

A guide to senior research project writing

Chapter I. Common Rules

1. Margins and Fonts

Margins of 3.0 cm (1.5 inches) on the left (for binding) and 2.5 cm (1.0 inch) on the right, top and bottom are required. While an UPPER CASE 12 points font is recommended for the first order (major titles), all the rest including the text, sub-headings and captions of tables and figures must be written in 12 points font of “times New roman” style.

2. Starting on New Pages

Each component of the Preliminaries, each of the five first order titles (chapters) of the Text and the Reference and Appendix parts of the project report must start on a new page

Each of the titles of the preliminaries and the major titles (chapters) of the text as well as the titles: References and Appendix must be written in upper case letters and centered. Chapter headings of the text are numbered with Arabic numerals starting from 1 for the Introduction and ending with 7 in the Appendices (if any) or with 6 in the reference.

The second order titles (sub-headings) are numbered consecutively with fractions of the Arabic numeral of their respective chapters (e.g. 1.1., 1.2., or 2.1., 2.2., etc) and must be written in bold title case letters (that is, only the first letter of all major words of the heading written in upper case letters), flushed left and should not run with text. However, all the third and higher order sub-division headings are numbered consecutively with fractions of the Arabic numeral of their respective sub-headings (e.g. 1.1.1., 1.1.2., or 2.1.1., 2.1.2., etc) and written in *italic* lower case letter (except the first letter of the first word and proper nouns), flushed left margin.

3. Spacing and Indentation

The spacing between the lines in text is 1.5 and between paragraphs are always two line spaces that is one more free line of 1.5 spacing in addition to the automatically applied 1.5 line spacing. A free line space is required both between the paragraphs above and below the sub-headings and division headings in the text. A free line spacing of 1.5 is also required between a table and its caption as well as between a figure and a figure caption.

Page Numbering

Although not every page has a page number typed on it, every page (perhaps except the Title Page) is assigned a page number. The use of two different series of page numbering is recommended. In the first series Roman numerals (i, ii, iii, etc.) are used for all the pages starting from the beginning of the “cover page” and ending at the last page preceding the “Introduction”. In the second series, Arabic numerals (1,2,3, etc.) are used from the first page

of the “Introduction” and continues up to the end of the “ appendix section. Scientific names in any part of the research project are written in *Italic Font*, the genus name starting with capital (upper case) whereas the species name in small (lower case) letters. Similarly, none English Language terminologies (words, nouns, pronouns etc.) shall be italicized.

Chapter II. Senior research project report writing

Three major divisions’ viz., “the **Preliminaries**, the **Text** and the **Reference plus Appendix**

1. Structure and Contents of the Preliminaries

1.1. Title page

It includes the title of the study, the type of the degree for which the work is conducted, the full name of the candidate, and the month-year and university the degree is to be granted. It may also contain logo(s) of the institution in which the student has studied. It should also be noted that the length of the title itself should not be too long. The senior research project title should be selected carefully and must be brief, concise but descriptive and comprehensive enough to include all key words and phrases that explain the contents of the study.

CHARACTERIZATION OF COMMON HORSE FEEDS AND FEEDING SYSTEMS IN SELECTED AREAS OF ETHIOPIA

Senior Research Project



By

Eyerus Muleta

Addis Ababa University, College of Veterinary Medicine and Agriculture, Department of Animal Production Studies

June, 2013

Bishoftu, Ethiopia

1.2. Cover page

The “cover page” is the second page of a senior research project but the first page for which a page number (i) is assigned. It includes the title of the senior research project; the designation of the faculty and college/school and the university to which the senior research project is submitted; the degree for which the manuscript is presented; the full name of the candidate; and the month/year and place (university) the degree is to be granted.

CHARACTERIZATION OF COMMON HORSE FEEDS AND FEEDING SYSTEMS IN SELECTED AREAS OF ETHIOPIA

logo

A Senior Research Project

Submitted to the College of Veterinary Medicine and Agriculture of Addis Ababa
University in partial fulfillment of the requirements for the degree of Bachelor of
Science in Animal Science

By

Eyerus Muleta

June, 2013

Bishoftu, Ethiopia

1.3. Approval and signature (page) sheet

<p>Addis Ababa University</p> <p>College of Veterinary Medicine and Agriculture</p> <p>Department of -----</p> <hr/>		
<p>Title: (Write title of senior research project here)</p>		
<p>Submitted by: _____</p>		
Name of Student	Signature	Date
<p><i>Approved for submittal to senior research project assessment committee</i></p>		
1. _____	_____	_____
Major Advisor	Signature	Date
2. _____	_____	_____
Co- Advisor (can be > 1)	Signature	Date
3. _____	_____	_____
Department chairperson	Signature	Date

1.4. Acknowledgements

“Acknowledgements” recognize the persons and/or institutions the candidate is indebted to for guidance, assistance received and those to whom he/she remains thankful for a special aid or support. Good taste calls for acknowledgements to be expressed simply and tactfully. The “Acknowledgments” is preferably written in a third person English form.

1.5. Table of contents

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2.1. Xxxx	4
2.2. Xxxx	
3. MATERIALS AND METHODS	6
NB: A “table of contents” exceeding a page shall continue on next pages by re-writing the title on the top-center on each additional “table of contents” page as:	
TABLE OF CONTENTS (Continued)	

1.6. List of abbreviations (if any)

As a rule, the use of author coined and uncommon abbreviations or acronyms shall be avoided or at least minimized. For author coined abbreviations, the first letters of key words written in upper case letters must be used. The abbreviations are then listed in alphabetical order.

LIST OF ABBREVIATIONS

AAU	Addis Ababa University
CSA	Central Statistical Authority
EPA	Environmental Protection Authority
EARO	Ethiopian Agricultural Research Organization
EPO	Eosinophil peroxidase
WFP	World Food Program

NB: A “List of abbreviations” exceeding a page continues on next pages by re-writing the title on the top-center on each additional page as:

LIST OF ABBREVIATIONS (*Continued*)

1.7. List of tables in the appendix (if any)

Table	Page
1. Prevalence of clinical and subclinical mastitis in local and cross breed cows	29

NB: A “list of tables” exceeding a page may continue on next pages by writing the title:
”List of tables (continued)” on the top-center on each additional page as:

1.8. List of figures/illustrations (if any)

- Follow similar fashion with list of tables.

1.9. List of appendix (if any)

In a senior research project containing tables in the appendix, the “list of tables in the appendix” is typed on a new page, following the “list of figures”. Each table in the appendix section of the manuscript is numbered consecutively with Arabic numerals starting from “Appendix Table 1” for the table, which appeared first in the appendix section, and has a caption which is short and descriptive and that appears on the top of each Appendix Table.

1. Appendix I: Sample Questionnaire

1. -----

a) -----

b) -----

2. -----

a) -----

b) -----

c) -----

d) -----

3. -----

a) -----

b) -----

c) -----

(Continue with other categories of Appendix if any)

1.10. Abstract

The “abstract” is the last component of the preliminaries of project writing. It generally consists of short statements on the problem, objectives, methodology followed by condensed summary of major findings with relevant data to support the results and the conclusions to be drawn. Written in 12 points font, italicized with line spacing of 1.5. No citations of previous study, reference to Tables and/or figures in the text are made in this section. Provision of less important data and author coined abbreviations must be avoided. Abstract must not be paragraphed.

The title “ABSTRACT” written in bold capital letters and centered appears next to the research project title. A free extra line space is left both below and above this title. The example below shows the format of “abstract” page which starts on a new page.

Example of “Abstract” Page

<p style="text-align: center;">ASSESSMENT OF PREVALENCE AND HOST- RELATED RISK FACTORS OF CAMEL TRYPANOSOMOSIS IN SELECTED DISTRICTS OF AFAR PASTORAL AREA, NORTH EAST ETHIOPIA</p> <p style="text-align: center;">By</p> <p style="text-align: center;">Andualem Yimer: DVM, College of Veterinary Medicine and Agriculture</p> <p style="text-align: center;">ADVISORS: YYYY, MSc, College of Veterinary Medicine and Agriculture ZZZZ, PhD, Aklilu Lema-Institute of Pathobiology</p> <p style="text-align: center;">ABSTRACT</p> <p style="text-align: center;">Then follows the content (text) of the “Abstract” here....</p>
--

2. Structure and Contents of the Text of the project

The project being with the very first page of Chapter 1 that follows the preliminaries detailed above. In both cases, the text is readily divided into six main chapters: (1) the introductory chapter, (2) the literature review chapter; (3) the chapter that deals with the conditions under which the experiment will be conducted, including materials, methods and procedures used; (4) the results; (5) discussion; and (6) the summary chapter (conclusion and Recommendation) which should contain executive summary of the findings of the study and the conclusions and recommendations that might be drawn based on the findings of the study.

Each chapter of the text may further be divided into sub-chapters/sub-headings, divisions and sub-divisions.

2.1. Introduction

The “introduction” is the first of the six main chapters discussed under the text of a project. This chapter is usually brief giving only the most relevant and pertinent background information about the research project under consideration. This chapter, among others, provides:

- Background information on the subject (Supported with brief review of literature) and clear and complete statement of the problem investigated,
- Validation/justification of the problem or underlying hypothesis for undertaking the study, which, by a discussion of discriminatingly selected reasons, established the significance of the problem, and
- The general and major but specific objectives of the investigation written clearly and precisely.

Additional points to be considered in preparing the introduction section are:

- The chapter must start on a new page, the chapter heading must be numbered and all letters are written in bold upper case letters as: **1. INTRODUCTION**,
- The Introduction must not be divided into sub chapters and divisions. Rather, all the contents of the section must be presented in a logical order and well organized as to maintain a good flow and sequence of presentation ideas under the heading itself, and
- The entire section must be as brief as possible, usually less than 1000 words

2.2. Literature review

The “literature review” is the second chapter of the senior research project. This section of the text provides a resume of the history and the present status of the problem by means of a brief critical review of the findings of previous and most recent investigations of the research problem in question as well as of problems very closely related to it. Each one of the literature review items presented in this regard should be made clear together with the fact that the investigation now in progress arises from the fallacies or inadequacies of earlier studies.

Additional points to be observed during the preparation of the “literature review” section:

- The chapter heading, starting on a new page, must be numbered (with “2”) and all letters be written in bold capital letters as: **2. LITERATURE REVIEW**,
- The chapter may be divided into as many sub-chapter and divisions and sub-divisions depending of the nature of the study.

2.3. Materials and methods

The “materials and methods” section is the third chapter of the text of the project. This section provided a statement of the sources of data and the methods and procedures of data collection and analysis. A brief and concise description of the conditions under which the investigation was carried out and the materials, procedures, techniques, treatments, experimental design/techniques and the treatments and inputs used should be given under this heading.

Additional points to be observed during the preparation of the “Materials and Methods” section of a project are:

- The chapter heading, numbered (with “3”) and all letters written in bold upper case letters as: **3. MATERIALS AND METHODS** shall start on a new page,
- The chapter could be divided into as many sub-chapters/sub-headings and divisions and sub-divisions depending on the nature of the study, and
- The section is expected to be as much as possible detail and comprehensive. Sufficient information must be provided to allow the reader to repeat the experiment/study in an identical manner
- It should be written in past tense in an impersonal style (ex. Rather than saying I collected the samples from three sites, say the data were collected from three sites).

2.4. Results

The “results” section is the fourth chapter of the text of the project. This section of the text presents the results and analyses. It is impossible to give specific directions for organizing the findings of all studies, because of the wide variety of topics investigated, techniques employed and kind and volume of data and information collected. It is thus suffice to say that the contents of this chapter are the core matter of the entire study of the project as these are the student’s contribution to knowledge.

All other portions of the manuscript are subordinate to what actually has been discovered and it is only here that the findings of the present study are being disclosed. The student should, therefore, take great pains to present clearly his major findings and assess the significance of the results.

- A table or Figure must normally be placed on the same page where it is cited in the text for the first time.
- The contents of Tables and Figures presenting the results should be very clear to be independently comprehensible without reference to text.
- Lengthy Tables should be avoided by dividing information into two or more separate Tables.

Additional points to be observed during the preparation of the “Results” section of a project are:

- The chapter heading numbered with “4” and all letters written in bold capital letters as: **4. RESULTS** must start on a new page,
- The chapter could be divided into as many sub-chapters/sub-headings and divisions and sub-divisions depending on the nature of the study. In fact as much as possible sequences of the sub-heading need to follow the sub-headings and division/sub-division headings of the “literature review” section,
- The section is expected to be as much as possible detail and comprehensive to orient the reader about the results obtained from the study and the practical significance of the findings,
- Repetitions of numerical values, as for example presenting the same data both in Table and in Figures should be avoided, similarly, do not repeat data presented in the text description in tables or figures
- However, when data are presented in form of Figures in the text, the data used to create each Figure in the text must be shown in the Appendix(ces)
- Numerical values must be always followed by unit of measurement,
- One should not begin a sentence with numeral, instead provide another word or spell out the number and the unit of measurement that follows,
- When a word intervenes between the numeral and its unit, the unit has to be spelled out, e.g. 10 consecutive days,
- Following words start with capital letter followed by Arabic numerals like Table 6, Figure 7, Experiment 3, Group 6, Lot 9, and Treatment 2, and
- There is no space between numerals and %. However, one space is to be given between numerals and unit of measurements.

2.5. Discussion

The “discussion” section is the 5th chapter of the text of the project. This section of the text discusses the findings of the investigation. The contents of this chapter are the second core matter of the entire study of the project as these are the student’s contribution to knowledge. The student should, therefore, discuss the possible practical implications with reference to the problems indicated and the objectives stated in the “introduction” section’ Citations that the author feels that they would strengthen the results as well as those contradicting the present findings are also quoted in this section. However, attempts have to be made to give appropriate explanation for obtaining contradictory findings with the findings of previous studies.

In discussing the results, simple, short, direct, rational and declarative sentences should be used. Chain effect of sentences within the paragraph and continuity of logical order between

the paragraphs is important. Using past tense when referring to the project and reverting to present for discussing existing knowledge or prevailing concepts for conclusion is a better way writing. All the facts stated and quoted from the other sources must be referred and acknowledged. Plagiarism is illegal and unethical.

Additional points to be observed during the preparation of the “Discussions” section of a thesis or a dissertation are:

- The chapter heading numbered with “5” and all letters written in bold capital letters as: **5. DISCUSSION** must start on a new page,
- The chapter could be divided into as many sub-chapters/sub-headings and divisions and sub-divisions depending on the nature of the study. In fact as much as possible sequences of the sub-heading need to follow the sub-headings and division/sub-division headings of the “result” section,
- The section is expected to be as much as possible detail and comprehensive to orient the reader about the practical significance of the findings

2.6. Conclusion and recommendation

The “conclusion and recommendation” section is the sixth and the last chapter of the texts of the project. As this chapter is independent entity, it should provide a very brief narration of important objectives, material and methods, and the major findings of the study. It is therefore meant to restate the developments of previous chapters and presents succinctly the more important findings of the investigation; draw conclusions and perhaps give recommendations on development or policy implications based on the results obtained only from his/her study. The author may also list unanswered questions that he/she has encountered with but which require research beyond the limits of the undertaking report. In general, this section is brief and abridged but prepared carefully in a way to reflect the important contents of the manuscript.

Additional points to be observed during the preparation of the “conclusion and recommendation” section of a thesis/dissertation are:

- The chapter may be divided into two sub-chapters as: 6.1. Conclusions, 6.2. Recommendation if necessary but not more than these.

3. References and Appendices

3.1. References

The “references” is a separate section of the project manuscript that follows the body of text of the project. As the “references” is an integral part of the format of the manuscript, it is paged continuously with the text in Arabic numerals. The “references” section presents a complete list of the journal articles, books, periodicals, reports and other reference materials cited in the text. Reference should be selected based on relevance, and as much as possible,

recent references should be cited and the majority of these need to be articles published in journals. Much dependence on text and reference books, newsletters, annual and progress reports and other unpublished materials, as references are not acceptable.

All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of author's names and dates are exactly the same in the text as in the reference

- References are listed alphabetically by the first authors' last names
- In cases where articles of the same author are cited, reference are listed chronologically, *e.g.* Getachew Tilahun, 1997, then follows Getachew Tilahun, 1998 and Getachew Tilahun, 1999 both in the "Text and the "References" section.
- In cases where more than one articles of the same author published in the same year are cited, small letters, a,b,c *etc.* are assigned to each article and identified using these letters, *e.g.* Girma Zewude, 1998a, Girma Zewude, 1998b and Girma Zewude, 1998c both in the "Text and the "References" section,
- In referring journal articles, the list includes the **names of author(s)**, **year of publication**, the **title of the journal article** referred as it appears in the journal, the **name of the journal** (with standard abbreviation), the **volume** and the pages where in the journal the article occurs in this order,
- Ethiopian names should be given according to their national usage (the first name of the author (his/her real name) is written first followed by his/her father's name) in the text sections (*e.g.*, Dinka Ayana et al., 2007, Tesfaye Sisay) but treated just like non-Ethiopian names in the reference list (*e.g.*, Ayana D., Sisay T.), or as they were written in the journal or other reference used in case either only the first or the second name are given and it appears difficult to identify the last from the first name
- In the text, citation is listed in chronological order, *e.g.* (Yohannes, 1972; Dorchie and Cabaret, 1975; Solomon, 1978; Mesfin and Ketema, 1989; Anderson *et al.*, 1995; Seifu, 1998; Abraham, 2000)
- In the text, the first author followed by "et al." makes citation of an article co-authored by more than two authors and then the year the article was published. *E.g.* Getachew *et al.* (2007) or (Getachew *et al.*, 2007)
- In The "References" section, however, the use of "*et al.*" is not allowed. Rather, the last names and initials of all co-authors of an article are carefully and correctly entered. *e.g.* Abrol I.P., Dahiya I.S. and Bhumbra D.R. (1975). Title of the article. *Journal name*, **volume**: page range
- Journal names should be italicized and volume number must be in bold
- As much as possible, citation of unpublished and other sources of materials not readily available in the library must be avoided or at least kept to be minimum.
- As a rule, cross-reference is not allowed, and if it is to be used due to unavoidable reasons, it may not be more than two to three citations in a manuscript

- In the case of publications in any language other than English, the original title is to be retained. However, the titles of publications in non-Latin alphabets should be transliterated, and a notation such as "(in Russian)" or "(in Greek, with English abstract)" should be added.
- Web references may be given. As a minimum, the full URL is necessary. Any further information, such as Author names, dates, reference to a source publication and so on, should also be given.
- Articles available online but without volume and page numbers may be referred to by means of their Digital Object identifier (DOI) code.

Use the following system for arranging your references:

Journal Articles

Authors	Citation in the text	Reference list style
Single	Dorchies (1978), (Dorchies, 1978)	Dorchies Ph. (1978). Prevalence of Oestrus ovis in apparently healthy sheep in southern France. <i>Vet. Parasitol.</i> , 27:54-59.
Two	Goff and Horst (1997), (Goff and Horst 1997)	Goff J. P. and. Horst R. L. (1997): Physiological changes at parturition and their relationship to metabolic disorders. <i>J. Dairy Sci.</i> , 80:1260-1268.
>2 authors	Caroline <i>et al.</i> (2004) (Caroline <i>et al.</i> , 2004)	Caroline G., Ste´phane H., Paul K. and Geoffrey L. (200): Poxvirus genomes: a phylogenetic analysis. <i>J. General Virol.</i> , 85: 105–117.
Ethiopian name	Ayana <i>et al.</i> (2007) (Ayana <i>et al.</i> , 2007)	Ayana D., Ashenafi H. and Regassa F. (2007): Effect of <i>Toxoplasma gondi</i> infection on fertility of sheep under zero grazing. <i>Eth. Vet. J.</i> 14 : 7-14.
Organization	OIE (2006) (OIE, 2006)	OIE (2006). Bovine tuberculosis. OIE manual for diagnostic techniques of livestock diseases. Office International des Epizooties (OIE), Paris, France. pp. 287-296.

Accepted article

Jobre Y., Malone J. B., McCarroll J. C., Erko B., Mukaratirwa S. and Xinyu Z. (2013). Satellite climatology and the environmental risk of *Schistosoma mansoni* in Ethiopia and east Africa. *Acta Trop.*, (In press)

Articles available online but not yet published

Datiko J., Terefe G. & Bekele J. (2012). Anthelmintic utilization practices and prevalence of gastrointestinal helminth infections in sheep kept in the urban and peri-urban areas of Bishoftu Town. *Tropical Animal Health and Production*, DOI 10.1007/s11250-012-0270-6

Text and Reference Books

Thrusfield M. (2005): Veterinary Epidemiology. 3rd Ed, Blackwell science Ltd, UK, Pp. 233-250.

Buol S.W., Hole F.D. and McCracken R.J. (1973): Soil Genesis and Classification. The Iowa State University Press, Ames, 360p.

Chapter in Book

Loegering, w.Q., 1984. Genetics of the pathogen-host association. In: W.R. Bushnell and A.P. Roelfs (Eds.) the Cereal Rusts, Vol. 1. pp. 165-192. Academic Press, Orlando, Florida.

Paper in Proceedings

Abebe M. (1982). An investigation into the cause of wilt in cotton. Pp. 129-139. Proceedings of Symposium on Cotton Production under Irrigation in Ethiopia. Melka Werer, Ethiopia, 21-22 October 1982, Institute of Agricultural Research.

Thesis and Dissertation Manuscripts

Haftu R, (2012). Lumpy skin disease (LSD): outbreak investigation, isolation and molecular detection of LSDV in selected areas of eastern Shewa, Ethiopia. MSc thesis Submitted to the College of Veterinary Medicine and Agriculture, Addis Ababa University, 61p.

International Web Sites

If one cites from an International Web Sites in the internet, it is necessary to give full address of the Web Site and the date on which the page was accessed as:

Author. (Date published if available; n.d.(no date) if not). Title of article. **Title of web site.** Retrieved **date.** From URL.

Example:

Landsberger, J. (n.d.). Citing Websites. In Study Guides and Strategies. Retrieved January 13, 2013, from <http://www.studygs.net/citation.htm>.

3.2. Appendices (if any)

If an “appendix (ces)” is needed, it is placed just after the “references” as a separate section of the project manuscript. It is preceded by a division of white sheet of paper containing the single capitalized word: **APPENDIX (CES)** in the center of the paper, and is paged (including the division sheet) continuously with the text in Arabic numerals.

Original data tables (a typical example being Analysis of Variance Table) or figures that present data of minor importance (as distinguished from those presenting major data which are included in the text), supportive legal decisions or laws, and pertinent documents that are not readily available to the reader are placed in the “Appendix”. Supplementary illustrative materials, such as forms, questionnaires, descriptions, and other documents may also be presented in the “Appendix”.