HOW TO PREPARE A SUCCESSFUL RESEARCH REPORT

(A Dissertation Guideline for Year IV Students - Faculty of Geomatics)

STYLE

Syntax

In all section of the paper, **Present Tense** should be used to report background that is already established. Use **Future Tense** for work that you will do. Always use **Past Tense** to describe results of a specific experiment, especially your own. Do not use personal pronouns (I, we, you, they, our, etc.) in your dissertation writing. It is better not to use THIS, THAT, THESE, THOSE etc. (demonstrative pronouns) also in the report writing.

Examples:

My research purpose is ………..incorrect
The research purpose is………..correct

This table shows………..incorrect
The table 3.1 shows………correct

Type Face

The standard font size is **12** and use "**Times New Roman**" font style. Use **justify** when you set the font alignment.

Page Numbering

Do not put a number on the title page (but consider this as the page i). Use Roman numbers for Declaration, Acknowledgement, Contents, List of Tables, List of Figures, Acronyms and Abstract pages and show Roman numbers in bottom part of the page in center (Refer sample format).

Start page numbering (Arabic) with the first chapter, Introduction. Put page numbers on top of the pages in right side.

Citations

Works cited in the text should be indicated as follows:

(Pathirana, 2005) or (Gombrich and Obyesekara, 1990) i.e. author(s), year of publication: page number(s). Use 'et al' when citing a work by more than two authors, but include all the authors under References.

To distinguish citations of different works of the same author published in the same year, use letters, i.e. (Perera, 2005a, 2005b).

(*from SUSL Journal*)

Different styles of writing references.

Example A:

It has been found, that sodium selenite administrated at appropriate doses increases the life span of experimental animals given toxic doses of both cadmium and mercury (Nordberg, 1978)

Example B:

Nordberg (1978) found, that sodium selenite administered at appropriate doses increases the life span of experimental animals given toxic doses of both cadmium and mercury.

Captioning

Captioning is a method of separating the body of a report into section. Headings show organization and identify the topic for a section or a block of information. Capital letters, underlining, numbering, font size and position on the page help to differentiate rank or level.

 (Refer sample format)

TITLE PAGE

Title Page is very important. **Write an attractive title which remains your whole work.** Your title should be specific in describing the experiment you performed. Your **name/s, index number/s, university logo, name of the degree, faculty and university name, year and title of the dissertation should be on the Title Page**.
 (Refer Title Page in sample format)

DECLARATION

Declaration is a decree that formally denies legal claim and renounce some or all liability. Most commonly, a Declaration is used as a legal caveat, which serves to protect the author of the declaration.
(Refer the 'Declaration' include in sample format)

ABSTRACT

The Abstract is a **summary of the study**. It includes,
- a statement of the aim or objective of the research
- a short description of the method used
- the main result
- conclusion

The Abstract normally be a single paragraph **between 200 and 300 words** and it is written in **Past Tense**. Each word and sentence include in your Abstract needs to be meaningful. And all the information contained in the **Abstract must be discussed in the main body of the research**. The Abstract page comes beginning part of the dissertation but you have to **write your Abstract after your whole research work**

ACKNOWLEDGEMENTS

Acknowledgements give you an opportunity to show your gratitude for the people who stood by your side in your dissertation writing task. In Dissertation Acknowledgements, you thank all the people who provided their assistance to you in form of advice, suggestions and any other. Therefore, you may include the names of the dean, supervisors, lecturers, friends etc.

Try to limit the Acknowledgements within one page and you can use any of the following phrases or any other suitable:

- I/We am/are grateful……….
- I/We owe my/our deepest gratitude to………
- I/We would like to thank……..
- It is an honor for me to ………….
- This dissertation would not have been possible unless…………etc.

(Refer Acknowledgements page in sample format)

Note: You can use personal pronouns in the Acknowledgements page.

CONTENT PAGES

Content Pages of a research report show the page numbers of different sections and subsections of the report. Write **major topics in capital letters with bold**. When you are sectioning your topics, write **sub topics in capital letters without bolding**. If you want to **section the sub topics you can use simple letters but first letters of the words in capital.** Example: 2.1.1 Application of GIS for Disaster Management

(Refer sample format)

LIST OF TABLES AND LIST OF FIGURES

You have to list out the Tables and Figures those you use in your dissertation. In here you should **show the titles and numbers which you gave for the tables and figures with the page numbers.** The lists of order come, the order of showing tables and figures on your dissertation. Use separate pages for List of Tables and List of Figures.

(Refer 'Results' section of the guideline and sample format)

LIST OF APPENDIX/ APPENDICES

The sections of Appendices that used in end of the dissertation must be listed here.
(Refer 'Appendices' section for more information).

LIST OF ACRONYMS

Acronym is a word formed from initial letter of a multi- word.   Listed acronyms in order you use the terms in the report.

Example: 3D-Three Dimension
(Refer sample format)

INTRODUCTION

 This is the first chapter of your research. In the Introduction, you need to let the readers and markers of your report know **why the report is important and what exactly the report is about.** Keep the Introduction brief and always state the objectives. The

Introduction comes at the beginning of the dissertation; it is not the first section you should write. It is easier to write after you dealt with your methods and result section.

In your introduction, you need answer questions such as;

- What do you hope to learn from research?
- What question is being asked?
- Why is the research important?

LITERATURE REVIEW

Literature Review is the second chapter in your dissertation. In here you should set up a theoretical frame work. In Literature Review, **give clear understanding of the key concepts related to your topic and you have to develop the research**.

Therefore, you should include;

- **What has been done in your field of research?**
- What principle of selection are you going to use?
- How are you going to order your discussion?
- How do the various studies relate to each other?
- **What precise contributions do the researchers make the field**? What are their limitations? What are their strengths and weaknesses?
- **How does your own research fit into what has already been done?**

Note: Do not try to list all the material published, but evaluate them according to the concept of your research. In here, Past, Present and Future tenses can use accordingly. When you evaluate past work of other researchers you have to use past tense. When you relate the things with your objectives it can use both present and future tenses as relevant.

METHODOLOGY

You must **document all methods performed in your study**. Do not report methods word-for-word from any of the written sources you used. You need to summarize in your own words, what you did. Do not report any results of the research in the Method section.

Note: When you write the Method section in the dissertation, it is better to use Passive Voice sentences.

RESULTS

This chapter **presents and describes your results but not explain**. Your aim in Results section is to make your results as comprehensible as possible for readers and markers.

Raw data (unprocessed data) are not included your dissertation. **Analyze your data and present them in the form of figures, tables and/or descriptions of observations.** Data in this form are called **Processed Data.**

Give your results continuity and describe the relationship of each section of converted data to the overall study.

Complete the tables and figures with titles. The title should explain what the table or figure is showing. When you put **a title to a table it should be comes top of the table**. But when it is come to **figure, title** should **write below the figure**. (Refer sample format)

Note: All processed data go into the body of the report, after the methods and before the discussion. Place raw data at the end of the report as an appendix, if needed. In the section you can use both present and past tenses.

In the chapter of Discussion, you have to **explain the results of your study.** Examine whether and how the question raised in the Introduction section have been answered and show how your results relate to the literature. **Qualify and explore the theoretical importance/ significance of your results and outline any new research question or areas for future research that your results have suggested.**

Note: For the chapter of Discussion use both the Past tense and Present tense.

REFERENCE LIST

Reference List is a **list of all the references material you consulted during your research** for the dissertation. It is **listed in alphabetical order** at the ending part of the report.

The referencing style of JGS:

Text: All citations in the text should refer to:

1. Single author: the author's name (without initials, unless there is ambiguity) and the year of publication;

2. Two authors: both authors' names and the year of publication;

3. Three or more authors: first author's name followed by "et al." and the year of publication. Citations may be made directly (or parenthetically). Groups of references should be listed first alphabetically, then chronologically. For notes containing more than one citation, references should be separated by a semi-colon.

Examples: "as demonstrated (Allan, 1996a, 1996b, 1999; Allan and Jones, 1995). Kramer et al. (2000) have recently shown ...."

List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.

Examples:

Reference to a journal publication:

Where the article doesn't have an issue number

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2000. The art of writing a scientific article. Journal of Science Communication. 163, 51-59.

Where the article has an issue number

Bornmann, L., Daniel, H. D., 2008. Selecting manuscripts for a high-impact journal through peer review: A citation analysis of communications that were accepted by Angewandte Chemie International Edition, or rejected but published elsewhere. Journal of the American Society for Information Science and Technology. 59(11), 1841-1852.

Reference to a book:

Strunk Jr., W., White, E.B., 1979. The Elements of Style, third ed. Macmillan, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 1999. How to prepare an electronic version of your article, in: Jones, B.S., Smith , R.Z. (Eds.), Introduction to the Electronic Age. E-Publishing Inc., New York, pp. 281-304.

Proceedings of Symposia

Shi, Y., Eberhart, R., 1998. A modified particle swarm optimizer. In: Proceedings of IEEE International Conference on Evolutionary Computation. Institute of Electrical and Electronics Engineers, Piscataway, New Jersey.

Internet resources

Author (2020). Title of website, database or other resources, Publisher name and location (if indicated), number of pages (if known). Available from: http://xxx.xxx.xxx/ (Date of access).

APPENDIX OR APPENDICES

Information that is not essential to explain your findings, but supports your analysis should be placed in an Appendix. The information could be include an Appendix about figures, tables, charts, graphs of results, transcripts of interviews, statistics, questionnaires, pictures, maps, specification or data sheets, computer programme information etc. which are cannot mentioned in the chapters. There is no limit to what can be placed in the Appendix providing it is relevant and reference is made to it in the report.

Each separate Appendix should be lettered Appendix A, Appendix B, Appendix B 1, etc. It is listed in order that you use the things in the report