tables, and figures.
- ✓ Spacing after Punctuation: Space once after commas, colons, and semicolons within sentences. Insert two spaces after punctuation marks that end sentences.
- ✓ Alignment: Justified
- ✓ Pagination: The page number appears one inch from the right edge of the paper on the first line of every page.

II. Abstract: The abstract is a one-paragraph, self-contained summary of the most important elements of the paper.

- ✓ Pagnation: The abstract begins on a new page.
- ✓ Heading: "Abstract" (centered on the first line below the running head)
- ✓ Format: The abstract (in block format) begins on the line following the Abstract heading.

The abstract word limit is set by individual journals. Typically, the word limit is between 150 and 250 words. All numbers in the abstract (except those beginning a sentence) should be typed as digits rather than words.

### III. Body

- ✓ Pagnation: The body of the paper begins on a new page. Subsections of the body of the paper do not begin on new pages.
- ✓ Title: The title of the paper (in uppercase and lowercase letters) is centered on the first line below the running head.
- ✓ Introduction: The introduction (which is not labeled) begins on the line following the paper title.

### IV. References

All sources included in the References section must be cited in the body of the paper (and all sources cited in the paper must be included in the References section. Citations are numbered in the references according to how they sequentially appeared in the document).

## GENERAL ACADEMIC ARTICLE WRITING GUIDELINES

- I. **Title.** It should contain maximum of eight (8) to fifteen (15) words, intended to attract the reader's attention. It should clearly reflect the main theme, issue, nature and focus of the study and not create false expectations. It should be as specific as possible given the restrictions on length. A title should preferably answer the following questions: - What will be researched? The main theme or the research topic. - How will the topic be researched? The research designs. -With Whom? (optional) Describes the research population and measurement. - Where/ in what context will the study be conducted? (optional) The geographical area.
- II. **Abstract.** It is a short summary of the research study with a maximum length of two hundred (200) to two hundred fifty (250) words. It serves as an important advertisement that provides an opportunity for the researcher to impress readers. According to Hebding, et al., (2003), an abstract has the following elements:
  - Element 1: The abstract has to start with a brief theme sentence to orientate the reader about the overall issue addressed in the article. This sentence should grab the reader's attention.
  - Element 2: The abstract should indicate the main purpose of the study.
  - Element 3: Next the academic and/or practical importance of the study should be explained (sometimes combined with Element 2)
  - Element 4: The methodology used in the study should be briefly described.
  - Element 5: The main findings of the study should be summarized.
  - Element 6: A statement of conclusions should indicate the contribution mad by the study in filling gaps in the literature
  - Element 7: Finally, the practical or managerial implications of the study's findings should be highlighted where appropriate.
- III. **Keywords.** The keywords serve as hooks that draw the attention of potential readers and are also used to locate research study in an electronic database. A maximum of six (6) to eight (8) keywords should be included placed directly after the abstract. The keywords should preferably reflect the discipline, sub-discipline, theme, research design and context (industry and/or country) of the study.

- IV. **Introduction.** The recommended length for the introduction is five hundred (500) to one thousand (1000) words. It can be described as "... an executive summary that gives the reader and an enticing glimpse of what is to come". The introduction must grab the reader's attention by simulating attention, interest, desire and action and must effectively "sell" the study. Unfortunately, the introduction is often the most difficult part of an article to write.

An introduction has the following elements:

- Element 1: The writer first has to state the broad theme or topic of the study.
  - Element 2: Provide a convincing answer to the question: "Why should anyone be concerned about this article?"
  - Element 3: Summarizes the available literature and cites the most important previous studies that are relevant to the current research.
  - Element 4: Indicates the most important gaps, inconsistencies and/or controversies in the literature that the current study will address.
  - Element 5: Provide core research problem/question to be addressed in the study, or research objectives that will guide your research, or context in which the study will be conducted, and the units of analysis of the study.
  - Element 6: Finally, one has to provide the reader with an outline of the structure of the rest of the article.
- V. **Related Literature.** The recommended length is one thousand (1,000) to two thousand (2,000) words. In the literature review, the researcher critically evaluates, re-organizes and synthesizes the work of others. The purpose of a literature review is to "look again" (re + view) at what other researchers have done regarding a specific topic (Leedy & Ormord, 2005). A literature review is a means to an end, namely to provide background to and serve as motivation for the objectives and hypotheses that guide your own research.
- VI. **Methodology.** The suggested length is five hundred (500) to one thousand (1,000) words. Methodology describes the steps followed in the execution of the study and also provides a brief justification for the research methods used. It should contain enough detail to enable the reader to evaluate the appropriateness of your methods and the reliability and researches.
- VII. **Results and Discussions.** The results and discussion section comprises one thousand (1,000) to two thousand five hundred (2,000) words that summarizes the data collected for the research study in the form of descriptive statistics and also reports the results of relevant inferential statistical analyzes (eg., hypothesis tests) conducted on the data. (American Psychological Association, 2001). Findings should be presented as concisely as possible but still provide enough detail to properly justify conclusions and enable readers to understand exactly what the researchers did in terms of data analysis and why.

Results can be presented as follows:

- Use of table
  - To show many and precise numerical values and other specific data in a small space.
  - To compare and contrast data values or characteristics among related items or items with several shared characteristics.
  - To show the presence or absence of specific characteristics.
- Use of figure
  - To show trends, patterns, and relationships across and between data sets when the general patterns is more important than the exact data values.
  - To summarize research results.
  - To present a visual explanation of sequence of events, procedures, geographic features or physical characteristics.

- Use of text
  - When the researcher doesn't have extensive use of complicated data to present.

VIII. **Summary of Findings, Conclusions and Recommendations.** Usually three hundred (300) to four hundred (400) words. It presents the interpretation of the results given in the result section. Draw what the result mean and what actions should be taken as a result of the findings.

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## Feasibility Study

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A feasibility study is a systematic plan and analysis of the sustainability of a project taking into consideration factors such as marketing, production or technical issues, organizational and management aspects and financial implications. Such a study is designed to provide details on issues related to courses of action to be taken. The objective of which is to test the viability of a specific action (Laverly and Littel, 2020; Wright, Hofstrand, and Holz-Clause, 2020).

### Steps in Conducting a Feasibility Study

- Perform a preliminary analysis. Begin by drafting an initial plan focusing on what you are looking to achieve and why. Next is to examine the uniqueness of the idea on both its strengths and weakness. Then, get an overall feel of the type of potential customers. Finally determine the risks that could possibly reduce the viability of your idea.
- Outline the project scope. Define the area of study by the core tenets of this project including what the current situation or issue is that you plan to solve, what you plan to accomplish, estimations on the impact of the project, and what it will take to accomplish this goal.
- Plan your data collection procedures. Determine the data you need based on exactly what you want to achieve. Carefully consider what methods (i.e., survey, interview/focus groups, observation, archival research, secondary data collection) you will use to gather data that is best suited for your project.
- Carry out your market research. In conducting your market survey consider the industry, competitors, market share, target customers, trends and outlook. The goal of which is to have a realistic understanding of the potential sales that can be expected if the project is undertaken.
- Plan the business organization and operations. Establish the organization and operations requirements of the planned project. This should contain staffing requirements, including management and labor alignment. Likewise indicate costs addressing facilities, equipment, supply, and overhead.
- Calculate the financial costs and projections. The financial costs associated with your proposed idea will depend on resources required for the implementation. Things to consider here include what services are required and how much they'll cost, any adjustments to revenues and operational costs.
- Review and analyze all information. Reexamine your previous steps and evaluate everything you've uncovered. This is also the time to think about risk, analyzing and managing, and come up with any contingency plans.
- Make a go/no go decision. Based on your findings determine whether the project is technically, operationally, and economically feasible. The feasibility study should provide you the answer of either moving ahead with the proposed idea or action or scrapping the idea and looking for something different.

MCC Feasibility Studies shall be conducted by undergraduates to identify the viability of a potential business venture or project. It should identify problems and opportunities, determining objectives, describing situations, defining successful outcomes and assessing the range of costs and benefits associated with several alternatives for solving a problem.

The following shall be the recommended content of the study:

- ✓ **Executive Summary.** Delivers all the key sections of the feasibility study.
- ✓ **Introduction.** This section presents the context on which the project would be based on.
- ✓ **Background of the Study.** Provides a brief but comprehensive description of the product or service to be studied.

- ✓ **Statement of the Problem.** Requires explaining or describing the problem or challenges that have prompted the feasibility study.
- ✓ **Objectives of the Study.** States what the researchers intend to achieve or accomplish in the feasibility study. Specifically, it should state financial, marketing, operational, management or organizational goals.
- ✓ **Significance of the Study.** Provides an explanation on how the study will be advantageous to different parties and stakeholders.
- ✓ **Scope and Limitation of the Study.** Refers to the parameters and the areas to be explored and investigated.
- ✓ **Methodology.** Provides specific procedures and techniques applied to collect and analyze the data of the study.
- ✓ **Marketing Study.** A market analysis enables defining the competitors and quantifying target market within an industry by analyzing the potential overall interest about a product and/or service. Market can be defined in terms of size, structure, growth prospects, trends, and sales potential. This information allows for better strategy on how to position a particular product and/or service in competing for market share.
- ✓ **Product/Service Description.** Describe the type and quality of product(s) or service(s) to be marketed.
- ✓ **Industry Profile.** Describe the size and scope of the industry, market or market segment(s)
- ✓ **Industry Competitiveness.** Describe the industry concentration including that of major competitors.
- ✓ **Specific Market Potential.** Define and describe the target market(s); Assess market usage and potential share of the market.
- ✓ **Sales Projection.** Estimate usage and project sales under various assumptions (i.e., selling price, services provided, etc.).
- ✓ **Organization and Management Study.** Organizational feasibility aims to assess the competence of management to bring a product or idea to market. It should include workforce review and required training.
- ✓ **Organizational Structure.** Define the business model and proposed structure of operations.
- ✓ **Personnel Requirements.** Outline the staffing structure along the lines of authority and decision making.
- ✓ **Technical and Product Description.** Technical feasibility assessment focuses on the technical resources needed to run the project.
- ✓ **Process Flow/Operational Process.** Describe enough how the operations will be conducted (i.e., manufacture, source or create and deliver, etc.) (Thompson, 2005).
- ✓ **Facility Needs.** Estimate the size and type of facility and capacity requirements including the need for related buildings, equipment, furniture and fixtures.
- ✓ **Operating Costs.** Identify all needed on-going costs for production and operations.
- ✓ **Financial Study.** A financial analysis seeks to project revenue and expenses expected upon implementation of a project. This includes a financial narrative of estimated project costs and valuations. It should estimate the potential sales that the endeavor will generate. Another critical part here would be determining the breakeven point, which is the level of operations that results in exactly enough revenue to cover costs. It should reflect that the financial benefits exceed the financial costs.
- ✓ **Capital Requirements.** Evaluate how much funding will be needed including the source of financing.
- ✓ **Forecasted Statements.** Present balance sheet, income statement and cash flow projections.
- ✓ **Financial Analysis.** Conduct break-even analysis and cost benefit analysis.
- ✓ **Conclusions and Recommendations.** This section should determine if criteria have been met to move the project forward. It would serve as the basis in developing strategy in the form of a business plan.

- ✓ **Conclusions.** Identify business scenarios and alternative business models relating to the likelihood of success, risks and projected return on investments.
- ✓ **Recommendations.** Develop a schedule of potential courses of action that may include: Choosing the most viable scenario or model; and then (a) developing that scenario's business plan; (b) proceeding with creating; and (c) operating the project or business.

#### **Panel of Evaluators for Business Education Feasibility Studies**

The members of the panel for evaluating feasibility studies of Business Education students include the following:

- Chair of the panel
- Members
  - Internal critic
  - External critic
- Adviser

#### **Note:**

- The critics of the feasibility study which are members of the panel should have specializations in business and management.
- The final paper of a student should undergo grammar check by a manuscript proofreader preferably an English Critic.
- Citation and referencing format for feasibility studies use the APA format (See APPENDIX 19).

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## The Research Instructor

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The Research Instructor is a faculty of the Institute with at least a Master's degree in his/her field of specialization who have already conducted and presented research papers national and international.

The Research Instructor has the overall responsibility of guiding the students in writing their thesis. The following are the duties of the Research Instructor:

1. **Introduces the parts of the research/capstone project/feasibility study.** The research instructor introduces the components of the research/capstone project/feasibility study by providing the necessary information and approach in writing the paper
2. **Guides the student in conceptualizing the topic for research/capstone project/feasibility study.** The research instructor provides ideas for the study/project relevant to the program. Additionally, the research instructor helps the student to refine the title by providing constructive criticisms.
3. **Guides the student in writing the paper.** The research instructor helps the student in generating the paper by introducing the components of the paper and may also continuously check technical and grammar errors. Also, the adviser may give the students the directions on the proper format of the written output. Moreover, the research instructor prepares the student/s in their oral defense with assistance from the appointed adviser.
4. **Selects the adviser for the student/s.** The research instructor appoints the adviser and panel for the oral defense of the student based in the guidelines provided on the next page.
5. **Endorse the manuscript for oral defense.** Once the adviser of the student decides that the paper and the student are ready for oral defense, the research instructor prepares for the schedule of the oral presentation and communicates with the panel for the aforementioned.

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## Guidelines in the Selection of an Adviser

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The adviser has the overall responsibility of guiding the students in completing their thesis. The following are the duties of the thesis adviser:

6. **Supervise the overall conduct of student research.** The participation of the adviser starts from the proposal stage up to the manuscript's final revision stage. The adviser regularly confers and meets with his or her advisees. The adviser may suggest the following but is not limited to: 1) research topic, 2) framework, and 3) methodology. The thesis adviser must also have adequate time available for advising the students. More so, s/he must be able to provide continuing feedback to the subject area coordinator regarding the progress and development of the students' project. The Thesis adviser should keep communications open with the research instructor on the guidelines the instructors made, research paper format, research forms, research procedures, calendar of defenses and templates.
7. **Check errors and required corrections on the manuscript.** The adviser may also continuously check technical and grammar errors. Also, the adviser may give the students the directions on the proper format of the written output as well as statistical aspects of the study. Aside from research panelists, the research adviser is the only authorized person to make any changes on the research manuscript.
8. **Supervise the technical aspects in the writing of the research proposal.** The adviser should be physically present during the proposal defense. Once the proposal defense is complied with, the adviser should constantly monitor the progress of the manuscript. Thesis adviser is the co-author of his/her thesis advisee's research paper. It means he/she has the obligation to guide and advise on how to write the research manuscript, establishing the tests of validity and reliability of research paper, establishing the safety of the advisees during data gathering or during product development and the likes.
9. **Set the deadlines for their advisees.** The deadline is within the discretion of the adviser; however, paramount consideration is made regarding institutional deadlines. The adviser should evaluate first whether the manuscript is ready for defense or not. Thesis adviser is allowed to withdraw from his/her advisership with valid reasons, like student-researchers failed to submit manuscripts on time; the adviser's timeframe cannot meet the deadline; student-researchers failed to respect the authority of the adviser and the like.
10. **Endorse the manuscript for final defense.** The determination whether or not a manuscript is ready for defense is within the sound discretion of the adviser. Once the adviser deems the manuscript ready for defense, s/he should affix his/her signature in the approval sheet, thereby recommending the student paper for examination. The adviser should be present during the final defense. Once the final defense is complied with, the adviser should constantly monitor the progress of the final copy of the manuscript including revisions and deletions and or major or minor changers. As co-author of the student research paper, the adviser may present the research output and have it published upon the knowledge and approval of the student researchers. The student researchers should be the ones to present the research output in any conference or colloquium should the opportunity to present come along.

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## Guidelines in the Selection of a Statistician

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1. The statistician agreed to be the research paper statistician upon signing the Advisory Committee Form (APPENDIX 5).
2. Quantitative research papers should be analyzed and/or verified by the statistician/s of the college.
3. Statistician should be expert in statistics based on their educational qualifications and experiences
4. Upon signing the advisory committee form, research statistician has the obligation to analyze the data gathered by the students
5. Research statistician can withdraw from his/her role if the student-researcher failed to follow his/her guidelines, feel being disrespected by the student-researchers and the etc.
6. Statistician should be consulted at least twice by the researchers. One of the consultations is before research proposal for methodology chapter and the other consultation is during data analysis.
7. Before research proposal defense, students need to fill up the Statistical Service Form (APPENDIX 8), with the following content:
  - a. Research Title
  - b. Statement of the Problem or Research Objectives
  - c. Conceptual Framework and/or Theoretical Framework (if applicable)
  - d. Methodology
  - e. Questionnaire
8. Note that only papers utilizing quantitative research design and mixed designs with complex statistical analysis will undergo a statistical confirmation and certification from the Office of the Center for Research and Development.
9. For data analysis, students need to fill up the Statistical Service Form (APPENDIX 8), with the following content:
  - a. Research Title
  - b. Statement of the Problem or Research Objectives
  - c. Conceptual Framework and/or Theoretical Framework (if applicable)
  - d. Methodology
  - e. Questionnaire
10. The summary of the data gathered in Microsoft Excel.
11. The consultation hour spent by the statistician on the research papers can be counted as the consultation hours required to every faculty of the college.
12. Statistician can only sign the Certificate of Statistical Treatment if researchers were able to meet the consultations required to them.
13. If in case there are some changes to accomplish on data analysis due to students' error, additional compensation will be applied:
  - a. 75% - when a new statistical tool is needed to generate more information
  - b. 50% - when there are additional statements of the problem or research objectives where reprocessing of data due to student errors is required
14. Accepting any form of professional fees directly from the students is prohibited, any professional fee should be included on the tuition fee upon enrolment of the course (Republic Act 6713.)

### Roles

1. The Statistician should avoid manipulation of data at all costs
2. The Statistician should maintain objectivity in handling the statistical work.
3. The Statistician maintains professionalism by respecting their fellow statisticians.
4. The Statistician should explain to the student-researchers the results of data analysis.

5. The Statistician should clarify to the students the rules and expectation to them upon accepting the task.
6. The Statistician should provide guidance to student-researchers in establishing and writing their research methodology.

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### **Guidelines in the Selection of a Manuscript Proofreader**

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1. The proofreader agrees to be the manuscript proofreader upon signing the Advisory Committee Form (APPENDIX 4).
2. The manuscript proofreader should be an expert in grammar based on his/her educational qualifications and/or experiences.
3. Manuscript proofreader can be consulted for checking the research instrument to be used in data gathering by the researchers.
4. Upon signing the advisory committee form, the manuscript proofreader has to edit the research manuscript after the final defense.
5. The manuscript proofreader can withdraw from his/her role if the student-researcher failed to follow his/her guidelines, feel being disrespected by the student-researchers and etc.
6. The consultation hour spent by the grammarian on the research papers can be counted for the consultation hour required to every faculty of the college.
7. The manuscript proofreader can only sign the Certificate of Proofreading Services if researcher was able to meet the consultations required of him/her.
8. In case there are some changes on the manuscript after editing, due to students' error, additional compensation will be applied:
  - a. 100% - when there is a total revision of the research manuscript
  - b. 50% - when there are several changes or additional statement due to student errors
9. Accepting any form of professional fees directly from the students is prohibited, any professional fee should be included on the tuition fee upon enrolment (Republic Act 6713.)

#### **Roles**

1. A proofreader should maintain objectivity in the editing the manuscript.
2. A proofreader maintains professionalism by respecting another grammarian
3. A proofreader should avoid manipulation of results or technical terminologies at all costs.
4. A proofreader should clarify to the students the rules and expectation upon accepting the task.
5. A proofreader should explain to the student-researchers the results of changes made or suggested on the research manuscript.

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### **Guidelines in the Selection of Panelists**

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1. There are at least three (3) panelists to evaluate the proposal. The panelists are composed of a chairman and at least two (2) members. The Chairman should be Ph.D./Ed.D. degree holder or the Program Coordinator or Field of Study Head and the members of panel should be MA graduates (with thesis writing) and/or with experience in writing researches in their areas of specialization or faculty members with specific knowledge on research, statistics or area of specialization.
  - In the event that the Program Coordinator or Field of Study Head is already one of panel members/critic or adviser, the chairman should be anyone in the Institute with Ph.D./Ed.D. degree holder or currently enrolled in Ph.D./Ed.D. studies.
2. Student-researchers should secure the approval of the panelists through the Advisory Committee Form (APPENDIX 6).
3. The panelists in the research proposal should be the same panelists in the final defense.
4. If in any case, due to inevitable reason/s, a particular panelist failed to attend the final defense, he/she forfeits her right to suggest major revisions on the research paper; instead, the suggestions, comments and recommendation in the research proposal will be followed.
5. The decision of the Chairman of the panelists will be the one to follow when disagreement with the other members of the panelists ensue.
6. The Panel of critics/readers for the proposal defense will be the same panel for the final defense.
7. Accepting any form of professional fees directly from the students is prohibited; any professional fee should be included in the tuition fee upon enrolment of the course (Republic Act 6713.)

All researches are carefully examined by a group of evaluators or the panel. The panel is a group of 3-5 people chosen for their expertise based on the proposed research by the student. Below is the structured panel for each program:

- Research Instructor
- Thesis Adviser
- The Field of Study Head
- Panel Chair
- 1 or 2 Internal critic
- 1 External critic/reader (requirement for Business Education papers)

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## **Guidelines for Proposal Defense**

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### ***Pre-proposal Defense***

1. The students will only be allowed to enroll the Thesis Writing Course upon successful completion of all Core, Major, and Cognate courses as prescribed in the student's prospectus.
2. The students must prepare their preferred topic for their thesis in the Research Writing course.
3. The writing and presentation of the topic and proposal commence on the first semester of their senior year.
4. Students may opt to write their thesis in English or formal Filipino (depending on their program research/feasibility/capstone project policy).
5. The research topic, as much as possible, should be in consonance with the institution's vision, mission, goals, or the local, regional or national research and development thrusts.
6. A thesis adviser will be assigned to each student as soon as they produce their research titles.
7. The Research Instructor scrutinizes topics for research or thesis with the Thesis committee, which comprises of the Panel members, the Chair (usually the field of study head or dean) and the Adviser.
8. Students who are unable to defend the study properly will get a failing grade and needs to re-enroll the course to graduate.
9. The research instructor, after consultation with the Field of Study Head, will have the final decision regarding other concerns not mentioned in this manual.

### **Proposal Defense**

1. The student prepares his/her manuscript for Proposal Defense.
2. The manuscript will be examined by the panel, which includes the Research Instructor, adviser and 1 or 2 critic/s who are experts on the topic (depending on the Institute from which the student presenter/s are under).
3. The Institute's format should be followed by the student/s in writing the manuscript for proposal defense.
4. Research instructor will approve the proposed research title of the students, makes referral on the composition of Research Advisory Committee, provide all the forms needed by the researchers to accomplish, give the research format to be followed, and give the timeline/schedule for research proposal and final defense.
5. Research manuscript and rubric for research proposal (APPENDIX 16) should be distributed to the panelists one (1) week prior to the date of the research proposal
6. Groups that are assigned on the same proposal day should coordinate with each other with the guidance of the research instructor regarding the preparation of snacks and food for the panelists
7. The adviser is required to attend the oral defense (proposal and final) of the student advisee/s.
8. After the research proposal, adviser should consolidate all the comments, suggestions, and recommendations of the panelists using the Proposal Revision Notes (APPENDIX 12) duly approved by the research adviser and panelists.
9. The student researchers will be allowed to proceed on data gathering once the Proposal Revision Notes are approved.

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## Guidelines for Final Defense

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1. After gathering sufficient data for the thesis and having the thesis approved by the Adviser, the student may now submit an application for Final Defense to the Research instructor.
2. Note that papers utilizing qualitative and quantitative research design with complex statistical analysis will undergo a statistical confirmation and certification from the Office of the Center for Research and Extension.
3. Before submitting the manuscript for final defense, it should undergo plagiarism scan with no more than 10% proof of original work. In the event where the percentage proof of original work from the scan is more than 10%, the student has to revise the manuscript until he acquires the required 10 % or lower. He/ She will be given 1-week allowance to revise/prepare the manuscript after which he/ she will be scheduled for final defense.
4. One week before the scheduled defense, student needs to submit copies of the final manuscript and final defense grading rubric (APPENDIX 17) to the Thesis Committee.
5. After the final defense, when all comments and suggestions are incorporated, another plagiarism scan should re-check the manuscript. If the final manuscript did not meet the 10% acceptable percentage and deadline set for the revisions, the student will have an incomplete status with 1 year to complete.
6. In case of a failed defense, a student can only have 1 attempt at a re-defense. The re-defense status is upon the discretion of the panel provided it does not jeopardize the deadline for the submission of final grade. Otherwise, the student will get a grade of Incomplete and has 1 year to complete.
7. Research manuscript with appendices and rubric for research final defense (APPENDIX ) should be distributed to the panelists one (1) week prior on the date of the research proposal.
8. Groups that are assigned on the same day of proposal should coordinate with each other with the guidance of the research instructor in regard to the preparation of the snacks and food to be given to the panelists.
9. After the research final defense, researchers should consolidate all the comments, suggestions, recommendations of the panelists using the Final Defense Revision Notes (APPENDIX 12) and it should be approved by the research adviser and panelists before book binding.

**Note:** The status of the student for graduation depends on the decision of the majority of the panel relative to the final defense of his/her paper as the thesis is one of the major requirements for his/her graduation.

### *Post-final Defense*

- After the successful oral defense, the student will revise the manuscript according to the comments and suggestions of the panel. The final revised manuscript will be checked by the adviser, then by the manuscript proofreader and will undergo a final plagiarism scan.
- Before printing and binding the manuscript, a final approval form should be accomplished and duly signed by the adviser, panel members, statistician (if statistical tools were utilized in the study), manuscript proofreader, field of study head, and the Dean.
- A softcopy of the final manuscript, with scanned copies of attachments and accomplished forms must also be submitted to the research instructor.
- Hardbound copies of the thesis will be submitted to the following:
  - Office of the Center for Research and Development
  - Library
  - Institute

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### Guidelines for Selecting Best Thesis

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1. The research instructor will choose candidates for best thesis based on the oral defense grade and performance in the Research course.
2. The candidates will present their work in a colloquium where invited evaluators who specialize in the area will examine the work based on the following criteria for best thesis:

Impact/contribution of the thesis to the body of knowledge	40%
Sufficiently answered the research questions or attained the research objectives posited	30%
Logical flow of ideas presented	20%
Over-all grammar and style of presentation of ideas	10%
<b>Total</b>	<b>100%</b>

3. The research which is found to be highly satisfactory based on the criteria will receive the award for best thesis.

## Appendix 1

### Thesis Fees

Description	Amount	
	Group	Individual
Defense Fees <ul style="list-style-type: none"> <li>• Covers the utility fees used during defense (if it is face-to-face) like electric bill</li> <li>• <b>No fees to be collected for virtual defenses</b></li> </ul>	P100.00	P0.00
Thesis Adviser (Regardless of Educational Qualification)	P2,000.00	P1,000
Chairman (Regardless of Educational Qualification)	P1,500.00	P0.00
Member (Regardless of Educational Qualification)	P1,000.00 per member (counted as two)	P500.00 per member (counted as two)
Statistician (Regardless of Educational Qualification)	(P500)	(P300.00)
Grammarians (Regardless of Educational Qualification)	P500	P300.00
<b>Total</b>	<b>P6, 600.00</b> P6, 100.00 (without statistician)	<b>P2,600.00</b> <b>P2,300 (without statistician)</b>

- The thesis fee is applicable for 1 title or paper and to be paid the whole duration of the research course/capstone project/feasibility study. In the case of a group work, the thesis fee will be divided among the members. See the computation below:

**Computation of thesis fee per semester**

Example:  $6,600 / 2$  (if research course is in 2 semesters) = P3,300 (per semester)

**Computation of thesis fee if divided among members :**

*(Groupings must have a minimum number of five (5) members. Below such a number will only be allowed in special classes that have less than 10 students.)*

a.  $6,600/5$ (if the group is composed of 5 members)=P1, 320 (per student)/ 2 semesters = **P660.00**

b.  $6,100/5$ (if the group is composed of 5 members)=P1, 220 (per student)/ 2 semesters = **P610.00**

**Students will pay P660.00 per semester for research with Statistician and P610.00 per semester for research without Statistician.**

- No direct payment should be given to any member of the faculty or officials of MCC.
- Students can conduct the research defenses even if they have not paid in full the required payment.
- Fees should follow the government provision of collecting extra fees without the violation of the provision of the UNIFAST.
- If there are no professional fees for compensation, proposal is hereby forwarded to give points to the task of the panelists, statisticians and grammarians to be merited in the ranking system of the college.

## Appendix 2

Undergraduate Research Form No. 1

### ADVISER APPOINTMENT FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### APPOINTMENT OF AN ADVISER

(Date) \_\_\_\_\_

**The Dean**  
Institute of \_\_\_\_\_  
This College

**Madam/Sir,**

This is to request the appointment of Mr./Ms. \_\_\_\_\_  
whose signature is affixed indicating his willingness, to serve as **ADVISER** in the  
preparation until the completion of our/my study entitled,  
\_\_\_\_\_.

It is also understood that should there be a need for a Statistician and a  
Proofreader in editing the work, it shall be my responsibility to select with the  
recommendation from our/my Research Instructor.

May this request merits your approval.

Sincerely yours,

\_\_\_\_\_  
**Student's Name and Signature**

**Confirms:**

\_\_\_\_\_  
Degree Program

\_\_\_\_\_  
Adviser's Name and Signature

**Noted by:**

\_\_\_\_\_  
Research Instructor's Name and Signature

**Approved:**

\_\_\_\_\_  
Name of the Dean

### Appendix 3

Undergraduate Research Form No. 2

### PANELIST APPOINTMENT FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga



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#### APPOINTMENT OF A PANELIST

(Date) \_\_\_\_\_

**The Dean**  
Institute of \_\_\_\_\_  
This College  
Mabalacat City

**Madam/Sir,**

This is to request the appointment of Mr./Ms. \_\_\_\_\_  
whose signature is affixed indicating his willingness, to serve as **PANELIST** and  
**MEMBER OF THE PANEL OF EVALUATORS** of our/my study entitled,  
\_\_\_\_\_

The selection of Mr./Ms. \_\_\_\_\_ as panelist is based from the  
recommendation of our/my Adviser and Research Instructor.

May this request merits your approval.

Sincerely yours,

\_\_\_\_\_  
**Student's Name and Signature**

\_\_\_\_\_  
Degree Program

**Conforme:**

\_\_\_\_\_  
Panelist's Name and Signature

**Noted by:**

\_\_\_\_\_  
Adviser's Name and Signature

\_\_\_\_\_  
Research Instructor's Name and Signature

**Approved:**

\_\_\_\_\_  
Name of the Dean

## Appendix 4

Undergraduate Research Form No. 3

### MANUSCRIPT PROOFREADER APPOINTMENT FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### APPOINTMENT OF MANUSCRIPT PROOFREADER

(Date) \_\_\_\_\_

**The Dean**  
Institute of \_\_\_\_\_  
This College  
Mabalacat City

**Madam/Sir,**

This is to request the appointment of Mr./Ms. \_\_\_\_\_  
whose signature is affixed indicating his willingness, to serve as an ENGLISH/FILIPINO  
PROOFREADER of our/my study entitled,  
\_\_\_\_\_

The selection of Mr./Ms. \_\_\_\_\_ as manuscript proofreader is based  
from the recommendation of our/my Research Instructor.

May this request merits your approval.

Sincerely yours,

\_\_\_\_\_  
Student's Name and Signature

Conforme:

\_\_\_\_\_  
Degree Program

\_\_\_\_\_  
Proofreader's Name and Signature

**Noted by:**

\_\_\_\_\_  
Research Instructor's Name and Signature

**Approved:**

\_\_\_\_\_  
Name of the Dean

## Appendix 5

Undergraduate Research Form No. 4

### STATISTICIAN APPOINTMENT FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### APPOINTMENT OF A STATISTICIAN

(Date) \_\_\_\_\_

The Dean  
Institute of \_\_\_\_\_  
This College  
Mabalacat City

Madam/Sir,

This is to request the appointment of Mr./Ms. \_\_\_\_\_,  
whose signature is affixed indicating his willingness, to serve as a STATISTICIAN of  
our/my \_\_\_\_\_ study \_\_\_\_\_ entitled \_\_\_\_\_.

The selection of Mr./Ms. \_\_\_\_\_ as statistician is based from the  
recommendation of our/my Adviser and Research Instructor.

May this request merits your approval.

Sincerely yours,

\_\_\_\_\_  
Student's Name and Signature

\_\_\_\_\_  
Degree Program

Conforme:

\_\_\_\_\_  
Statistician's Name and Signature

Noted by:

\_\_\_\_\_  
Adviser's Name and Signature

\_\_\_\_\_  
Research Instructor's Name and Signature

Approved:

\_\_\_\_\_  
Name of the Dean

**Appendix 6**

Undergraduate Research Form No. 5

**ADVISORY COMMITTEE FORM**



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga



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**ADVISORY COMMITTEE FORM**

**Student's Name/s:**

**Program-Year Level-Major-Section:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Proposed Title:**

\_\_\_\_\_  
\_\_\_\_\_

**Nominated Thesis Adviser:** \_\_\_\_\_

**The following are recommended to the advisory committee:**

**Chair:** \_\_\_\_\_  
**Member:** \_\_\_\_\_  
**Member:** \_\_\_\_\_  
**Statistician:** \_\_\_\_\_  
**Proofreader:** \_\_\_\_\_

**Research Instructor:** \_\_\_\_\_

**Approved by:** \_\_\_\_\_  
**Program Head/FOSH**

**Noted by:** \_\_\_\_\_  
**Dean**

---

**Panel Acceptance**

**We hereby indicate our commitment to serve as members of the thesis/project advisory committee for Group Number \_\_\_\_\_.**

**Adviser:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Chair:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Member:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Member:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Statistician:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Proofreader:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Appendix 7

Undergraduate Research Form No. 6

### PROOFREADER SERVICE FORM



Republic of the Philippines  
MALABACAT CITY COLLEGE  
Malabacat City, Pampanga

Institute  
Logo

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#### PROOFREADER SERVICE FORM

Student's Name/s:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_

Language: \_\_\_\_\_

Title:

\_\_\_\_\_  
\_\_\_\_\_

Thesis Adviser: \_\_\_\_\_

Nature of Consultation/Meeting	Remarks

Attested by:

\_\_\_\_\_  
Proofreader's Name and Signature

Date: \_\_\_\_\_

## Appendix 8

Undergraduate Research Form No. 7

### STATISTICIAN SERVICE FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga



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### STATISTICIAN SERVICE FORM

Student's Name/s:

Date: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title:

\_\_\_\_\_  
\_\_\_\_\_

Adviser: \_\_\_\_\_

Nature of Consultation/Meeting	Remarks

Attested by:

\_\_\_\_\_  
Statistician's Name and Signature

Date: \_\_\_\_\_

## Appendix 9

Undergraduate Research Form No. 8

### PLAGIARISM RUN REQUEST FORM

#### PLAGIARISM RUN REQUEST FORM

##### APPLICANT'S INFORMATION

Full Name: \_\_\_\_\_

Institution: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Title of the Research: \_\_\_\_\_

*To be filled up by Representative:*

Application No.: \_\_\_\_\_

Processed by: \_\_\_\_\_

Official Receipt No.: \_\_\_\_\_

Date Processed: \_\_\_\_\_

Form No.:	Revision No.:	Effectivity Date:	Page: 1 of 1
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*Undergraduate Research Form No.8*

##### APPLICANT'S INFORMATION

Full Name: \_\_\_\_\_

Institution: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Title of the Research: \_\_\_\_\_

*To be filled up by Representative:*

Application No.: \_\_\_\_\_

Processed by: \_\_\_\_\_

Official Receipt No.: \_\_\_\_\_

Date Processed: \_\_\_\_\_

Form No.:	Revision No.:	Effectivity Date:	Page: 1 of 1
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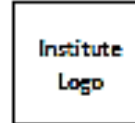
**Appendix 10**

Undergraduate Research Form No. 9

**CERTIFICATION AND RECOMMENDATION FORM**



Republic of the Philippines  
**MABALACAT CITY COLLEGE**  
Mabalacat City, Pampanga



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**CERTIFICATION AND RECOMMENDATION**  
**For Title/ Proposal/ Final Defense**

(Date) \_\_\_\_\_

**The Dean**  
Institute of \_\_\_\_\_  
This College

Madam/Sir,

The study entitled,

---

prepared and submitted by \_\_\_\_\_ in partial fulfillment of the requirements for the degree of \_\_\_\_\_ is recommended for defense in the [ ] title stage [ ] proposal stage [ ] final stage.

We look forward to your approval of our recommendation.

Sincerely yours,

\_\_\_\_\_  
Research Instructor's Name and Signature

**Noted by:**

\_\_\_\_\_  
Adviser's Name and Signature

**Requirements Completed:**

- a. Enrolment for the current semester
- b. Academic Records

\_\_\_\_\_  
College Registrar

**Approved:**

\_\_\_\_\_  
Name of the Dean

## Appendix 11

Undergraduate Research Form No. 10

### INVITATION TO THESIS COMMITTEE FORM



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### INVITATION TO THE PANEL OF EVALUATORS

(Date) \_\_\_\_\_

**Name of Faculty**  
Faculty, Institution  
This College

Ma'am/Sir,

I take pleasure in inviting you to sit as one of the members of the **PANEL OF EVALUATORS** of \_\_\_\_\_, a candidate for the degree of \_\_\_\_\_ who will be examined on his/her study/project entitled,

---

The defense is set for **(TITLE, PROPOSAL, FINAL) STAGE**  
\_\_\_\_\_ (date and time), \_\_\_\_\_ (venue).

We look forward to your presence on the said activity.

Sincerely yours,

\_\_\_\_\_  
Research Instructor's Name and Signature

**Noted by:**

\_\_\_\_\_  
Adviser's Name and Signature

## Appendix 12

Undergraduate Research Form No.11

### PROPOSAL REVISION NOTES



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### PROPOSAL REVISION NOTES FORM

Title: \_\_\_\_\_

Name of Researcher/s: \_\_\_\_\_

Program-year level-section: \_\_\_\_\_

Suggestions/Recommendations by the Panelists	Action Taken	Page No. Reflecting the Change Done

#### Corrected and Recommended for Data Gathering by:

Statistician: \_\_\_\_\_ Date: \_\_\_\_\_

Adviser: \_\_\_\_\_ Date: \_\_\_\_\_

Member: \_\_\_\_\_ Date: \_\_\_\_\_

Member: \_\_\_\_\_ Date: \_\_\_\_\_

Chair: \_\_\_\_\_ Date: \_\_\_\_\_





## Appendix 15

Undergraduate Research Form No.14

### REPORT OF FINAL STATUS EVALUATION



Republic of the Philippines  
MABALACAT CITY COLLEGE  
Mabalacat City, Pampanga

Institute  
Logo

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#### FINAL REPORT OF EVALUATION (Title, Proposal and Final Defense)

The Thesis Committee with undersigned chairman and members on this \_\_\_\_ day of \_\_\_\_\_  
(Month), \_\_\_\_\_, the oral presentation and defense of the paper by:

\_\_\_\_\_  
*Student Candidate*

\_\_\_\_\_  
*Degree*

Title: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

After a thorough deliberation the Committee finds that the candidate:

- Has the mastery of his/her work and has aptly defended the thesis
- Shown a knowledge of his/her work to a good extent in the defense of his/her thesis.
- Lacks the necessary knowledge in the defense of a thesis.

The Committee likewise finds that the thesis:

- Has met the standards and requirements set by the Research Office of the Mabalacat City College, Mabalacat City.
- Needs to be modified, comments and suggestions are herewith enclosed for the guidance of the candidate.

#### THESIS COMMITTEE

\_\_\_\_\_  
Chairman

Member: \_\_\_\_\_  
Member: \_\_\_\_\_

Member: \_\_\_\_\_  
Member: \_\_\_\_\_

Adviser: \_\_\_\_\_

Proof Reader: \_\_\_\_\_

Language: \_\_\_\_\_

Statistician: \_\_\_\_\_

**Appendix 16**

**RESEARCH PROPOSAL RUBRIC**

Research Title: \_\_\_\_\_  
 Students' Name/s: \_\_\_\_\_ Date: \_\_\_\_\_

Dimensions/Criteria/Indicators/Weight	Level of Performance				Rating	Weight
	4 Excellent	3 Very Satisfactory	2 Satisfactory	1 Poor		
<b>A. Timeliness (20%)</b> Date of submission of manuscript: <u>Date of Submission</u>	Submitted on or before the assigned date of submission	Submitted 1 to 3 days after the assigned date of submission	Submitted 4 to 5 days after the assigned date of submission	Submitted more than 5 days after the assigned date of submission		
<b>B. Content (80%)</b>						
<b>Introduction</b> <ul style="list-style-type: none"> <li>• Clear and analytical</li> <li>• Shows evidence of an intelligent grasp of the problem in the field of specialization</li> <li>• Systematically leads to the statement of the specific problems to be answered</li> <li>• Cites findings and recommendations of previous studies conducted that are related to the topics</li> <li>• State difference of the present paper to the previous studies Places the researchers' observations or reasons why they intend to investigate the topic</li> <li>• Conditions the readers on the direction of developing the paper</li> <li>• Specific terms, definitions or abbreviations are fully defining use</li> </ul>	<b>All entries in the scoring rubric are present</b>	<b>1 of the entries in the scoring rubric is NOT present</b>	<b>2-4 of the entries in the scoring rubric are NOT present</b>	<b>4-5 of the entries in the scoring rubrics are NOT present</b>		

<p>in the study.</p> <ul style="list-style-type: none"> <li>the specific problem is a clear and acceptable manner</li> <li>SOP should be arranged so that one logically leads to the next sufficient to warrant the need for an undergraduate thesis under the field of specialization to investigate and answer</li> </ul>						
<p><b>Methodology</b></p> <ul style="list-style-type: none"> <li>Identifies the accurate research design</li> <li>Identifies the research instruments</li> <li>Identifies the respondents/subjects of the study</li> <li>Identifies sampling procedure</li> <li>Identifies the statistical procedure or data treatment procedure</li> <li>List all the ethical considerations and how to control it.</li> </ul>	<p><b>All entries in the scoring rubric are present</b></p>	<p><b>1 of the entries in the scoring rubric is NOT present</b></p>	<p><b>2-3 of the entries in the scoring rubric are NOT present</b></p>	<p><b>4-5 of the entries in the scoring rubrics are NOT present</b></p>		
<p><b>Power point presentation</b></p> <ul style="list-style-type: none"> <li>Limited to 15 slides only</li> <li>Limited to 15 minutes per group presentation</li> <li>Free from over-used animation and effects</li> <li>Each slide contains ten lines or less</li> <li>The font size for the title or heading is 40 and for the content is 32</li> </ul>	<p><b>All entries in the scoring rubric are present</b></p>	<p><b>1 of the entries in the scoring rubric is NOT present</b></p>	<p><b>2-3of the entries in the scoring rubric are NOT present</b></p>	<p><b>4-5 of the entries in the scoring rubrics are NOT present</b></p>		

<p style="text-align: center;"><b>Presenter</b></p> <ul style="list-style-type: none"> <li>• Answers the questions in logical and empirical manner</li> <li>• Explains the proposal clearly and simply</li> <li>• Free from mannerism that tend to overpower the presentation</li> <li>• Free from grammatical lapses</li> </ul>	<p style="text-align: center;"><b>All entries in the scoring rubric are present</b></p>	<p style="text-align: center;"><b>1 of the entries in the scoring rubric is NOT present</b></p>	<p style="text-align: center;"><b>2-3 of the entries in the scoring rubric are NOT present</b></p>	<p style="text-align: center;"><b>4-5 of the entries in the scoring rubrics are NOT present</b></p>		
<b>Final Grade</b>						
<b>Equivalence of Weighted Ratings: 4 = 100%; 3.0 to 3.9 = 91 – 99%; 2.0 – 2.9 = 80 to 89%; 1 to 1.9 = 70 to 79%</b>						

**Appendix 17**  
**RESEARCH FINAL DEFENSE RUBRIC**

Research Title: \_\_\_\_\_  
Students' Names: \_\_\_\_\_ Date: \_\_\_\_\_

Dimensions/Criteria/Indicators/Weight	Level of Performance				Rating	Weight
	4 Excellent	3 Very Satisfactory	2 Satisfactory	1 Poor		
A. <b>Timeliness (20%)</b> Date of submission of manuscript: <u>Date of Submission</u>	Submitted <b>on or before</b> the assigned date of submission	Submitted <b>1 to 3 days</b> after the assigned date of submission	Submitted <b>4 to 5 days</b> after the assigned date of submission	Submitted <b>more than 5 days</b> after the assigned date of submission		
<b>B. Content (80%)</b>						
<b>Introduction</b> <ul style="list-style-type: none"> <li>• Clear and analytical</li> <li>• Shows evidence of an intelligent grasp of the problem in the field of specialization</li> <li>• Systematically leads to the statement of the specific problems to be answered</li> <li>• Cites findings and recommendations of previous studies conducted that are related to the topics</li> <li>• State difference of the present paper to the previous studies Places the researchers' observations or reasons why they intend to investigate the topic</li> <li>• Conditions the readers on the direction of developing the paper</li> <li>• Specific terms, definitions or abbreviations are fully defining use in the study.</li> <li>• the specific problem is a clear and acceptable manner</li> <li>• SOP should be arranged so that one logically leads to the next sufficient to warrant the need for an undergraduate thesis</li> </ul>	<b>All</b> entries in the scoring rubric are present	<b>1</b> of the entries in the scoring rubric is NOT present	<b>2-4</b> of the entries in the scoring rubric are NOT present	<b>4-5</b> of the entries in the scoring rubrics are NOT present		

<p>under the field of specialization to investigate and answer</p> <ul style="list-style-type: none"> <li>For quantitative researches conceptual and/or theoretical framework was analytically, logically and clearly discussing the variables of the study</li> </ul>						
<p><b>Methodology (Quantitative Research)</b></p> <ul style="list-style-type: none"> <li>Identifies the accurate research design/approach</li> <li>Identifies the research instruments</li> <li>Identifies the setting, total respondents/subjects and sampling procedure of the study</li> <li>Identifies the data gathering procedures</li> <li>Identifies the statistical procedure or data treatment procedure or analysis plan</li> <li>List all the ethical considerations and how to control it.</li> </ul>	<p>All entries in the scoring rubric are present</p>	<p>1 of the entries in the scoring rubric is NOT present</p>	<p>2-3 of the entries in the scoring rubric are NOT present</p>	<p>4-5 of the entries in the scoring rubrics are NOT present</p>		
<p><b>*Methodology (Qualitative Research)</b></p> <ul style="list-style-type: none"> <li>Identifies philosophical underpinning of the study</li> <li>Identifies the setting, total respondents/subjects and sampling procedure of the study</li> <li>Identifies the ways of gathering the narratives</li> <li>Identifies the process of reflective analysis</li> <li>List all the ethical considerations and how to control it.</li> </ul>	<p>All entries in the scoring rubric are present</p>	<p>1 of the entries in the scoring rubric is NOT present</p>	<p>2-3 of the entries in the scoring rubric are NOT present</p>	<p>4-5 of the entries in the scoring rubrics are NOT present</p>		

<p><b>*Results (Quantitative Research)</b></p> <ul style="list-style-type: none"> <li>• Discuss what the study found out</li> <li>• Shows the figures, graphs and tables</li> <li>• Shows the analysis of data</li> </ul> <p><b>*Results (Qualitative Research)</b></p> <ul style="list-style-type: none"> <li>• Discuss what the study found out</li> <li>• Shows responses of the participants</li> <li>• Shows the results/insights (Themes, Codes and etc.)</li> </ul>					
<p><b>*Discussion/Conclusion (Quantitative Research)</b></p> <ul style="list-style-type: none"> <li>• It should show the implications of answers and why does it matter</li> <li>• Shows the analysis with related literature</li> <li>• Shows the conclusion</li> <li>• Shows the recommendation</li> </ul> <p><b>*Discussion/Conclusion (Qualitative Research)</b></p> <ul style="list-style-type: none"> <li>• It should show the implications of answers and why does it matter</li> <li>• Shows the analysis with related literature</li> <li>• Shows creative synthesis</li> <li>• Shows implication and future direction</li> </ul>					

<p><b>Power point presentation</b></p> <ul style="list-style-type: none"> <li>• Limited to 15 slides only</li> <li>• Limited to 15 minutes per group presentation</li> <li>• Free from over-used animation and effects</li> <li>• Each slide contains ten lines or less</li> <li>• The font size for the title or heading is 40 and for the content is 32</li> </ul>	<p><b>All</b> entries in the scoring rubric are present</p>	<p><b>1</b> of the entries in the scoring rubric is <b>NOT</b> present</p>	<p><b>2-3</b> of the entries in the scoring rubric are <b>NOT</b> present</p>	<p><b>4-5</b> of the entries in the scoring rubrics are <b>NOT</b> present</p>		
<p><b>Presenter</b></p> <ul style="list-style-type: none"> <li>• Answers the questions in logical and empirical manner</li> <li>• Explains the proposal clearly and simply</li> <li>• Free from mannerism that tend to overpower the presentation</li> <li>• Free from grammatical lapses</li> </ul>	<p><b>All</b> entries in the scoring rubric are present</p>	<p><b>1</b> of the entries in the scoring rubric is <b>NOT</b> present</p>	<p><b>2-3</b> of the entries in the scoring rubric are <b>NOT</b> present</p>	<p><b>4-5</b> of the entries in the scoring rubrics are <b>NOT</b> present</p>		
<p><b>Final Grade</b></p>						
<p><b>Equivalence of Weighted Ratings: 4 = 100%; 3.0 to 3.9 = 91 – 99%; 2.0 – 2.9 = 80 to 89%; 1 to 1.9 = 70 to 79%</b></p>						

## Appendix 18

### Guidelines for Referencing and Citation using Chicago Format

<b>Books</b>	
<b>Book with a single author</b>	
<b>Notes</b>	1Terry Glavin, <i>A Death Feast in Dimlahamid</i> (Vancouver: New Star Books, 1990), 106.
<b>Bibliography</b>	Glavin, Terry. <i>A Death Feast in Dimlahamid</i> . Vancouver: New Star Books, 1990.
<b>Comments</b>	<p><b>Shortened notes:</b>  <i>If you have only one source by the author, provide the author's name and page number in subsequent notes to that same source.</i>            2Glavin, 108.  <i>If you have used more than one source by the author, provide the author's name, an abbreviated title, and the page number in subsequent notes.</i>            3Glavin, <i>Death Feast</i>, 108.  <i>Use <b>ibid.</b> for notes that refer to the same source as the note immediately preceding it (ibid. is an abbreviation for the Latin word ibidem, meaning "in the same place"). If the note refers to the same source but different page numbers, include the page numbers in the note.</i>            4Ibid.            5Ibid., 97.</p>
<b>Book with two or three authors (or editors)</b>	
<b>Notes</b>	6Carole Shammas, Marylynn Salmon, and Michel Dahlin, <i>Inheritance in America: From Colonial Times to the Present</i> (New Brunswick, NJ: Rutgers University Press, 1987), 97. <b>Short note:</b> 7Shammas, Salmon and Dahlin, <i>Inheritance in America</i> , 142.
<b>Bibliography</b>	Shammas, Carole, Marylynn Salmon, and Michel Dahlin. <i>Inheritance in America: From Colonial Times to the Present</i> . New Brunswick, NJ: Rutgers University Press, 1987.
<b>Comments</b>	<i>In the bibliography, the first author is listed last name first, and the second author is listed first name first.</i>
<b>Book with more than three authors (or editors)</b>	
<b>Notes</b>	8Alison Prentice et al., <i>Canadian Women: A History</i> (Toronto: Harcourt Brace Jovanovich, 1988), 121-23. <b>Short note:</b> 9Prentice et al., <i>Canadian Women</i> , 134.
<b>Bibliography</b>	Prentice, Alison, Paula Bourne, Gail Cuthbert Brandt, Beth Light, Wendy Mitchinson, and Naomi Black. <i>Canadian Women: A History</i> . Toronto: Harcourt Brace Jovanovich, 1988.
<b>Comments</b>	<i>In notes, only the name of the first author is given, followed by et al. (et al. is a Latin abbreviation meaning "and others"). In the bibliography, all the authors' names are listed.</i>
<b>E-book from a library database</b>	
<b>Notes</b>	10Menno Boldt, <i>Surviving as Indians: The Challenge of Self-Government</i> (Toronto: University of Toronto Press, 1993), <a href="http://site.ebrary.com/lib/okanagan/docDetail.action?docID=10200930">http://site.ebrary.com/lib/okanagan/docDetail.action?docID=10200930</a> , 23. 11M. R. D. Foot and I. C. B. Dear, eds., <i>Oxford Companion to World War</i>

	<i>II</i> (Oxford: Oxford University Press, 2001), 154. doi: 10.1093/acref/9780198604464.001.0001.
<b>Bibliography</b>	Boldt, Menno. <i>Surviving as Indians: The Challenge of Self-Government</i> . Toronto: University of Toronto Press, 1993. <a href="http://site.ebrary.com/lib/okanagan/docDetail.action?docID=10200930">http://site.ebrary.com/lib/okanagan/docDetail.action?docID=10200930</a> . Foot, M. R. D and I. C. B. Dear, eds. <i>Oxford Companion to World War II</i> . Oxford: Oxford University Press, 2001. doi:10.1093/acref/9780198604464.001.0001.
<b>Comments</b>	A DOI (Digital Object Identifier) is a unique string of numbers and letters permanently applied to the content of an article or E-book. E-books are cited exactly the same as a print book, with the addition of a DOI or URL at the end of the note or bibliography entry. If the library database provides a stable URL, provide that one.. If the work is paginated, include the page number in your footnote. If the work is unpaginated, provide a chapter number or section title.
<b>E-book freely available online</b>	
<b>Notes</b>	12Grey Owl, <i>The Men of the Last Frontier</i> (1932; Project Gutenberg, 2011), chap. 5, <a href="http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html">http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html</a> <b>Short note:</b> 13Grey Owl, <i>Men of the Last Frontier</i> , chap. 3.
<b>Bibliography</b>	Grey Owl. <i>The Men of the Last Frontier</i> . Reprint of the 1932 New York edition, Project Gutenberg, 2011. <a href="http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html">http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html</a>
<b>Comments</b>	<i>If the book is a reprint edition, include both the original publication date and the newer, electronic publication date, as well as the name of the online collection from which it was retrieved.</i> <i>If it is a contemporary book from Google Books or other online e-book collection, cite the book as you would a print book and include the URL at the end of the citation.</i>
<b>Edited Book / Edition other than the first</b>	
<b>Notes</b>	14Mona Gleason et al., eds., <i>Rethinking Canada: The Promise of Women's History</i> , 6th ed. (Don Mills, ON: Oxford University Press, 2011), 165-6. <b>Short note:</b> 15Gleason et al., <i>Rethinking Canada</i> , 210.
<b>Bibliography</b>	Gleason, Mona, Tamara Myers, and Adele Perry, eds. <i>Rethinking Canada: The Promise of Women's History</i> , 6th ed. Don Mills, ON: Oxford University Press, 2011.
<b>Comments</b>	<i>For lesser-known Canadian and American cities, or cities that might be confused with another city of the same name, include a two-letter state or province po</i>
<b>Chapter or article in an edited book</b>	
<b>Notes</b>	16Roger Sarty, "Canada and the Great Rapprochement 1902-1914," in <i>The North Atlantic Triangle in a Changing World: Anglo-American-Canadian Relations, 1902-1956</i> , ed. B.J.C. McKercher and Lawrence Aronson (Toronto: University of Toronto Press, 1996), 19. <b>Short note:</b> 17Sarty, "Canada and the Great Rapprochement, 1902-1914," 134-6.
<b>Bibliography</b>	Sarty, Roger. "Canada and the Great Rapprochement, 1902-1914." In <i>The North Atlantic Triangle in a Changing World: Anglo-American-Canadian Relations</i> ,

	1902-1956, edited by B.J.C. McKercher and Lawrence Aronson, 12-47. Toronto: University of Toronto Press, 1996.
<b>Comments</b>	<i>In the bibliography entry, include the page range of the chapter within the book.</i> <b>Page ranges:</b> for numbers less than 100, use all digits. For numbers higher than 100, use only the changed digits (e.g. 25-29; 109-11; 345-7; 228-34; 398-402)
<b>Institutional author / Online document from a website</b>	
<b>Notes</b>	18University of Chicago Press, <i>The Chicago Manual of Style</i> , 16th ed. (Chicago: University of Chicago Press, 2010), 65. 19Truth and Reconciliation Commission of Canada, <i>Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada</i> (Winnipeg, MB: Truth and Reconciliation Commission of Canada, 2015), 24. <a href="http://www.trc.ca">http://www.trc.ca</a> . <b>Short Note:</b> 20Truth and Reconciliation Commission, <i>Honouring the Truth</i> , 25.
<b>Bibliography</b>	University of Chicago Press. <i>The Chicago Manual of Style</i> . 16th ed. Chicago: University of Chicago Press, 2010. Truth and Reconciliation Commission of Canada. <i>Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada</i> . Winnipeg, MB: Truth and Reconciliation Commission of Canada, 2015. <a href="http://www.trc.ca">http://www.trc.ca</a> .
<b>Comments</b>	An institutional author may be an organization, association, corporation, committee, etc. Provide the organization as author in the bibliography even if the organization is also the publisher. Note that the online version is cited exactly the same as a print version, with the addition of a URL.
<b>Unknown Author</b>	
<b>Notes</b>	21 <i>The Lottery</i> (London: J. Watts, 1732), 18.
<b>Bibliography</b>	<i>The Lottery</i> . London: J. Watts, 1732.
<b>Book series with more than one volume</b>	
<b>Notes</b>	22Edward Hallett Carr, <i>The Bolshevik Revolution, 1917-1923</i> (Harmondsworth: Penguin, 1966), 3: 170-3.
<b>Bibliography</b>	<i>If you used only one volume in the series:</i> Carr, Edward Hallett. <i>The Bolshevik Revolution, 1917-1923</i> . Vol. 3. Harmondsworth: Penguin, 1966. <i>If you used more than one volume in the series:</i> Carr, Edward Hallett. <i>The Bolshevik Revolution, 1917-1923</i> . 3 vols. Harmondsworth: Penguin, 1966.
<b>Comments</b>	<i>If a single volume in a multivolume work has a separate title, include it after the volume number.</i>
<b>Book in a series</b>	
<b>Notes</b>	23Mariana Valverde, <i>The Age of Light, Soap, and Water: Moral Reform in English Canada, 1885-1925</i> , The Canadian Social History Series, ed. Gregory S. Kealey (Toronto: McClelland & Stewart, 1991), 53.
<b>Bibliography</b>	Valverde, Mariana. <i>The Age of Light, Soap, and Water: Moral Reform in English Canada, 1885-1925</i> . The Canadian Social History Series, edited by Gregory S. Kealey. Toronto: McClelland & Stewart, 1991.
<b>Book in translation</b>	

<b>Notes</b>	24Alexander Solzhenitsyn, <i>August 1914</i> , trans. Michael Glenny (Harmondsworth: Penguin, 1974), 110.
<b>Bibliography</b>	Solzhenitsyn, Alexander. <i>August 1914</i> . Translated by Michael Glenny. Harmondsworth: Penguin, 1974.
<b>Comments</b>	<i>The author's name appears first. The name(s) of the editor(s), compiler(s) or translator(s) appear after the title.</i> <i>In the bibliography, spell out the terms: 'edited by', 'translated by', or 'compiled by'. In notes, use the abbreviation "trans." "ed." or "comp."</i> <i>If more than one role is listed in addition to the author, list the names in the same order as on the title page of the original source.</i>
<b>Reprint edition</b>	
<b>Notes</b>	25Herbert Westerby, <i>History of Pianoforte Music</i> (1924; reprint, New York, Da Capo Press, 1971), 11. Citations are to the 1971 edition. 26Grey Owl. <i>The Men of the Last Frontier</i> . (1932; Project Gutenberg, 2011), chap. 5, <a href="http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html">http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html</a>
<b>Bibliography</b>	Westerby, Herbert. <i>History of Pianoforte Music</i> . 1924. Reprint, New York: Da Capo Press, 1971. Grey Owl. <i>The Men of the Last Frontier</i> . Reprint of the 1932 New York edition, Project Gutenberg, 2011. <a href="http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html">http://www.gutenberg.ca/ebooks/greyowl-menofthelastfrontier/greyowl-menofthelastfrontier-00-e.html</a>
<b>Articles</b>	
<b>Journal article in print</b>	
<b>Notes</b>	27Constance B. Backhouse, "Married Women's Property Law in Nineteenth-Century Canada," <i>Law and History Review</i> 6, no. 2 (Fall 1988): 233. <b>Short note:</b> 28Backhouse, "Married Women's Property Law," 244.
<b>Bibliography</b>	Backhouse, Constance B. "Married Women's Property Law in Nineteenth-Century Canada." <i>Law and History Review</i> 6, no. 2 (Fall 1988): 211-57.
<b>Comments</b>	<i>Journal citations should include the volume number as well as the issue number and month or season (if available). Put volume and issue numbers in arabic numerals. Seasons are capitalized and spelled out in full. Months may be abbreviated or spelled out in full.</i>
<b>Journal article from a library database – URLs</b>	
<b>Notes</b>	29James L. McClain, "Castle Towns and Daimyo Authority: Kanazawa in the Years 1583-1630," <i>Journal of Japanese Studies</i> 6, no. 2 (Summer 1980): 269, <a href="http://www.jstor.org.ezproxy.okanagan.bc.ca/stable/132323">http://www.jstor.org.ezproxy.okanagan.bc.ca/stable/132323</a> . 30Adele Perry, "From "the hot-bed of vice" to the "good and well-ordered Christian home": First Nations Housing and Reform in Nineteenth-Century British Columbia," <i>Ethnohistory</i> 50, no. 4 (2003): 587-610, Project Muse.
<b>Bibliography</b>	McClain, James L. "Castle Towns and Daimyo Authority: Kanazawa in the Years 1583-1630." <i>Journal of Japanese Studies</i> 6, no. 2 (Summer 1980): 267-99. <a href="http://www.jstor.org.ezproxy.okanagan.bc.ca/stable/132323">http://www.jstor.org.ezproxy.okanagan.bc.ca/stable/132323</a> . Perry, Adele. "From "the hot-bed of vice" to the "good and well-ordered Christian home": First Nations Housing and Reform in Nineteenth-Century British Columbia." <i>Ethnohistory</i> 50, no. 4 (2003): 587-610. Project Muse.
<b>Comments</b>	<i>When citing a URL from a library database, do not use the URL from the browser's address bar. Use a shortened, stable URL provided by the database (look for an icon or link called permalink, stable URL or persistent link).</i>

	<i>If no stable URL or DOI is available, then include the database name (as in the second example above).</i>
<b>Journal article from a library database – DOIs</b>	
<b>Notes</b>	31 Gary Warrick, "European Infectious Disease and Depopulation of the Wendat-Tionontate (Huron-Petun)," <i>World Archaeology</i> 35, no. 2 (2003): 272, doi:10.1080/0043824032000111416.
<b>Bibliography</b>	Warrick, Gary. "European Infectious Disease and Depopulation of the Wendat-Tionontate (Huron-Petun)." <i>World Archaeology</i> 35, no. 2 (2003): 258-275. doi:10.1080/0043824032000111416.
<b>Comments</b>	A DOI is always preferable to a URL in a citation. If no DOI is available, use a stable URL.
<b>Journal article freely available on the internet</b>	
<b>Notes</b>	32 Trudi Johnson, "Women and Inheritance in Nineteenth-Century Newfoundland," <i>Journal of the Canadian Historical Association</i> 13, no. 1 (2002): 5, <a href="http://id.erudit.org/iderudit/031151ar">http://id.erudit.org/iderudit/031151ar</a> .
<b>Bibliography</b>	Johnson, Trudi. "Women and Inheritance in Nineteenth-Century Newfoundland." <i>Journal of the Canadian Historical Association</i> 13, no. 1 (2002): 1-22. <a href="http://id.erudit.org/iderudit/031151ar">http://id.erudit.org/iderudit/031151ar</a> .
<b>Comments</b>	<i>Cite the paragraph number [e.g., par. 16] if no page numbers are provided in a full-text article.</i>
<b>Book review</b>	
<b>Notes</b>	33 Edward N. Lutwak, review of <i>The Cold War</i> , by John Lewis Gaddis, <i>Times Literary Supplement</i> , March 24, 2006, 5.
<b>Bibliography</b>	Lutwak, Edward N. Review of <i>The Cold War</i> , by John Lewis Gaddis. <i>Times Literary Supplement</i> , March 24, 2006, 5.
<b>Magazine article</b>	
<b>Notes</b>	34 Philip E. Tetlock and Dan Gardner, "Doctors without Science: A Brief History of Quackery, From Leeches to Ostrich Eggs," <i>The Walrus</i> , December 2015, <a href="http://thewalrus.ca/doctors-without-science/">http://thewalrus.ca/doctors-without-science/</a> . 35 Ken MacQueen and Michael Friscolanti, "Who gets to be Canadian?" <i>Maclean's</i> , October 19, 2015, 18.
<b>Bibliography</b>	Tetlock, Philip E. and Dan Gardner, "Doctors without Science: A Brief History of Quackery, From Leeches to Ostrich Eggs." <i>The Walrus</i> , December 2015. <a href="http://thewalrus.ca/doctors-without-science/">http://thewalrus.ca/doctors-without-science/</a> . MacQueen, Ken, and Michael Friscolanti. "Who gets to be Canadian?" <i>Maclean's</i> . October 19, 2015.
<b>Comments</b>	<i>Weekly and monthly magazines are usually cited by date only, even if they have volume and issue numbers. Cite the specific page in your note, but do not include the page range in the bibliography.</i>
<b>Newspaper article</b>	
<b>Notes</b>	36 "Bull and the Gun," <i>Edmonton Journal</i> , August 18, 1990, G1.
<b>Bibliography</b>	<i>Newspaper articles are not usually cited in bibliographies.</i>
<b>Online news source</b>	
<b>Notes</b>	37 "Vietnam-China row over South China Sea plane landing," BBC News, January 6, 2016, <a href="http://www.bbc.com/news/world-asia-35216579">http://www.bbc.com/news/world-asia-35216579</a> .
<b>Bibliography</b>	"Vietnam-China row over South China Sea plane landing," BBC News, January 6, 2016. <a href="http://www.bbc.com/news/world-asia-35216579">http://www.bbc.com/news/world-asia-35216579</a> .
<b>Reference Materials (Dictionaries and Encyclopedias)</b>	

<b>Printed reference works</b>	
<b>Notes</b>	38 <i>Dictionary of Canadian Biography</i> , vol. 2, s.v. “Laval, François de.” 39 <i>Oxford English Dictionary</i> , 2nd ed., s.v. “Charivari.”
<b>Bibliography</b>	<i>Reference works are not usually entered in the bibliography.</i>
<b>Comments</b>	<i>The abbreviation s.v. signifies the Latin sub verbo, meaning “under the word.”</i>
<b>Online reference works</b>	
<b>Notes</b>	40 <i>Oxford English Dictionary</i> , 2nd ed., s.v. “Charivari,” March 2012, <a href="http://www.oed.com/view/Entry/30734">http://www.oed.com/view/Entry/30734</a> . 41 <i>Dictionary of Canadian Biography</i> , vol. 12, s.v. “Davie, Theodore,” accessed April 25, 2012, <a href="http://www.biographi.ca/">http://www.biographi.ca/</a> .
<b>Bibliography</b>	Reference works are not usually entered in the bibliography.
<b>Comments</b>	An online reference work is cited the same way as a printed work, with the addition of the date of last revision, or the access date. If the entry cites a stable URL address, include it. Otherwise, use the URL for the homepage. The first example above includes the date of last revision and a stable URL. The second includes the date of access and the homepage of the online dictionary.
<b>Other</b>	
<b>Unpublished thesis or dissertation</b>	
<b>Notes</b>	42John S. Lutz, “Losing Steam: Structural Change in the Manufacturing Economy of British Columbia, 1860-1915” (master’s thesis, University of Victoria, 1988), 67.
<b>Bibliography</b>	Lutz, John S. “Losing Steam: Structural Change in the Manufacturing Economy of British Columbia, 1860-1915.” Master’s thesis, University of Victoria, 1988.
<b>Government document / Institutional author</b>	
<b>Notes</b>	43British Columbia, <i>Report of Royal Commission on Matters Relating to the Sect of Doukhobors in the Province of British Columbia, 1912</i> (Victoria: King’s Printer, 1913), T22. 44Parks Canada, <i>State of Canada’s Natural and Historic Places 2011</i> , Ottawa, 2011. <a href="http://www.pc.gc.ca/eng/docs/pc/rpts/elnhc-scnhp/2011/index.aspx">http://www.pc.gc.ca/eng/docs/pc/rpts/elnhc-scnhp/2011/index.aspx</a> .
<b>Bibliography</b>	British Columbia. <i>Report of Royal Commission on Matters Relating to the Sect of Doukhobors in the Province of British Columbia, 1912</i> . Victoria: King’s Printer, 1913. Parks Canada. <i>State of Canada’s Natural and Historic Places 2011</i> . Ottawa, 2011. <a href="http://www.pc.gc.ca/eng/docs/pc/rpts/elnhc-scnhp/2011/index.aspx">http://www.pc.gc.ca/eng/docs/pc/rpts/elnhc-scnhp/2011/index.aspx</a> .
<b>Sound recording – Online</b>	
<b>Notes</b>	49Franklin Delano Roosevelt, “First Inaugural Address,” March 4, 1933, transcript and Adobe Flash audio, 18:59, Miller Center of Public Affairs, University of Virginia, <a href="http://millercenter.org/president/speeches/detail/3280">http://millercenter.org/president/speeches/detail/3280</a> .
<b>Bibliography</b>	Roosevelt, Franklin Delano. “First Inaugural Address.” March 4, 1933. Transcript and Adobe Flash audio, 18:59. Miller Center of Public Affairs, University of Virginia. <a href="http://millercenter.org/president/speeches/detail/3280">http://millercenter.org/president/speeches/detail/3280</a> .
<b>Film</b>	
<b>Notes</b>	50“Looking for Louise,” <i>Thelma &amp; Louise</i> , dir. Ridley Scott (1991; Santa Monica, CA: MGM Home Entertainment, 2004), DVD.
<b>Bibliography</b>	<i>Thelma &amp; Louise</i> . Directed by Ridley Scott. 1991. Santa Monica, CA: MGM Home Entertainment, 2004. DVD.

<b>Comments</b>	<i>The note above refers to a specific scene or DVD chapter. Include this information if relevant. Include the year for both the original film and the DVD version. When citing online multimedia, include the same information for a film, but also add a URL and access date.</i>
<b>Web page -- no author</b>	
<b>Notes</b>	51“Our History, Our Health,” First Nations Health Authority, accessed December 20, 2015, <a href="http://www.fnha.ca/wellness/our-history-our-health">http://www.fnha.ca/wellness/our-history-our-health</a> .
<b>Bibliography</b>	“Our History, Our Health.” First Nations Health Authority. Accessed December 20, 2015. <a href="http://www.fnha.ca/wellness/our-history-our-health">http://www.fnha.ca/wellness/our-history-our-health</a> .
<b>Comments</b>	<i>Cite individual web pages rather than entire websites. Entries should include the following elements, where available: the title or a description of the web page, the author’s name, the owner or sponsor of the site, the URL, and the date. If there is no date, then include an access date.</i>
<b>Web page – with author</b>	
<b>Notes</b>	52Anthony S. Wohl, “Victorian Racism,” The Victorian Web, accessed January 20, 2016, <a href="http://www.victorianweb.org/history/race/rc5.html">http://www.victorianweb.org/history/race/rc5.html</a> .
<b>Bibliography</b>	Wohl, Anthony S. “Victorian Racism.” The Victorian Web. Accessed January 20, 2016, <a href="http://www.victorianweb.org/history/race/rc5.html">http://www.victorianweb.org/history/race/rc5.html</a> .
<b>Blogs</b>	
<b>Notes</b>	53K. Mandla, “The Elephant in the Room: A Coda,” <i>Motho ke mothoka botho</i> (blog), <a href="http://kmandla.wordpress.com">http://kmandla.wordpress.com</a> .
<b>Bibliography</b>	<i>Blog entries are not cited in the bibliography, unless you cite several entries from the blog.</i>
<b>Comments</b>	<i>For blogs, cite the author, the entry title, the blog title, and the URL. Add the word blog in parentheses following the blog title, unless the word blog appears in the title itself.</i>
<b>Document from a digital primary source collection</b>	
<b>Notes</b>	54Hilda Hay, <i>Hilda Hay to William Hay, December 10th 1943</i> , letter, from Canadian Letters and Images Project, accessed December 17, 2015, <a href="http://www.canadianletters.ca/content/document-8360">http://www.canadianletters.ca/content/document-8360</a> . 55W. P. Upham, <i>Map of Salem Village 1692</i> , map, from Salem Witch Trials: Documentary Archive and Transcription Project, accessed December 21, 2015, <a href="http://salem.lib.virginia.edu/maps/index.html">http://salem.lib.virginia.edu/maps/index.html</a> .
<b>Bibliography</b>	Hay, Hilda. <i>Hilda Hay to William Hay, December 10th 1943</i> . Letter. From Canadian Letters and Images Project. Accessed December 17, 2015. <a href="http://www.canadianletters.ca/content/document-8360">http://www.canadianletters.ca/content/document-8360</a> . Upham, W. P. <i>Map of Salem Village 1692</i> . Map. From Salem Witch Trials: Documentary Archive and Transcription Project. Accessed December 21, 2015. <a href="http://salem.lib.virginia.edu/maps/index.html">http://salem.lib.virginia.edu/maps/index.html</a> .

## Appendix 19

### Guidelines for Referencing and Citation using APA 6<sup>th</sup> Edition

The following are a direct excerpt from  
APA 6th Referencing Style Guide. 2020. <https://aut.ac.nz.libguides.com/APA6th/referencelist>

#### One author (a book chapter)

Easton, B. (2008). Does poverty affect health? In K. Dew & A. Matheson (Eds.), *Understanding health inequalities in Aotearoa New Zealand* (pp. 97–106). Dunedin, New Zealand: Otago University Press.

#### One author, multiple works published in the same year

Rush, E., McLennan, S., Obolonkin, V., Cooper, R., & Hamlin, M. (2015a). Beyond the randomised controlled trial and BMI--evaluation of effectiveness of through-school nutrition and physical activity programmes. *Public Health Nutrition*, *18*(9), 1578–1581. <https://doi.org/10.1017/S1368980014003322>

Rush, E. C., Obolonkin, V., Battin, M., Woules, T., & Rowan, J. (2015b). Body composition in offspring of New Zealand women: Ethnic and gender differences at age 1–3 years in 2005–2009. *Annals Of Human Biology*, *42*(5), 492–497.

#### Two authors (a journal article with doi)

Li, S., & Seale, C. (2007). Learning to do qualitative data analysis: An observational study of doctoral work. *Qualitative Health Research*, *17*(10), 1442–1452. <https://doi.org/10.1177/1049732307306924>

#### Three authors

Barnard, R., de Luca, R., & Li, J. (2015). First-year undergraduate students' perceptions of lecturer and peer feedback: A New Zealand action research project. *Studies In Higher Education*, *40*(5), 933–944. <https://doi.org/10.1080/03075079.2014.881343>

- Use "&" before the final author.

#### Four to seven authors

Szczęśna, A., Nowak, A., Grabiec, P., Paszkuta, M., Tajstra, M., & Wojciechowska, M. (2017). Survey of wearable multi-modal vital parameters measurement systems. *Advances in Intelligent Systems and Computing*, *526*. [https://doi.org/10.1007/978-3-319-47154-9\\_37](https://doi.org/10.1007/978-3-319-47154-9_37)

- List all authors in the reference entry

## More than seven authors

Kasabov, N., Scott, N. M., Tu, E., Marks, S., Sengupta, N., Capecchi, E., . . . Yang, J. (2016). Evolving spatio-temporal data machines based on the NeuCube neuromorphic framework: Design methodology and selected applications. *Neural Networks*, 78, 1-14. <https://doi.org/10.1016/j.neunet.2015.09.011>

- First 6 authors ... last author and follow by date and other information.

## Secondary Citations

A secondary citation is where you are citing information or quotes the author of your reference has taken from source that you have not read.

### In-text citation:

Seidenberg and McClelland's study, conducted in 1990 (as cited in Coltheart, Curtis, Atkins, & Haller, 1993), shows that ...

... as some studies show (Seidenberg & McClelland, as cited in Coltheart, Curtis, Atkins, & Haller, 1993).

- Name the author of the original work in your text, cite the secondary source in in-text citation: (as cited in ..., 1993)

### Reference list entry:

Coltheart, M., Curtis, B. Atkins, P., & Haller, M. (1993). Models of reading aloud: Dual-route and parallel-distributed-processing approaches. *Psychological Review*, 100, 589–608.

- Give the secondary source in the reference list.

## DOI and URL

### DOI

DOI = digital object identifier

- A DOI commonly identifies a journal article but it can also be found on other publication types including books.
- All DOIs start with 10, and includes numbers and letters. Example:  
doi:10.1016/j.addbeh.2009.08.001
- The DOI provides a permanent internet address for the item making it easy to locate.
- You may search by DOI numbers in [Library Search](#) to locate articles.

DOI in your reference list entry:

- **Always** use the DOI if available (for print or online articles and books).
- **No** full stop at the end of a DOI.

Example:

Oppenheimer, D., Zaromb, F., Pomerantz, J. R., Williams, J. C., & Park, Y. S. (2017). Improvement of writing skills during college: A multi-year cross-sectional and longitudinal study of undergraduate writing performance. *Assessing Writing*, 32, 12–27. <https://doi.org/10.1016/j.asw.2016.11.001>

Articles retrieved from library databases may include **ezproxy.aut.ac.nz** in the DOIs. This ezproxy information should be removed.

For example:

<https://doi-org.ezproxy.aut.ac.nz/10.1093/pubmed/fdv045>

The correct URL for this DOI is:

<https://doi.org/10.1093/pubmed/fdv045>

## URL

If there is no DOI for a online journal article or an e-book, include a URL in your reference.

### Use the URL of a journal home page for journal articles without DOI

- Use the URL of the journal homepage, NOT the full URL of the article, in your reference.

### Finding a journal home page URL:

- You could do a Google search for the journal title (within double quotation marks), e.g. "new zealand management magazine" to find the journal's homepage
- Or, go to the Library database [Ulrichsweb](#), search by the journal title or the journal's ISSN to find the journal record. On the journal record page, find the journal URL for your reference.

### Journals without a home page and no DOI:

This can happen to some discontinued journals, or journals archived in an archival database only.

- Use the **database home page** URL in your reference. See the example in the following section.

### Use a URL of a library database:

#### Resources retrieved from a library database, without a DOI:

If you use electronic resources without DOI, such as an ebook or a data set or a journal without a website, from a library database, You are required to include the URL of the *database homepage* in your reference.

- Do not use the full URL of the source that you retrieved from a database.

**Example:**

An ebook "*Small town sustainability: economic, social, and environmental innovation*".

The URL on the ebook page is:

<https://ebookcentral-proquest-com.ezproxy.aut.ac.nz/lib/AUT/detail.action?docID=1121624>

- You should remove ezproxy and other details following it.
- The correct URL in the reference for this book should be <http://ebookcentral.proquest.com>

## Appendix 20

### Guidelines for Referencing and Citation using IEEE Documentation Style

The following are a direct excerpt from How to Cite References: IEEE Documentation Style  
<https://iee-dataport.org/sites/default/files/analysis/27/IEEE%20Citation%20Guidelines.pdf>

IEEE citation style is used primarily for electronics, engineering, telecommunications, computer science, and information technology reports. The three main parts of a reference are as follows:

- Author's name listed as first initial of first name, then full last.
- Title of article, patent, conference paper, etc., in quotation marks.
- Title of journal or book in italics.

This system allows the reader to identify the information source at a glance. All punctuation, dates, and page numbers depend on the type of reference cited, so follow the examples with care. Please note this style guide is wide ranging, but not all sources are identified. Further research may be required.

#### Citation Within The Text

The first step of the reference citation process is within the report itself. Each citation must be noted within the text through use of simple sequential numbers. A number enclosed in square brackets, placed in the text of the report, indicates the specific reference. Citations are numbered in the order in which they appear. Once a source has been cited, the same number is used in all subsequent references in the report. No distinction is made between electronic and print sources, except in the citation referenced details.

**Each reference number should be enclosed in square brackets on the same line as the text, before any punctuation, with a space before the bracket.**

#### Examples

“. . .end of the line for my research [13].” “The theory

was first put forward in 1987 [1].” “Scholtz [2] has

argued.....”

“For example, see [7].”

“Several recent studies [3, 4, 15, 22] have suggested that.....”

Note: Authors and dates do not have to be written out after the first reference; use the bracketed number. Also, it is not necessary to write “in reference [2].” Just write “in[2].”

The preferred method to cite more than one source at a time is to list each reference in its own brackets, then separate with a comma or dash:

[1], [3], [5]

[1] – [5]

#### Reference Lists

To finish citing sources, a numbered list of references must be provided at the end of the paper. The list

is comprised of the sequential enumerated citations, with details, beginning with [1], and is not alphabetical.

### Page Format

- Place references flush left
- Single-space entries, double-space between.
- Place number of entry at left margin, enclose in brackets.
- Indent text of entries.

The following examples demonstrate the format for a variety of electronic and print sources. These citations are ones in widest use. Not everything is listed.

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**Note: Titles of unpublished works are not italicized or capitalized. Capitalize only the first word.**

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