A PRACTICAL GUIDE

for the *BSU GRADUATE SCHOOL*

FORM AND STYLE for THESES & DISSERTATIONS

(an instructional material for Graduate Seminar and Methods of Research)

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FOREWORD

The BSU Graduate School prescribes a standard form and style for theses and dissertations. These are described in the 2000 edition of the Form and Style for Graduate Students, formulated by a BSU Committee when the Graduate School (GS) was then headed by Dean Dr. Dominador S. Garin.

This instructional material was developed for the subject 'Graduate Seminar' where the 'mechanics' of BSU theses and dissertations are considered. It can also be used for the subject 'Methods of Research' when proposal writing is included. Moreover, it can be utilized by GS students in adhering to the prescribed form and style, which had changed slightly due to various actions of the BSU University Academic Council, the GS Academic Council, and the GS Executive Committee.

This Guide was based primarily on:

> BSU (Benguet State University) Committee, 2000. Form and Style for Graduate Students of the Benguet State University, BSU, La Trinidad, Benguet.

Other references are:

> Gray, D. 2004. Doing research in the real world. London: Sage Publications;
>
> Graziano, A. and M. Raulin, 2007. Research methods: A process of inquiry. 6th edition, Boston: Pearson Education, Inc.;

Jackson, S. 2006. Research methods and statistics: A critical thinking approach, 2nd edition. USA: Thomson Higher Education; and,

UB R&D (University of Baguio Research and Development Center) n.d. Thesis Format for Graduate and Undergraduate Programs, 3rd edition, UB, Baguio City.

The author obtained his PhD Science Education degree (by research) from the University of New England (Australia), his MA Physics degree from UP Diliman, and his BS Physics for Teachers degree (cum laude) from the Philippine Normal College (Manila). He teaches Physics, Earth Science, Environmental Education, Computer Education, Strategies and Methods of Teaching, Graduate Seminar and Methods of Research. His research is focused on physics and science education.

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CHAPTERS OF A BSU THESIS OR DISSERTATION

NOTE: 1. The preliminary (e.g., Title Page,…) and finale (e.g., Literature Cited,…) portions are the same for both non-technical and technical works.
   2. The subdivisions listed per chapter are the *required* subdivisions.

NON-TECHNICAL:

INTRODUCTION
   Background of the Study
   Conceptual Framework
   Statement of the Problem
   Hypotheses of the Study [if any]

METHODOLOGY
   Research Design
   Population and Locale of the Study
   Data Collection Procedure
   Data Collection Instruments
   Treatment of Data

RESULTS AND DISCUSSION
   [Presentation, analysis, and interpretation of data per stated problem]

   Summary [only of findings, not of the entire research]

CONCLUSIONS AND RECOMMENDATIONS
   Conclusions
   Recommendations

TECHNICAL:

INTRODUCTION
  Background of the Study
  Objectives of the Study
  Importance of the Study
  Place and Time of the Study

REVIEW OF LITERATURE
  [The related literature are arranged according to the sequence of the objectives]

MATERIALS AND METHODS
  Materials
  Methods
  Treatment of Data

RESULTS AND DISCUSSION
  [Presentation, analysis, and interpretation of data per stated problem]

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
  Summary
  Conclusions
  Recommendations

GENERAL CONSIDERATIONS

Paper

Paper size should be Letter: 8 ½ by 11 inches. Do not use A4 or long bond paper. Paper should be substance 20 or equivalent. Reproduction of manuscripts through photocopying is allowed with the use of 'powder', not ink.

Margins

For all pages, from the Title Page to the Biographical Sketch, use 1.7 inches for the left margin, 1.5 inches top, 1.3 inches right, and 1.3 inches bottom. The text in the body of the manuscript is justified (or aligned both left and right).

Font and Font Size

For all text including chapter titles, you can use 12 pt. Times New Roman, Times or Arial. Tables and figures can have different font/ font sizes (usually smaller).

Spelling and Grammar

Use American English. If a word can be spelled correctly in more than one way, select one and be consistent in its use. Rules of grammar shall be followed. Avoid paragraphs that are composed of only one sentence.

Tense

Use the past tense in the Abstract, in describing methods, and in presenting the summary (of findings or of the study). Use either the past or present tense in the 'Results and Discussion'. For the introductory part, the conclusions and recommendations use the appropriate tenses.

Spacing

Use double spacing between lines, if not otherwise specified. Two lines that are double spaced have a blank single space line between them.

After a period, comma, question mark or exclamation point, leave one or two character spaces (be consistent in using either). However, do not put a space *after* an open parenthesis or *before* a close parenthesis. For example, write "(Author, 2010)" instead of "(Author, 2010)". Also, do not put a space/s *before* a comma or a period, as done in this sentence you are now reading.

For lengthy direct quotations that are in the form of a paragraph, use single spacing. Indent the whole paragraph around ½ inches on both sides; do not set of the paragraph using quotation marks.

OTHER CONSIDERATIONS

Abstract

The abstract is a summary of the study, containing a brief introduction, methods, results and conclusions. It should be written simply and in paragraph form. It should not be more than three pages. It may contain the recommendations of the study.

Acknowledgments

Use the third person in writing the Acknowledgments. Example: "The author would like to thank the following: …" not "I would like…" Put dedications, if any, in this section, because there is no separate section for DEDICATION.

Background of the Study

This is a short overview of the study, perhaps covering only three to five pages. It should give the reader a sense of: a) why the research is being conducted, and b) possible contributions of the research to existing knowledge. In short, it provides the justification for conducting the study. When writing the 'Background', you can, first, provide the context or situation of the problem (preferably as an 'inverted pyramid', from the international down to the local level). At this portion, sources can be cited to support important ideas. Next, discuss the justification, motivation, or reasons of selecting the topic for research.

For non-technical researches, discuss the importance or significance (theoretical or practical) of the study at the last portion.

Conceptual Framework

The conceptual framework presents the basic arrangement of the study by showing the inter-relationships among the variables. If there are theories or models that underpin the study, they are presented in this section.

The first part can start with the theories or models. This is then followed by a simple enumeration of the a) independent variables, b) the dependent variable, c) intervening or moderating variables, if any, and d) other components of the research. You can also use the input-process-output model when enumerating the variables or main concepts.

Then present a figure or diagram ("paradigm of the study") showing the inter-relationships.

Next, discuss each of the concepts or variables in the 'paradigm' in relation to existing literature (very much like a 'review of literature'), with an emphasis on findings and methods.

If there is no separate section for 'Definition of Terms', define here the terms that are used in the study, as they occur in the discussion. It is advisable to show a clear hierarchy, or organization, of topics in the Conceptual Framework by using headings and sub-headings.

Note that the paradigm is shown **after** the variables or concepts are enumerated, but **before** the discussion of the concepts or variables.

However, you can show the paradigm at the last portion of the Framework, if your discussion is not long. It is just that, sometimes, the reader can 'get lost' in a long discussion and can get confused on how the concepts being discussed are related to the research topic. Thus, we recommend that the figure will be shown before the discussion, to serve as a guide.

Review of Literature

The literature review establishes a link between the present study and existing literature (studies, reports, books, and other sources). This review can be embedded in the topic 'Conceptual Framework' for non-technical re-

searches or it can stand as a separate chapter entitled "Review of Literature" for technical researches.

In terms of presentation, the review should be based on the variables or main concepts of the study. That is, the review can be broken down into topics that relate directly to the variables. Literature that is common can be put together so that they need not be cited individually, although, the researcher can write the review in a preferred way. Nevertheless, the underlying idea for the review is to show how the present study is similar with past studies (existing literature), how it will be different, and what research gaps (or lack of research) are being addressed.

If you want to use some review of literature from another research (such as a thesis or dissertation), do not simply copy and 'paste' it on your review. Recognize that the review is the intellectual product (and property) of the person who put it together. Thus, you need to cite your source.

For example, you wish to include the idea of the following sentence (perhaps found in the 2009 work of Gaccam) in your thesis or dissertation, to support one of your ideas:

> Gifford and Halpole (2006), Hart and Cottle (2003), and Alters (2005) all report that students who had high grades in high school English and had taken environmental education in college performed well in Earth Science in college.

Do NOT simply 'copy and paste' this sentence (yes, even if it is only one sentence!). Instead, you can write it in your work as:

> This is supported by the assertion of Gaccam (2009), citing the works of Gifford and Halpole (2006), Hart and Cottle (2003), and Alters (2005), that students who had high grades in high school English and had taken environmental education in college performed well in Earth Science in college.

Then, you will not be committing plagiarism (the act of claiming the work of another as one's own work) because you are giving credit to your sources. Taken the other way, you would not want somebody to copy what you have painstakingly put together as your own review of literature, and not giving you credit for doing it by NOT citing your work as the source.

Do not use wrong grammar, such as, "According to Author (2010), he said that a paragraph should contain more than one sentence." Perhaps you can modify this to become: "According to Author (2010), a paragraph should contain…"

Indicate literature cited as follows: Aczel (2010) or (Aczel, 2010); for two authors, Ballantyne and Packer (2008) or (Ballantyne & Packer, 2008); for more than three authors, Reyes *et al*. (2007) or (Reyes *et al*., 2007).

For citations involving two or more sources, arrange chronologically, most recent first., e.g., (Bautista & Pinos-an 2009; Cruz, 2008; Reyes, *et al*., 2007). Note that *et al.* is in italics.

Statement of the Problem

State the specific problems in interrogative form. Try to make them parallel to objectives that are SMART (or Specific, Measurable, Achievable, Result-oriented, and Time-bound).

Hypotheses of the Study

The plural of 'hypothesis' is 'hypotheses'. The trend now, at least for non-technical researches, is to write a hypothesis as an alternative, instead of a null hypothesis. For example, use "There is a significant difference between…", instead of "There is no significant difference between…". The reason is in the question: "Why study something when, in fact, you have already assumed that you will see no difference at all?"

Methodology

It is advisable to provide justification of your choice of research design, instrument, analysis or treatment of data, among other things. If using an in-

strument that you have developed, include a description of how you developed it and what sources you have built upon. Make it clear that you have introduced enhancements and that you are not simply repeating what has been used or done before.

Before undertaking research involving people, it is necessary to take ethics into account. Specifically, you have to explain to the respondents or participants the following (Gray 2004):

aims of the study, who will undertake it, who will participate, what kind of information is being sought, how much of the participant's time is required, the participation is voluntary, who will have access to the data once they are collected, and how anonymity of respondents will be preserved.

If the participants give their consent after you have provided this information (verbally or in the form of a cover letter for your questionnaire), then you have obtained their *informed consent*.

There are also ethical issues in researches involving animals and plants. Consider all these.

Results and Discussion

Do the presentation according to the sequence of your specific problems.

For each, present first the results or findings. Then relate (is there affirmation or contradiction?) these to previous studies, if any. State whether they tend to confirm or reject your hypotheses. Provide possible explanations. Cite implications. Give your own insights, based on your experience and expertise.

In discussing results that are shown by tables or figures, do not repeat what are already shown. Perhaps consider first the general trend shown by your results. Then provide possible explanations for the results, cite implications, give insights, and so on.

For non-technical researches, end this chapter with a *summary of the results*. This is in contrast with the summary (in the chapter Summary, Con-

clusions and Recommendations) for technical researches which also includes a summary of the problems, materials, and methods.

Conclusions

Your conclusions are generalizations that you can glean from your results. Write them as inferences; do not repeat your findings.

Recommendations

Make your recommendations specific. They should arise from your results. You can offer the conduct of specific actions or of further research.

Appendices

The appendices (plural of 'appendix') contain materials that could enhance the veracity and quality of your thesis or dissertation. Examples of these materials are letters of transmittal, copies of survey questionnaires or interview schedules, numerical computations, or raw data.

Literature Cited

Arrange alphabetically, by author. Do not categorize into books, articles, internet sources, etc. List only literature that is cited in the text. Make the citations complete, consistent and accurate.

Include all literature that you have cited, even the 'secondary' sources, such as those that appear, for example, in "According to Caccam (2009), citing the works of Author1 (2007) and Author2 (2008), …" Therefore, you need to put an entry for Caccam as well as for Author1 and for Author2.

For other sources that do not fit the 'pattern', include all the data necessary to locate easily these sources. If no publication date is available for a document, state n.d. in its place.

Biographical Sketch

Use the third person in writing the Biographical Sketch. For example, write "The author underwent…", not "I underwent…". Include schools and dates attended and degrees and honors conferred.

The Proposal

The thesis or dissertation proposal includes everything from the Title Page to the Methodology, except Abstract and Acknowledgments. It should also include the Literature Cited and part of the appendices (e.g., copies of your proposed data collection instruments). It is written in future tense.

Roles of the Student, Adviser, Advisory Committee
and the Graduate School

The 2000 BSU Form and Style for Graduate Students of the Benguet State University states the following roles:

The **student** pays the appropriate fees to the Graduate School; schedules proposal and final defenses; masters and adopts the GS style and form; checks accuracy of measurements, citations, and other parts of the manuscript; acknowledges the sources of materials used in the research; and, selects the statistician and editor of the manuscript.

The **Adviser** facilitates the completion of the research and manuscript, guides the researcher in all aspects related to the research, helps in the presentation of the research to the panel, follows up progress of the research in all phases, checks and reviews the accurateness and interpretation of measurement and the reliability and validity of instruments and interpretation of the data, recommends presentation and publication of manuscript, acts as chair of the advisory and defense committee, implements the mechanics spelled out in the GS style and form, ensures that no part of the manuscript is plagiarized, recommends a statistician who will help in the statistical data analysis and interpretation and an editor who will help in editing the manuscript, and con-

firms and affixes signatures on approved manuscripts. The Adviser is equally responsible as the student on the submission of books within the prescribed period. The Adviser serves as the moderator during the public presentation of your work.

The **Advisory Committee** endorses the Plan of Coursework of the student and any deviations from this plan. It acts also as the examining committee during the qualifying examination (for doctorate only), comprehensive examination, thesis/ dissertation proposal defense and final (oral) defense. Aside from assisting in your Plan of Course work, they countercheck the accuracy and interpretation of data in your thesis/dissertation, assist the adviser in all phases of the research process, ask critical questions in response to the manner and system of conducting the research, make suggestions for the improvement of the research and manuscript, assist the adviser in ensuring that no part of the manuscript is plagiarized, confirm and affix signatures on the manuscript.

The **Graduate School** (GS) approves, facilitates, and coordinates scheduling of defense; reviews the mechanics of the manuscript; implements provisions on the selection of advisory and defense chair and members; monitors remuneration of adviser and members; and, confirms selected adviser and members. The GS Dean confirms and affixes signatures on the manuscript.

<u>Annual Best Dissertation/ Thesis Awards</u>

Every year,the Graduate School gives awards for best dissertation or thesis in four categories: Best Dissertation, Social; Best Dissertation, Technical; Best Thesis, Social; and, Best Thesis, Technical. The criteria are:

60% *Quality of research* (novelty of idea and/or framework; comprehensiveness; appropriateness of statistical treatment; soundness and depth of interpretation of findings; relevance of conclusions and recommendations; and, evidence of personal work)

30% *Organization of the research* (coherence and consistency; unity of structure and logic of presentation; and, clarity of expression and propriety of emphasis)

10%   *Mechanics of the text* (use of acceptable format; general appearance, including typing, spelling, grammar and syntax; and, presentation of bibliography, appendices, etc.)

The awards are conferred during the Achievement and Recognition Program on the year following the search. Thus, the 2010 Best Thesis/Dissertation Awards (selected from dissertations and theses completed during the period January 1, 2010 to December 31, 2010) were given during the 2011 BSU Achievement and Recognition Program.

Nominations are called around the last week of November, through the Deans and Directors. In addition to a certificate of recognition, there are financial incentives of Three Thousand Pesos (Php 3000.00) for Best Dissertation and Two Thousand Pesos (Php 2000.00) for Best Thesis.

SOME TIPS

Hierarchy of Topics

A topic can be divided into sub-topics, which can be sub-divided further. For example, the topic 'Graduate Seminar', possibly under the chapter "RESULTS AND DISCUSSION" has divisions that are also shown by the hypothetical Table of Contents entries following:

When you present these topics in your thesis or dissertation, show the divisions (thus, the **hierarchy, organization or levels of your topics**) by using the headings and subheadings. ***For example***, the hierarchy shown in the preceding table can appear in your thesis or dissertation, as follows:

Graduate Seminar

A major division of a chapter is delineated by a CENTER HEADING. The center heading is in title case, underlined, not boldface, not italicized. It has no end punctuation. If it is has two or more lines, it is single spaced, and formed as an inverted pyramid.

Written Presentations

Delineate the sub-divisions within a 'center heading' by SIDE HEADINGS. The side heading is flush to the left margin. It is in

title case, underlined/ underscored, not boldface, not italicized. It has no end punctuation. If it is has two or more lines, it is single spaced, with the second line still flush to the left.

Sections. Delineate further divisions within a 'side heading' by PARAGRAPH HEADINGS. Only the first letter of the first word is capitalized (except proper nouns). The heading ends with a period.A sentence immediately follows.

i. *Introductory portion*. If there are smaller divisions within the 'paragraph heading', then you can do this type of heading, which is in italics, not underlined and only the first letter of the first word is capitalized.

ii. *Final portion*. If there are smaller divisions within the 'paragraph heading', then you can do this type of heading.

BSU-GS style. Delineate further divisions within a 'side heading' by PARAGRAPH HEADINGS. This heading is indented.

i. *Tense*. If there are smaller divisions within the 'paragraph heading', then you can do this type of heading.

ii. *Style*. If there are smaller divisions within the 'paragraph heading', then you can do this type of heading.

Oral Presentations

Delineate the sub-divisions within a 'center heading' by SIDE HEADINGS.

<u>Pointers for oral presentations.</u> Delineate further divisions within a 'side heading' by PARAGRAPH HEADINGS. A sentence immediately follows.

<u>Critiques of some presentations.</u> Delineate further divisions within a 'side heading' by PARAGRAPH HEADINGS. A sentence immediately follows.

<div align="center">

<u>How to Insert Two Blank Space Lines Above</u>
<u>and/or Below a Center Heading</u>

</div>

I. For the TITLES of chapters and major sections (e.g., ABSTRACT, TABLE OF CONTENTS, ..., BIOGRAPHICAL SKETCH) → these are **flush** to the top margin and has **two blank single space lines** *below* them:

A. One way:
   1. Type the title. Remember to use full capitals. Center the title on the page.
   2. Put your cursor at the END of the title.
   3. Do "Format → Paragraph → Indents and Spacing → Line spacing (make sure that you have 0 pt for the spacing Before and After) → Multiple at 3 → OK" .
   4. Press "Enter" once.
   5. Start typing. However, since this line is now also triple spaced, either double space (shortcut: press Ctrl and 2 at the same time, or Ctrl-2) or single space (shortcut: Ctrl-1), depending on what you need.

B. Another way:
   1. Type the title. Remember to use full capitals. Center the title on the page.
   2. Put your cursor at the END of the title.

3. Do "Format → Paragraph → Indents and Spacing → Line spacing (make sure that you have 0 pt for the spacing Before and After) → Single → OK" . (Shortcut: Ctrl-1)
4. Press "Enter" three times.
5. Start typing. However, this line is now also single spaced. If you need to double space, press Ctrl-2.

II. For the CENTER HEADINGS (these have **two blank single space lines** *above*, and **two blank single** *spaces* below)

Recommended way, assuming that you are starting from the normal double-spacing of the text:
1. At the end of the preceding paragraph, press "Enter" once.
2. Type the title of the center heading. Remember to underline (Ctrl-u) and to center this heading.
3. Put your cursor at the **START** of the heading.
4. Do "Format → Paragraph → Indents and Spacing → Line spacing (make sure that you have 0 pt for the spacing Before and After) → Single → OK" . (Shortcut: Ctrl-1)
5. Press "Enter". (This will 'carry' your heading one single space line downward.)
6. Put your cursor at the **END** of the heading.
7. Press "Enter" three times.
8. Start typing. However, this line is now also single spaced. Press Ctrl-2 to regain double spacing.

<u>How to Insert Two Blank Space Lines Above</u>
<u>a Side Heading</u>

1. At the end of the preceding (double spaced) paragraph, press "Enter" once.
2. Type the title of the side heading. Remember to put it flush to the left margin.
3. Put your cursor at the START of the title.
4. Do "Format → Paragraph → Indents and Spacing → Line spacing (make sure that you have 0 pt for the spacing Before and After) → Single → OK" . (Shortcut: Ctrl-1)
5. Press "Enter" once.
6. Put your cursor at the END of the title.
7. Press Ctrl-2.
8. Press "Enter" once.
9. Start typing. Remember to indent this line.
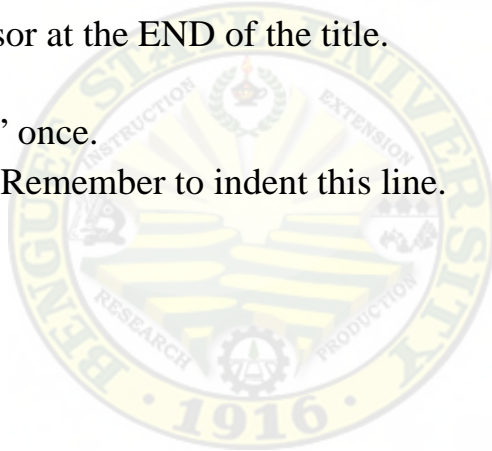
How to Format the TABLE OF CONTENTS, LIST OF TABLES, and other LISTS

When making your TABLE OF CONTENTS, LIST OF TABLES, and the other LISTS, you can use *three-column tables* as shown **below**. Then, it will be easy to align-left, align-center, or align-right.

For example, the word 'Page' and the page numbers can be aligned-right easily. Moreover, to double space, you can first single space all the lines, and just press 'Enter' at the end of the page number.

When you PRINT, remember to **HIDE** the table gridlines.

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Be Consistent

If you are not sure about what form and/ or style to use, just be consistent in using one form. For example, use consistently either "j" or "J" to represent Joule, or "kcal" or "C" to represent kilocalorie. Anyway, it will be easy to replace one with the other later, if you need to. For instance, if you are using Word, you can use 'Ctrl-h' to "find and replace" j with J, or kcal with C.