

**CSIR COLLEGE OF SCIENCE AND TECHNOLOGY
GHANA-WEST AFRICA**



**GUIDELINES FOR PREPARING AND PRESENTING
DISSERTATION AND THESIS**

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PART A: GENERAL INFORMATION

1.0 Nature and Purpose of Dissertation and Thesis

Dissertation and thesis are capstone learning activities undertaken in partial fulfilment of the requirements of postgraduate degrees at the CSIR College of Science and Technology. The dissertation is required for Master of Science (M.Sc) degrees while the thesis is required for the Master of Philosophy (M.Phil.) and Doctor of Philosophy (PhD.) degrees

There is no universal consensus on the use of the terms “dissertation” and “thesis” (Cone & Foster, 2006). Universally, the distinction between dissertation and thesis is murky. In the United States, for example, thesis tends to be associated with master’s degrees while dissertation tends to be associated with doctoral degrees. However, some U.S. universities use the two terms interchangeably. At the CSIR College of Science and Technology, the term “dissertation” is associated with professional and practice-oriented master’s degrees while the term “thesis” is associated with academic master’s and doctoral degrees - (i.e. the Master of Philosophy and the Doctor of Philosophy programmes).

Dissertation and thesis have one main generic purpose: to give students guided practice in conducting independent research and presenting the results thereof. Regardless of the type, the realization of this generic purpose consists of demonstrating the ability to:

- i. identify or define problems for investigation;
- ii. generate questions and/or hypotheses that guide investigation;
- iii. review, summaries, and critique existing literature;
- iv. apply appropriate methods of investigation;
- v. design data collection instruments and collect data;
- vi. analyses data, discuss the results and draw conclusions;
- vii. derive implications and make recommendations based on findings;
- viii. think and write clearly, critically and coherently; and
- ix. present the results or findings orally and/or publish the results.

These nine elements of dissertation and thesis can be viewed as a revolving spiral rising in complexity from practical orientation to academic theoretical orientation. Dissertation, and thesis are all expected to employ the scientific method; the difference lies in the rigour with which the scientific method is applied. Rigour may be explained in terms of:

- i. how strictly one conforms to the rules of scientific inquiry; the more one deviates from the rules, the less rigorous the research;
- ii. precision in using language to convey ideas with words, figures, diagrams, and pictures; the more one uses words, figures, and diagrams that are subject to different interpretations, the less rigorous the research;
- iii. complexity and sophistication of data analysis and interpretation; and,
- iv. adequacy and firmness of evidence provided to support assertions, claims, and arguments.

2.0 Standards for Dissertation and Thesis

Dissertation and thesis are intellectual products that must meet specifications of fitness for purpose. The following sub-sections clarify expectations for the three types of products.

2.1 Dissertation

The College offers non-academic Master's degrees: Master's by course work and dissertation. The expectations for the dissertation are very similar to those of project work. The dissertation is applied and practical in nature and is intended to focus on the immediate professional development needs of the student. The inclusion of theoretical or conceptual framework is encouraged. Hypothesis testing is optional but encouraged. Data analysis is mainly descriptive but where quantitative research paradigms are used, students are encouraged to use inferential techniques. The candidate is expected to write clearly and demonstrate proficiency in the English language. The length of the dissertation should generally not exceed 100 pages (approximately 25,000 words), excluding preliminaries and appendices. For the avoidance of doubt, the minimum length of dissertation is set at 60 pages, excluding preliminaries and appendices.

2.2 Thesis

At the CSIR College of Science and Technology, theses are written for academic research degrees namely, the Master of Philosophy (M.Phil.) and the Doctor of Philosophy (Ph.D.) degrees. Monograph is the acceptable format in the CSIR College of Science and Technology. The general expectations are as follows:

- i. The candidate demonstrates ability to conduct independent and original research in his/her area of specialization.
- ii. The results of the research make significant contribution to knowledge; that is, the candidate discovers something new that changes the way people think about a problem or phenomenon extends the boundaries of knowledge, contributes to policy making, theory formulation, or the solution of a practical problem.

A thesis must be guided by a theoretical/conceptual framework or model that clearly articulates theoretical, empirical, and hypothesized relationships among concepts and variables in the framework. Candidates are expected to investigate relevant associations, relationships, trends, and population or sub sample differences. In some disciplines, the development and testing of models is expected. Where quantitative research methods are used, the use of inferential statistics is mandatory.

The use of qualitative research methods is encouraged in Master of Philosophy and Doctor of Philosophy programmes, especially, when exploring a subject about which little is known in advance or, for the opposite reason, to further grasp the meanings, motives, reasons and patterns on the subject. Qualitative research is no less difficult than quantitative research. Just as students must take courses in quantitative research methods and data analysis, students who choose the qualitative research (or mixed methods) option must take the requisite courses in qualitative research.

Generally, the length of the M.Phil. thesis should not exceed 150 pages (approximately 37,500 words), excluding preliminaries and appendices. For the avoidance of doubt, the minimum length of thesis is set at 120 pages, excluding preliminaries and appendices.

For Ph.D. thesis, the length should not exceed 300 pages (approximately 75,000 words), excluding preliminaries and appendices. For the avoidance of doubt, the minimum length of thesis is set at 200 pages, excluding preliminaries and appendices.

It is important to note that the number of pages of a dissertation or thesis depends upon the subject of the research. Thus, a dissertation or thesis that exceeds the prescribed limits, is accepted subject to approval by Department/College Research Committees. However, dissertation or thesis must be as succinct in line with the sound scholarly exposition of the subject under investigation and disciplinary norms. Unnecessarily long research reports are viewed negatively since one of the norms of academic scholarship is concision.

2.3 Balance within the main text

The number of chapters a dissertation or thesis should have depends upon the subject and type of the research as well as discipline. However, structure is important as it plays a central role in making such documents understandable to a reader. There should be proper balance among the elements of the main body of a dissertation or thesis. As the requirements of disciplines vary, no rigid proportions can be specified; the following are provided only as guidelines to ensure balance among the chapters of a standard five-chapter thesis:

Table 1: Balance within the Main Text

Chapter Title	Percent of Main Text	Maximum Pages based on max. length of dissertation and thesis
Chapter One: Introduction	10 %	Refer to Appendix N
Chapter Two: Literature Review	25%	
Chapter Three: Research Methods	15%	
Chapter Four: Results and Discussion	40%	
Chapter Five: Summary, Conclusions and Recommendations	10%	

3.0 Responsibilities of the Student /Candidate

The candidate is the author of a completed dissertation or thesis. Authorship of the completed product comes with responsibilities described in Sub-sections 3.1 - 3.7.

3.1 Selection of Topic

It is the candidate's responsibility to search and select a topic that matches his/her academic interests but at the same time appeals to scholars in the field. Supervisors do not "give" topics to students. However, the supervisor has responsibility to guide in fine-tuning the proposed

research topic. The research topic is then approved by Department. Students are expected to 'own' their topics.

3.2 Initiation of Contact

It is the responsibility of the candidate to initiate contact with the supervisor (s) and follow-up to be attended to by your supervisor(s). However, it is advisable for candidate to add their contact phone number and e-mail address to any document they submit to their supervisors so that the supervisors can contact them, if they so desire.

3.3 Literature Search

Accessing the pertinent literature is crucial to the successful completion of the candidate's research. The translation of research methods lessons into practice is a difficult task which is facilitated by reading empirical literature from research articles. By reading empirical literature, candidates learn how other researchers have approached similar problems in the past. Textbooks, newspapers, hand-outs, magazines and other forms of conceptual literature are not likely to give you the necessary insight for the formulation of your own research methods. Candidates are advised to make persistent efforts in search of empirical literature from journals in developing their proposals.

3.4 Submission of Outputs for Appraisal and Feedback

The student must produce written drafts for his/her supervisor(s) to examine and provide feedback. The first submission from the candidate to the supervisor is likely to be a topic and one or two-page outline clarifying the need for the study, background, key research questions or hypotheses, relevant theories, and tentative sketch of research methods. It is better to submit work in small amounts at the beginning and get guidance before moving on, than to pile up and submit a large volume of written work which may, from the point of view of the supervisor(s), not be in the right direction. As a rule, however, follow the preferences of your supervisor(s).

3.5 Language Mechanics

The candidate is responsible for the correct use of English. The candidate must take full responsibility for language mechanics such as grammar, spelling, punctuation, amalgamation and capitalization. Poor writing and mechanical language errors distract supervisors from focusing on the content and technical aspects of the work and slow down the supervision process. It is advisable for candidates to consult writing centres and language editors for help, even before they submit drafts to supervisors.

3.6 Proof-reading

Before you submit your work to your supervisors, proofread what you have written, proof-reading is the responsibility of the author of the dissertation or thesis. Supervisors and examiners are neither proof-readers nor editors. Supervisors have the right to return what you submit if it is clear that you did not proofread your work and you want to shift the responsibility to them. Proof-reading your own work is not always effective as you may become so used to the text. You may seek help from friends and professional proof readers before you submit your work to your supervisor or for examination.

3.7 Conforming to Format and Style Specifications

Conforming to format and style specifications is the responsibility of the candidate. This handbook provides the basic guidance on format and style. Not all your style requirements (such as reference citation) may be covered by this handbook. You should read, undertake further research and consult colleague graduate students whenever you are in doubt. Supervisors are not expected to spend their time correcting format and style errors for you. Use all available resources at your disposal - including the internet to ensure compliance with format and style requirements.

4.0 Appointment and Responsibilities of Supervisors

4.1 Appointment of Supervisors

The College Registry appoints supervisors for students on dissertation/thesis based on recommendations from Department Research Committee.

- i. **Dissertation:** One supervisor is appointed for each candidate. The appointment is made not later than the end of the first year of the course work.
- ii. **Thesis:** A Principal Supervisor and a Co-Supervisor are appointed for each candidate. The appointments are made for Ph.D. thesis at the beginning of the first semester and M.Phil. thesis by the middle of the second semester of the first year.

4.2 Responsibilities of Supervisor

The role of the supervisor is to provide guidance to the student mainly on the technical aspects of research. The technical aspects include research design elements, structure and organisation of the report. A Co-supervisor is generally expected to provide experience to strengthen methodology (e.g. statistics) and/or specialized knowledge, and to take charge if a principal supervisor is absent for continuity.

Specifically, the responsibilities of the supervisor are to:

- i. Guide/advise the student on topic selection to meet the student's career objectives, long-term research interests, and the interests of community of researchers in the relevant field.
- ii. Guide the student on technical aspects of the dissertation, or thesis.
- iii. Provide guidance on sources of literature that the student may consult.
- iv. Draw the student's attention to the strengths and weaknesses in his/her approach to the task.
- v. Have regular supervisory meetings with student.
- vi. Provide timely feedback on specific aspects of work submitted by the student.
- vii. Prepare and submit periodic reports (Progress report) to the College Registry on the student's progress.
- viii. Advise the student on research courses he/she may take or audit to facilitate his/her research design and data analysis activities.
- ix. Guide and verify the corrections the student is expected to make after the examination of the dissertation, or thesis (including the oral examination (viva voce), where applicable).

- x. Ensure that the student is made aware in writing of the inadequacy of progress and/or of any work where the standard is below par. Acceptability will be according to criteria previously supplied to the student.
- xi. Prepare the student for oral examination and dissemination of research findings.
- xii. Refuse to allow the submission of sub-standard work for examination, regardless of the circumstances. If the student chooses to submit without the consent of the supervisor, then this should be clearly recorded and made known to the College Registry.

5.0 Supervisor-Student Working Relationship

Thesis writing is a kind of apprenticeship process; the effectiveness of the process depends on the working relationship between the apprentice and expert.

A healthy working relationship between the student and supervisors is a critical determinant of the successful completion of the dissertation or thesis. Here are some guidelines for building a healthy working relationship between students and supervisors.

- i. Right from the beginning both students and supervisors must agree on how they will interact and exchange information - meeting times, telephone communication, correspondence by e-mail, and submission of outputs in softcopy or hardcopy as well as the scope and substance of the topic.
- ii. The student must show seriousness and commitment to the completion of work. Supervisors naturally respond more positively towards students who show seriousness and commitment to their work. A good sign of seriousness is for the student to bring a draft he/she has worked on instead of expecting the supervisor to tell him/her what to do.
- iii. Both students and supervisors comply with Code of Ethics and Conduct Policy (Student and Staff) of the College and seek counselling or report early.

6.0 Handling Misunderstanding and Conflict

Misunderstandings/conflicts are not ruled out in student-supervisor working relationships. Sometimes, different personalities do not simply click, for reasons that cannot be explained. When misunderstanding/conflicts occur, the student should first do an honest appraisal of his/her own conduct and make amends, where applicable. If the conflict or misunderstanding cannot be solved in this way, the student is advised to seek help from the Academic Advisor and /or report the matter to the Head of Department who may refer it to the Departmental Board for redress. It is not advisable to get other parties involved apart from the Head of Department. Where a formal complaint is made by the student to the Department, he/she must be informed in writing of the action taken by the Department. Unresolved conflict from Departments should be referred to the College Vice President to arbitrate or refer to the Academic Board for resolution.

It is normal for academics to hold different views on matters related to theories and research methodologies. Sometimes a student can get caught between two supervisors who hold opposing or different views. Whenever a student is confronted with different views, it is the student's task to read more on the issue and also take a position that he /she can defend objectively. It is discourteous to use other colleagues' views to persuade the supervisor to change his/her mind.

7.0 Ethical Aspects of Dissertations and Theses

In conducting research in partial fulfilment of the requirements for the award of diplomas and degrees, candidate must abide by the ethical guidelines described in the sub-sections that follow.

7.1 Academic honesty

Academic honesty is vital in dissertation and thesis preparation. Dissertations and theses are worthless if data are concocted, falsified, or deliberately misinterpreted to produce a preferred result or support a particular line of thinking.

7.2 Plagiarism

To plagiarise means to present someone else's ideas as if the ideas were your original ideas. It is academically dishonest to present other people's ideas as if they were your original ideas. Plagiarism can occur unintentionally. Whether intentional or unintentional, plagiarism must be avoided. Always acknowledge the source whenever you present paraphrased, summarized, or quoted material. Always record bibliographical information on sources you consult. Before you begin reading an article or book for your literature review, note the bibliographical details; otherwise, you may not find the source again, and you will be tempted to present the borrowed idea without acknowledging the source.

7.2.1 Submission of Similarity Index Report

To enhance the quality and originality of students' output, all soft and hard bound theses/dissertations submitted by students SHALL together with its similarity index report (SIR) certified by the main Supervisor. This report could be generated at the various Departments.

7.3 Use of Copyrighted Material

It is not enough to acknowledge or credit the sources you use in writing your dissertation or thesis; you must abide by copyright rules. You infringe copyrights if you quote more, than one page of a copyrighted material without the permission of the author or publisher. You infringe copyrights if you reproduce copyrighted tables, diagrams, photographs and maps without permission, no matter how short the material is. The College will reject all dissertations, and theses that infringe copyright laws. Candidates must desist from using copyrighted materials without due permission, because reference citations alone are not enough. Candidates are advised to keep direct quotations short and to the minimum; it is better to paraphrase and adapt than to take materials in whole.

7.4 Interference in the Dissertation and Thesis Examination Process

The examination of dissertation and thesis is a confidential process. Candidates are prohibited from following up or soliciting help from others to contact examiners who are assessing their dissertation or thesis. It is an offence for a candidate to directly or indirectly influence (or attempt to influence) the outcome of the examination process. Examiners are required to report any unauthorized follow-ups intended to influence the outcomes of the examination process. Any attempt to influence the examination process will result in the outright failure of the dissertation or thesis by the College.

7.5 Ethical Clearance

All research activities, particularly those involving human participants come with some costs, and sometimes risks to the individuals engaged. The CSIR College of Science and Technology expects all researchers to apply ethical standards in the conduct of all investigators. Consequently, all research activities involving human participants are to be forwarded to the Departmental Research Committee to review all proposed research projects in order to protect research participants, communities, and the environment. Reports of the Committee are to be forwarded to the College Registry. No research proposal should be implemented unless approval has been granted by Departmental Research Committee. Students are advised to obtain guidelines early and address ethical requirements when they are developing their proposals.

8.0 Preparation and Submission of a Research Proposal

The preparation and submission of a research proposal is the first major step in the dissertation and thesis process. The proposal may range from a few pages (about 15 pages) for dissertation, to more than 60 pages for a thesis. The proposal consists of the Introduction, Literature Review and Research Methods (including the data collection schedule). The research methods part of the proposal is written in the future tense and changed to the past tense after the study has been completed. In order not to leave the future tense in the completed dissertation or thesis, some candidates write the research methods in the past tense at the proposal stage. As the proposal is not submitted to 'the College Registry' what is acceptable is at the discretion of the supervisor(s) and Department concerned.

At the master's and doctoral levels, students are scheduled to present and defend their proposals at open forums for feedback and suggestions. Students should find out from their Departments the schedules for proposal presentations and prepare accordingly. For thesis candidates Departments may require that revised proposals be presented again for feedback and approval before commencing field work.

9.0 Submission and Processing of Dissertation and Thesis

Dissertation and thesis go through different stages before they are accepted as having met the requirements for graduation. Sub-sections 9.1 to 9.2 describe the processing of dissertations and theses respectively.

9.1 Dissertation

One supervisor is assigned to each dissertation candidate. The candidate submits the final copy of his/her dissertation first in soft-bound form for assessment. The soft-bound dissertation is sent two Internal Examiners for assessment. If the dissertation is passed by the two internal assessors, the candidate is asked to effect the necessary corrections and submit the corrected version in hard – bound copy. The College Registry requires that candidates provide evidence that the necessary corrections have been effected in consultation with their supervisor (s) and Head of Department. To meet this requirement, the candidate must add a report which lists the corrections indicated by the examiners and the corrections effected.

The candidate has between fourteen (14) to twenty-one (21) days, after receipt of Assessment Reports from the College Registry, to submit the hardbound dissertation, which shall be

processed and forwarded to Affiliation Office, University of Cape Coast, for final approval by the Board of School of Graduate Studies.

9.2 Thesis

Each thesis candidate - master's or doctorate - is assigned two supervisors, a Principal supervisor and a Co-Supervisor. The candidate submits the initial final copy of the thesis in soft-bound form for assessment. One internal assessor and one external assessor are appointed to assess the thesis. If the two assessors pass the thesis, the candidate is invited to a viva voce (oral examination), after which the candidate effects corrections recommended by the examiners and the viva voce panel in consultation with his/her supervisors. In submitting the final thesis in hard-bound form, the candidate adds a report which lists the corrections indicated by the examiners and the corrections effected. Also, the candidate adds one soft copy of his/her thesis recorded on a CD, firmly fixed to the inside of the front cover.

The candidate has between twenty-one (21) to thirty (30) days, after oral examination, to submit the hardbound thesis, which shall be processed and forwarded to Affiliation Office, University of Cape Coast, for final approval by the Board of School of Graduate Studies.

When a dissertation/thesis is scored below 60% or Graded F by one out of two examiners, a fresh copy of the dissertation/thesis will be sent to a third examiner for assessment.

A candidate, whose dissertation/thesis is scored below 60% or Graded F. by two Examiners or by two out of the three assessment/examinations, is deemed to have failed. A candidate who fails a dissertation/thesis will be required to choose another topic and write another dissertation/thesis within one academic year for fresh assessment.

10.0 Effective Dates and Submission Deadlines to the College

The effectiveness of these dates and deadlines depends on timely submission of reports and documents by the candidate, examiners, supervisors and academic departments to College. These are provided for the guidance of the parties concerned to ensure the timely graduation of student.

- i. The effective date for the award of a Higher Degree shall be 30th September or 31st March each year, provided that the dissertation/thesis (soft bound) is submitted at least 60 days before the effective date, that is, by 31st July or 31st January, respectively. From this narration, students admitted in May and September are to submit the soft bound thesis/dissertation to the College Registry latest by 31st January and 31st July respectively.
- ii. The list of successful candidates for the award of degrees shall be published by the College subject to approval of the Academic Board of the University of Cape Coast.
- iii. After the results have been approved by the UCC Academic Board, a certificate of the appropriate degree under the seal of the University shall be awarded to each successful candidate.

11.0 Copyright and Patent Policy

All dissertations and theses submitted in partial fulfilments of the requirements of degrees are the property of the CSIR College of Science and Technology. Doctor of Philosophy candidates are required to cede to the College, the intellectual property rights that may subsist in theses submitted in partial fulfilment of the requirements for the award of the degree. A copyright notification page must be included in all doctoral theses submitted for assessment. The copyright indicator is centered on the copyright page as follows:

© First, Middle Surname of Candidate
CSIR College of Science and Technology

After the candidate has signed the cession, the College will have the sole right to publish or print the thesis in whole or in part. However, both masters and doctoral students are encouraged to publish from their theses subject to the copyright cession rules.

Note: Students are to download and complete a copyright cession form from the College website

PART B: PHYSICAL FEATURES, FORMAT, AND STYLE SPECIFICATION

12.0 Physical Specifications for Dissertations and Theses

Dissertations and theses are intellectual as well as physical products. The College expects these products to have identical physical features, depending on the type. Just as manufactured products are rejected if they do not meet desired specifications, dissertations and theses are rejected if they do not conform to specifications. Sub-sections 12.1-12.12 describe the physical specifications for dissertations and theses.

12.1 Paper

Use white A4 (210 x 297mm, 80 grams) bond paper for all the inside pages.

12.2 Type Face and Font

All typing must be done with a word processor with font size 12, preferably *Times New Roman*. Exceptions may be made for the use of other type faces and smaller font sizes (but not below 10 points), where technical details are presented in graphic form.

12.3 Spacing

Double-spacing must be used throughout, but long tables may be single-spaced to reduce tables, if any, from spilling over to new pages.

12.4 Indentation

Indent five spaces (use the default indentation) to indicate the beginning of new paragraphs. Note that when double spacing is used, it is difficult to identify the beginning of new paragraphs unless they are indented.

12.5 Margins

Leave 5.08 cm (2-inch) left margin and 2.54 cm (1-inch) top, bottom, and right margins on all pages to stay within binding and trimming requirements. On no account must writing intrude into any of the specified margins in the Preliminaries and Main Text.

12.6 Alignments

Justify both sides of text (left and right justified).

12.7 Pagination

With the exception of the copyright notification page, all pages must be numbered. Numbering begins from the Title page but the number (i) is not shown. Place all page numbers at the bottom of the page and centre them. Two separate series of page numbers are used. Use lower case Roman numerals for the Preliminaries and Arabic numerals for the pages in the Main Text and Back matter. Note that Roman numbering starts from the title page but is not indicated.

12.8 Printing

The quality of printing must have consistently clear characters.

12.9 Oversized Material

Reduce oversized material to the standard page sizes where possible or fold them before inserting them firmly in the dissertation or thesis.

12.10 Landscape of Presentation

Where tables and other illustrative materials are presented in landscape mode, the required allowances for margins must still be made. The materials must be appropriately inserted into the manuscript.

12.11 Soft-Bound Cover

Use light green colour for soft cover binding. Ring binding is not acceptable. Use light green soft cover binding for the submission of final dissertation and thesis.

12.12 Hard-Bound Cover

All hardcover binding must be done at a recognized Printing Press. The colour specifications are as follows:

Dissertation	Green
M.Phil. Thesis	Blue black
Ph.D. Thesis	Red

13.0 General Structure and Format Specifications

Your dissertation or thesis is made up of three main parts (A, B and C) or divisions and their elements (as described in subsections 13.1 to 13.3).

13.1 Preliminaries or Front Matter (A)

- i. Outside Cover and Spine
- ii. Copyright notification for thesis (compulsory for Ph.D., optional for M.Phil.)
- iii. Title Page or Inside Cover
- iv. DECLARATION
- v. ABSTRACT
- vi. ACKNOWLEDGEMENTS
- vii. DEDICATION
- viii. TABLE OF CONTENTS
- ix. LIST OF TABLES/LIST OF FIGURES/LIST OF ACRONYMS

13.2 Main Text or Main Body (B)

- x. CHAPTER ONE
- xi. CHAPTER TWO
- xii. CHAPTER THREE
- xiii. CHAPTER FOUR
- xiv. CHAPTER FIVE

Note: Dissertation and thesis could have more than five chapters.

13.3 Back Matter or End Matter (C)

- xv. REFERENCES
- xvi. APPENDICES
- xvii. VITA (for Ph.D. only)
- xviii. Copies of any papers published from the thesis (Ph.D. candidates only)

The preliminaries of all dissertations and theses must have uniform order and format, and in some cases, uniform wording. Regarding the Main Text or Main Body, the default is the five-chapter structure. However, the College allows flexibility in structure to meet the peculiar needs of academic disciplines. Departments are expected to formally register with the College Registry any alternative structure they prescribe for the Main Text for dissemination to students. The default five-chapter structure will prevail for students in any Department that has not registered an alternative structure with the College Registry.

14.0 Specifications for Elements of the Preliminaries or Front Matter

The Preliminaries or Front Matter is standard requirements, regardless of the student's discipline and Department. Samples of the elements of the Preliminaries are provided as appendices to the Guidelines. In the sub-sections that follow, brief descriptions are given of the nature and contents of the elements of the Preliminaries.

14.1 Outside Cover (Hard-Bound Copy or Soft-Bound Copy)

Final copies of dissertations and theses are submitted in hard-bound cover. The outside cover provides four blocks of information: NAME OF INSTITUTION; TITLE OF THE WORK; NAME OF CANDIDATE; YEAR OF AWARD (all uppercase characters). See and follow the sample in Appendix A.

14.2 Spine

On the spine of the hard copy is printed the name of DEGREE, the FULL NAME OF THE CANDIDATE, and the YEAR of presentation/award in that order (all in upper case characters, except the degree which is written in the standard form such as M.Sc., M.Phil. and Ph.D. See and follow the sample in Appendix B.

14.3 Copyright Notification Page

This page is for M.Phil. and Ph.D. candidates only. It is compulsory for Ph.D. candidates but optional for M.Phil. candidates. In the middle of the page (centered), the candidate writes his/her name in full after the copyright sign ©, and underneath (also centered), CSIR College of Science and Technology. See and follow the sample in Appendix C. This page is not numbered.

14.4 Title Page (Inside cover)

The Title page (or Inside Cover) has six blocks of information: CSIR COLLEGE OF SCIENCE AND TECHNOLOGY; COLLEGE LOGO, TITLE OF THE WORK, BY, FULL NAME OF THE CANDIDATE (FIRST NAME, MIDDLE NAME, AND LAST NAME), all in UPPER CASE; Statement of partial fulfilment of the requirements for the award (single spaced); and, month and year of award. Adapt wording of the statement to fit your department and degree. Title page is page one (in Roman numerals) of the Preliminaries or Front Matter but it is not

numbered or written on the page. See and follow the sample in Appendices D-1 for a thesis and D-2 for a dissertation.

14.5 Declaration

In the Declaration, the student affirms that the work is the result of his/her original research. Also, supervisors affirm that they supervised the work in accordance with guidelines laid down by the College. The wording of the statements in the Declaration is uniform and is reproduced verbatim. Provision is made for candidate's signature and signatures of supervisor(s) The Declarations page carries page number "ii". See and follow the sample in Appendix E-1. Where the student has only one supervisor (dissertation) the sample in Appendix E-2 should be followed.

14.6 Abstract

The abstract should be a brief summary of what the report is about and what the main conclusions are. It should include the following components: purpose of the research, methodology, findings/results, conclusions and/or recommendations and its implications. It should not include anything that is not in the main text. An abstract should not be more than one page. The abstract should be blocked, as presented in Appendix F. Unless in exceptional cases, an abstract should not contain symbols and many technical terms. This page carries page number "iii" and the rest follow.

14.7 Key Words (for Dissertations and Theses only)

A growing trend in academic writing is for authors to provide key words or phrases which may be used in identifying, classifying or locating documents. Provide six key words or phrases which accurately reflect and describe the content of your dissertation or thesis. List the key words vertically in alphabetical order and in double-spacing. See and follow the Sample in Appendix G.

14.8 Acknowledgements

An Acknowledgements provides the opportunity for the student to express his/her gratitude to those who directly assisted him/her to successfully complete the dissertation or thesis. These individuals may be mentors, supervisors, organisations, officials, colleagues, family members, and study participants. Acknowledgements should take a maximum of one page. See and adapt the sample in Appendix H.

14.9 Dedication

Dedication is optional, and not a requirement. Dedications are brief statements; they should be very short, as in **To my family or In memory of my father. It should not be longer than two lines.** Dedication is not an extension of acknowledgement. It is also unconventional to dedicate documents of this nature to any Deity. See and follow the sample in Appendix I.

14.10 Table of Contents

This element should be headed TABLE OF CONTENTS, not just CONTENTS. It is typed in upper case letters. All entries in the table should appear as in the text. A subheading in the table of contents should not read differently on the page to which it refers. TABLE OF CONTENTS should be relatively concise, and should contain only levels 1 and 2 headings. Students are

advised to use the “Insert table” command to set up rows and columns for the proper alignment of the components of the TABLE OF CONTENTS. Hide the vertical and horizontal lines after completing the table. See and follow the sample in Appendix J.

14.11 List of Tables/List of Figures/List of Acronyms

The order in which the lists follow is: List of Tables; List of Figures; and List of Acronyms (where applicable). As they are all parts of the Preliminaries, the page numbers should be in Roman numerals (lower case). Use the “insert table” command in preparing the lists to ensure proper alignment of all entries. See and follow the sample in Appendix L

15.0 Specifications for the Main Text/Main Body

The main text of a dissertation or thesis must be organized into five chapters, each chapter focusing on one aspect of the research process as in sub-section 15.1. In special cases, the number of chapters may exceed five, subject to recommendations by the College Research Committee in accordance with the guidelines of our mentor institution. The style specifications approved by the College for the particular Department must be followed. In this handbook, the APA style is presented as the default style.

15.1 Elements of the Generic Five-Chapter Format for the Main Text (Default)

The generic five-chapter dissertation or thesis has the following in chapter numbers and headings:

CHAPTER ONE	INTRODUCTION
CHAPTER TWO	LITERATURE REVIEW
CHAPTER THREE	RESEARCH METHODS*
CHAPTER FOUR	RESULTS AND DISCUSSION**
CHAPTER FIVE	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

* In Agriculture and Natural Sciences, it may be called MATERIALS AND METHODS

** RESULTS AND DISCUSSION may be separated into two different chapters in some Departments

The key elements of these chapters are outlined in the sub-sections that follow.

15.2 CHAPTER ONE: INTRODUCTION

Before describing the **Background to the Study**, begin with a short introduction that presents the problem under study, why the problem is important, how the study relates to previous work, and the practical and theoretical implications of the study. This introduction is not labelled and should occupy less than one page (APA, 2010, p. 27).

Background to the Study. Describe the context within which the problem occurs (may be the historical, political, technological, industrial, managerial, or organizational) context and so on, for readers to put the problem in context.

Statement of the Problem. Point out existing knowledge gaps, controversies to be resolved, what previous research in the area has not been able to resolve, and so forth.

Purpose of the Study. State the purpose of your study in broad terms.

Research Objectives/Questions/Hypothesis/Assumptions (as applicable).
If you state research objectives and research question ensure the two are aligned.

Significance of the Study. Point out how the results could be used; who will benefit, and how they will benefit from the results.

Delimitation. Define the scope of your study; for example, geographical areas covered or excluded, variables included and excluded.

Limitations. Point out the methodological weaknesses in your research design and how they might have affected the results you obtained.

Definition of Terms. Define variables and terms as you used them within the context of your study.

Organisation of the Study. Briefly describe how your work is organised.

15.3 CHAPTER TWO: LITERATURE REVIEW

Recap what the study is about and what this particular chapter is about. Outline the boundaries of your literature review and how the elements are organised. (Unlike Chapter One, there are no prescribed Sub-headings; each researcher determines the structure of the elements of the chapter).

Theoretical Framework/Conceptual Base of the Study. Every thesis must declare the theoretical frame/conceptual base of the study, and the literature review must address the elements of the theoretical/conceptual framework.

In addition to the theoretical/conceptual framework, the literature review must:

- i. explore the key concepts/theories around which the study is built; clarify your interpretation of these concepts/theories in relation to your study;
- ii. organise your review in a structured manner, from broad to focused, and make sure you cover all important aspects of the problem under investigation;
- iii. give your readers a clear idea of what the various authors you cite are saying;
- iv. critique the literature and not merely report the literature (very important for theses writers); and,
- v. summarise the main points that have emerged from your literature review and their implications for development of your own research.

15.4 CHAPTER THREE: RESEARCH METHODS

Recap what the study is about, what this particular chapter is about, and how it is organised.

Research Design. Show that you are aware of different research paradigm and design alternatives. Articulate your chosen research design and justify it in terms of your research objectives/questions/hypothesis. Point out the strengths and weaknesses of the design.

Study Area. Describe the location of your study (where applicable).

Population. Provide information on the background characteristics of the population, such as age, sex, education and employment status. Give the estimated size of the population. Clarify/justify how the accessible population reflects the characteristics of target population and any limitations thereof.

Sampling Procedure. Clarify the basis for sample size determination. Justify the sampling method. Thoroughly explain the sampling techniques used and summarise the composition of the sample selected.

Data Collection Instruments. Describe the research instruments used and justify their appropriateness in terms of your research objectives, questions, or hypotheses. In addition:

- i. describe how instrument was developed, who developed it, and what informed its contents;
- ii. describe how item format was determined;
- iii. describe the structure of the instrument - the various sections and their objectives;
- iv. show how content and construct validity and reliability were assured;
- v. point out the strengths and weaknesses of the instrument;
- vi. indicate whether the instrument was pre-tested or pilot tested. If the instrument was pilot tested, then the pilot results must be presented;
- vii. indicate how the results of the pre-testing or pilot testing contributed to the finalization of the instrument.

Data Collection Procedures. Provide details on when data (dates, times of day) were collected, for how long, and by whom. Point out any problems encountered in collecting the data.

Data Processing and Analysis. Describe your data editing, data coding, and data entry procedures. Describe measures taken to minimise errors in data entry and other aspects of data processing. Clearly state your units of analysis. Explain in detail how data analysis was done for each research question or hypothesis. Justify the statistical tools used for each hypothesis or research question.

Chapter Summary. End the chapter with a summary of the research methods and possible limitations. (Note that these limitations will appear in Chapter One under the heading “Limitations” as advance caution to readers.

15.5 CHAPTER FOUR: RESULTS AND DISCUSSION

Advance Organiser. Briefly re-state the purpose of the study and summarise the research methods employed, including analytical techniques employed.

Describe the actual sample you finally used and its characteristics.

Present your results/findings by **research question or hypothesis**.

In a separate section, discuss your results. Interpret your findings in reference to the literature or previous findings.

Evaluate each finding and examine the implications with respect to the current theoretical position on the issue as well as practical applications.

End the chapter with a summary of the key findings.

15.6 CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter should give a good overview of the entire dissertation or thesis. It is the last impression.

Begin the chapter with an overview of the purpose of the study, the research questions/hypotheses which guided the study and the research methods employed.

Summarise the results of the study by research question or hypothesis.

The **conclusions** section is based on the findings and is not a restatement of their results themselves. Point out any unexpected findings, anomalies, deviations, and suggest possible explanations for them (logical speculations). Give your overall opinion regarding the study.

What new insights has this study revealed? How has the study contributed to a better understanding of the problem and/or to its solution?

Recommendations. Make recommendations based on the key findings of the study. Each recommendation must be logically derived from findings of the study. Avoid common sense recommendations that are not logically derived from your findings. Where applicable, make specific recommendations to specific bodies, organizations, persons, or policy makers.

Suggestions for Further Research. Almost always, every research effort identifies new areas that need to be studied further, or alternative approaches that could be used to investigate the current problem.

16.0 Style Requirements in Presenting Dissertations and Theses

The term *Style* refers to the conventions, traditions, and rules for communicating in words, numbers, tables, diagrams and other forms. Academic disciplines, higher education institutions, publishing houses, and journals prescribe styles for their members, authors, and contributors. As a prospective academic, you need to be conversant with and comply with style requirements of the academic institution, publishing house, or journal for which you are writing. Style manuals provide comprehensive guidance on rules for academic writing for degrees, journals, and other publications.

The number of style manuals in existence is so large that one cannot list all of them or know the specifications of all. Here is a list of some of common style guides or manuals used throughout the world:

1. *The Chicago Manual of Style*, published by the University of Chicago which is in its 15th edition.
2. *Publication Manual of the American Psychological Association* (APA) which is in its 6th edition and is widely used in publications in psychology, education, business, and the social sciences.
3. *Oxford Style Manual*, published by Oxford University Press, is an **author - title style** as opposed to the **author-date styles** of APA and Harvard. In this system, each citation is given a unique number which is superscripted in the order in which it appears in the text. The terms – “bibliography” and “reference list” are used interchangeably, though ‘reference list’ includes only items actually cited in the text. Footnotes and endnotes are presented below a parallel line that separates them from the body of the text.
4. *Harvard Style* is a generic author - date referencing system created by Harvard University and is widely used.
5. *A Manual for Writers of Term papers, Theses, and Dissertations* (also known as the “Turabian style), initially published by Kate L. Turabian, the Graduate School Dissertation Secretary of the University of Chicago in the 1930s-50s.
6. *MLA Style Manual* (3rd ed.) and the *MLA Handbook for Writers of Research papers* (7th ed.) are published by the Modern Languages Association of America (MLA) for the arts and the humanities.
7. *ACS Style Guide* published by the American Chemical Society.
8. *American Medical Association Manual of Style* guides writers of medical papers published in journals of the American Medical Association.
9. *American Sociological Association Style Guide* is published by the American Sociological Association.
10. *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers* (7th ed.) for scientific papers published by the Council of Science Editors (CSE) a group that was formerly known as the Council of Biology Editors (CBCE).
11. *The Bluebook: A Uniform System of Citation*, published jointly by the Harvard Law Review, Yale Law Journal, Columbia Law Review, and Penn Law Review.

The fundamental rules in using styles/manuals are consistency and currency. In writing dissertations and theses, students must use one style consistently and also use the most current edition of the style manual. It is not acceptable to mix styles or apply outdated editions of style manuals Note, for example, that formerly book titles were underlined in the APA style but now they are italicized.

PART C: COLLEGE PRESENTATION STYLE - APA STYLE (BASICS)

17.0 Organising the Main Text with Heading (Levels of Headings)

The College style is an adaptation of UCC format which is also in line with the APA format, as presented in Table 2.

Table 2: Levels of Heading for College Presentation Style

Level of Heading	Format
1	BOLDFACE, CENTRED, UPPERCASE CHARACTERS, CHAPTER HEADINGS ONLY
2	Flush, Boldface, Uppercase and Lowercase heading
3	Flush, boldface, lowercase paragraph heading
4	<i>Flush, boldface, italicised, lowercase paragraph heading</i>
5	<i>Flush, italicised, lowercase paragraph heading</i>

Table 3 illustrates how the levels may be applied to Chapter One.

Table 3: Application of the Levels of Heading in Chapter One

Assuming this is Chapter One of your Text	Explanation of levels used
CHAPTER ONE	You have used Level 1 for the chapter heading
INTRODUCTION	
Background to the Study	You have used Level 2
First sub-heading under (background to the study)	You have used Level 3
Sub-heading under first sub-heading (Sub-sub heading)	You have used Level 4
Statement of the Problem	This is another Level 2
Purpose of the Study	This is another Level 2
Research Questions and Hypotheses	This is another Level 2
Research questions	Sub-heading, Level 3
Hypotheses	Sub-heading, Level 3
Significance of the Study	This is another Level 2
Delimitation	This is another Level 2
Limitations	This is another Level 2
Definition of Terms	This is another Level 2
Organisation of Study	This is another Level 2
Chapter Summary	This is another Level 2

Note: You do not have to use all the five levels in writing. The levels you use depend on the structure of what you write. If you write a **Background to the Study** that needs sub-sub headings, you may have levels 3 and 4. It is advisable to group your ideas under sub-headings that tell the reader what you are focusing on at a particular point. If you write two pages or more without any headings or sub-headings, your writing is likely to lose focus and you leave the reader wondering what you are about.

18.0 Language and Expression

Writing skill is critical in preparing dissertation or thesis, regardless of the field of study. You must demonstrate competence in academic writing, especially at the master's and doctoral levels. The sub sections that follow describe some important aspects of good writing that should guide you.

18.1 Clarity and Economy of Expression

When you write, let your sentences convey clear meaning. Use words that are not subject to multiple interpretations. Be frugal with words. Avoid wordiness and redundant expressions. Be direct and avoid using evasive language. Use short sentences and avoid dangling sentences and sentence fragments (sentences that do not convey complete thought). Do not force favourite expressions found in a book or article into your writing.

18.2 Objectivity

Academic writing should be devoid of the personal feelings and emotions of the writer. Support your assertions with evidence. Avoid making speculative statements. Logical speculation is acceptable when you are discussing findings and must use reason to try to explain issues that your data are unable to provide clear answers to. Treat other people's ideas with respect, even when you disagree with them. Critique ideas, not the personality of the authors. Though subjectivity is an accepted reality in the qualitative paradigm, this does not mean that a researcher can make assertions that are not supported by evidence collected by him or her.

18.3 Advance Organisers

The first few sentences or paragraphs of any chapter you write must prepare the reader for what will follow. Provide an advance organiser or an overview of what the chapter or section is about. It is a sign of poor academic writing if the reader keeps wondering what you are about after reading several pages of text.

18.4 Active Voice

The trend in academic writing is preference for the use of active and authorship voice which are direct and unambiguous. The passive voice is weaker than the active voice and is sometimes ambiguous on who performed the action. Use the active voice rather than the passive voice. For example, use the first person pronoun (*I*, meaning the author) instead of the phrase (“the author”) or the passive form “the survey was conducted.....” (APA, 2010, p.77).

18.5 Cliché's and Figurative Language

Avoid figurative language, clichés, obsolete expressions, and proverbs that are subject to different cultural interpretations. As a rule, write straightforward English.

18.6 Paragraph Unity and Coherence

A paragraph has unity if every sentence in it contributes to the main idea or topic sentence. Coherence deals with the logical and smooth progression in reasoning; sentence within the paragraph flow naturally and smoothly, leaving no breaks or jumps. Also, avoid one-sentence paragraphs. A paragraph must elaborate on the topic sentence on which it is based. Single sentence standing on their own or too many short paragraphs indicate undeveloped ideas.

18.7 Gender and Other Forms of Bias

Your writing should not convey signs of bias or discrimination against people on the basis of sex, religion, or ethnicity. When you cite authors, do not assume that every author is male and use “he” for all authors. Unless you are 100% sure of the sex of an author avoid using the pronouns “he” or “she” as referents.

19.0 Mechanics of Style

Mechanics of style refers to such things as punctuation, spacing after punctuation marks, use of italics, bolding, abbreviations, and the expression of numbers. The sub-sections that follow highlight some key mechanics of style.

19.1 Punctuation

Punctuation gives meaning to a sentence but can also alter the meaning of a sentence if it is not done correctly. It tells a reader where to pause (commas, semi-colon, and colon), where to stop (period and question mark) and where to take detour (dash, parenthesis, and bracket). Use punctuation marks appropriately.

19.2 Use of the Period.

- i. Use a period in initials of personal names, Latin abbreviations (e.g., a.m., i.e., vs., and et al).
- ii. Do not use periods with abbreviations of the names of states of the US (write NY for New York, and NJ for New Jersey, etc.); do not use periods for capital letter abbreviations (e.g. write AMA for Accra Metropolitan Assembly); and do not use periods with metric and non-metric measurement abbreviations (e.g. write cm, ft, hr, kg, lb, min and s). However, use a period with the abbreviation for inch (in.) to differentiate it from the preposition “in”.

19.3 Spacing after Punctuation Marks

- i. Insert a space after a period.
- ii. Insert one space after a comma, colon, and semi-colon. Also, insert one space after periods that separate parts of a reference citation, and one space after periods of initials in personal names, as in ‘Asante, C. R. and, J. K. Baafi’.

19.4 Spelling

Use United Kingdom English spellings consistently. If you quote material verbatim, leave the spelling in its original form if it is American. It is advisable to set your default spelling to United Kingdom English whenever you work on your dissertation, or thesis.

19.5 Capitalisation (APA, 2010, p.101)

- i. Capitalise the first word in a sentence.
- ii. If a complete sentence follows a colon, capitalize the first word that comes after the colon.
- iii. Capitalise the first letter of major words in **titles** of books and articles in the main text. Do not capitalize conjunctions and short prepositions (e.g., at, but, and, of, to, in) but capitalise all words that have four or more letters (e.g. Within, Under, and From). Note, however, in your reference list, capitalise only the first word after colon and proper noun.

Also, you do not capitalise the second word of a hyphenated compound; for example, write “Agro-chemical” and not “Agro-Chemical.”

- iv. Capitalise the first letter of major words in table titles but capitalise only the first word and proper nouns in column headings of tables. Also, capitalise only the first word of figure captions.
- v. Capitalise reference to major sections of your work; for example, the Discussion sections, the Data Analysis section, and Chapter Two.
- vi. Capitalise the names of university departments and academic courses if they refer to specific departments or course titles; for example, Department of Physics, and Department of Human Resource Management. Generic course and subject names should not be capitalised; for example, write “in human resource management, accounting, and other business-related subjects,” not in Human Resource Management, Accounting, and other Business-related subjects.”
- vii. Capitalise the brand names of drugs, food, and equipment; for example, write “Toyota, Sunlight soap, Compaq computer.” However, do not capitalise the names of laws, theories and statistical procedures. For example, write “the theory of cognitive dissonance, theory of stimulus generalization, theory of identical elements, the law of demand, t-test, analysis of variance” (but you may use the abbreviation ANOVA).
- viii. Capitalise nouns that followed by numerals or letters denoting a specific place in a series; for example, Table 5, Research Question 5, Hypothesis 4, and Experiment 6.
- ix. Capitalise the exact titles of published and unpublished test, for example, Miller Analogies Test.

19.6 Italics (APA, 2010, pp. 104-106)

In general, minimize the use of italics as much as possible. Use italics for:

- i. Titles of books, periodicals, films, videos, and TV shows.
- ii. The first use of a new, technical or key term. In all subsequent uses, do not italicise.
- iii. A letter, word or phrase used as an example, for example, “such as the letter *k*.”
- iv. Words that could be misread.
- v. Letters used as statistical symbols or algebraic variables.
- vi. Periodical volume numbers in reference lists, for example, *Journal of Heritage Tourism* 4(2). Note that issue number is not in italics.
- vii. Anchors of a measuring scale, as in: Respondents were asked to rate on a five-point scale ranging from 1 (poor) to 5 (excellent).

Do not use italics for foreign words commonly used in English. (e.g. *per se*, *vis-à-vis*, and *a priori*), chemical terms, trigonometric term, Greek letters (e.g. β), and letters used as abbreviations.

19.7 Abbreviations (APA, 2010, p.106)

- i. Use abbreviations sparingly. Decide whether to spell out a given expression each time you use it or spell it out the first time and use the abbreviated form subsequently.
- ii. Certain well-known abbreviations that have become accepted as words, such as HIV and IQ, do not need explanation in the text.

- iii. Use standard Latin abbreviations (e.g., vs., viz., i.e., and etc.) only in parenthesis. Outside the parenthesis, use their English equivalents, **for example, versus, that is, and so forth.**
- iv. Abbreviate the following units of time: ‘hr’ for ‘hour’; ‘min’ for ‘minute’, ‘ms’ for ‘millisecond’, and ‘s’ for ‘second’.
- v. To form the plurals of most abbreviations and statistical symbols, add “s” alone but do not italicise and without an apostrophe. Example: IQs, Eds., and vols.
- vi. You may begin a sentence with a capitalised abbreviation (e.g. UNESCO...) but never begin a sentence with an abbreviation in lowercase or a symbol that stands alone.

19.8 Expression of Numbers (APA, 2010, p.111)

The guidelines tell you when to write numbers in figures and when to write them in words. For example, you should never start a sentence with a number written in figures.

(a) Express numbers in figures in the following situations:

- i. All numbers 10 and above. For example, “All children above 12 years” However, when there is a series of numbers (three or more), write them all in figures, including those below 10.
- ii. Numbers that immediately precede a unit of measurement, for example, a 6-inch margin.
- iii. Number that represent ratios, percentages, decimal quantities, statistical or mathematical functions. Examples: approximately 9% about 3½ times large; in a ratio of 3:2.
- iv. Numbers that represent time, dates, ages, sample size, population size, and specific numbers of subjects in an experiment. Examples: 4 weeks after the interview; 2 hrs. 30 min.
- v. Numbers that denote a specific place or level in a numbered series. Examples: JSS 3; Form 2; Table 4; and Chapter 2.
- vi. All numbers in the Abstract of a paper.
- vii. Follow universally accepted usage in writing expressions such as “the Ten Commandments.”
- viii. To form plural of numbers, add “s” or “es” without an apostrophe, e.g. in the 1970s.

(b) Express numbers in words in the following situations:

- i. At the beginning of a sentence, title or heading. Example: “One hundred and twenty respondents.....”
- ii. Numbers below 10 that do not represent units of measurement. Example: a two-tailed test.
- iii. The number zero and one.
- iv. Common fractions. Example: one-third of the class.
- v. Universally accepted expressions such as “The Garden of Eden” and “The Twelve Apostles.”

19.9 Enumeration

The rules for enumerating elements in a series are as follows:

- (a) **Within a Paragraph or Sentence.** Within a paragraph or a sentence, identify elements in a series by lower case letters in parentheses (not underlined). Use commas to separate three or

more elements that do not have internal commas. Use semi-colons to separate three or more elements that have internal commas.

Example 1: No Internal Commas

The components of the post-training briefing were (a) extent to which the trainee had learned content, (b) identification of transfer barriers the trainee might encounter, and (c) identification of opportunities for using skills acquired.

Example 2: Internal Commas used

In further analysis, two new groups were formed from the original groups according to reported levels of transfer: (a) high-impact, for scores 3.0 and above; (b) low-impact, for scores between 3.0 and zero; and, (c) negative impact, for scores below zero.

- (b) **Separate Paragraph in a Series.** If the elements enumerated are in separate paragraphs, such as a list of recommendations, the elements are identified by Arabic numerals followed by a period but not enclosed in parentheses.

Example:

The following recommendations are offered:

1. Fund should be set aside for follow-up and continuing education.
2. Follow-up and continuing education programmes should be nationally coordinated to avoid duplication.
3. A national business information system should be developed.

19.10 Hyphens, Dashes, and Minus Sign (APA, 2010 p.97)

Apply the following rules for typing hyphens, dashes, and minus signs.

- i. **Hyphen:** Leave no space before or after the hyphen (e.g. on month-to-month basis).
- ii. **em dash.** The em dash is longer than a hyphen and is obtained by typing two hyphens with no space before or after. It is used to set off an added phrase from the main clause. For example: all graduating students--undergraduate or graduate--are affected by this regulation.

Note: In some word-processing software, two hyphens typed without spaces before or after automatically join to produce a dash.

- iii. **en dash:** This dash is used to join two words of equal weight. It is longer and thinner than a hyphen but shorter than the **em dash**). It may not be available on your word processing software so simply type the hyphen with no space before or after, as in “the Accra-Kumasi road”.
- iv. **Minus sign:** A minus sign is obtained by typing the hyphen and leaving one space before and after (e.g., 15 - 12 = 3). Note that the hyphen becomes longer when space before are left before and after it.

When two or more compound modifiers have a common base, retain the hyphens but omit the common base in all except the last modifier (e.g., short-, medium-, and long-term loans; 2-,4-, and 6–inch pipes respectively).

20.0 Displaying Results in Tables and Figures (APA, 2010, p.125)

20.1 General Guidelines

- i. Obtain written permission for copyrighted tables, figures, and questionnaires you reproduce or adapt. Commercial tests and instruments are highly protected and copyright permission is required before they are used.
- ii. Carefully choose the number of graphical elements (tables, and figures, etc.) to include in your dissertation or thesis. You should not have a disproportionately large number of tables and figures compared with the text that accompany them.
- iii. Today, the results of many tests of statistical significance (such as ANOVA) can be presented in text, not necessarily in tables.

20.2 Tables (see the example in Appendix K)

- i. Give each table a brief but clear explanatory title. Provide brief column headings to give meaning to items in the columns. You may use standard abbreviations and symbols in table heading without explanation.
- ii. Use italicised upper and lower case characters (title case) in typing table titles (APA, 2010 pp. 128-131). There should be no period (full stop) after the title of the table. Any time a table is cited, the table should be in initial capital (e.g. Table 10).
- iii. Number tables consecutively with Arabic numerals in the order in which they are first mentioned in the text. If a table is not mentioned at all in the text, it should not appear anywhere in the dissertation or thesis. Do not use decimal fractions or letters in writing table numbers (e.g. Table 2.5 or Table 10a).
- iv. Keep your tables concise but explanatory; do not clutter your tables with trivial details.
- v. Mention tables in the text before you present them. As much as possible present the table on the page on which it is mentioned in the next. Refer to each table in text and tell readers what to look for. Discuss only the highlights and do not recite the details or comment on every item in the table.
- vi. In citing tables, refer to them by their number, not as the “table above” or “table below”.
- vii. Tables may be presented in either single or double spacing (APA, 2010, p 141); the guiding principle is the readability of the table. Use font size 12 in typing tables. However, in exceptional cases (such as to keep a table from spilling over to another page) you reduce the font size up to 10.
- viii. If a table spills over to the next page, there should be an indication that the table is continued (e.g. Table 10, continued).
- ix. Reduce the use of ruled in presenting tables to those that will make the table readable (APA, 2010, p. 141). Use ruled lines only when they will improve the readability of the table.
- x. Turning tables sideways (landscape) is an inconvenience to the reader. However, if your table cannot fit across the page (portrait), you may turn the pages sideways (landscape).

20.3 Presentation of Figures

Any illustration which is not a table is considered a figure. Examples of figures are graphs (e.g. line, bar, pie charts, and scatter graphs), charts, drawings, and photographs.

Every figure must have a caption. A caption is a concise explanation of what the figure is about. Captions for figures are written below the figure (not above the figure). Arabic numerals are used to number figures consecutively throughout the text. A caption should be single spaced if it is longer than one line. It should be self-explanatory.

Example of a Figure Caption:

Figure 1: Staircase pattern of improvement in record-keeping practices. Where relevant, a legend should be provided to aid readers in understanding the figure. A legend (or key) explains the symbols used in the figure.

21.0 Appendices

Appendices are numbered consecutively with numbers 1, 2, 3, 4, and so on in the order in which they are first mentioned in the text.

22.0 Reporting Inferential Statistics

When reporting inferential statistics, provide “sufficient information” to the reader (Table 4). However, do not show details of computations in the main body of the dissertation or thesis. You may show details in the Appendices section. Examples of the information you report presented in Table 5, 6, 7, Appendix K.

Table 4: Information Required in Reporting Inferential Statistics

Test – statistic	Information Required Reporting
t-test	Mean, standard deviation, effect size, degrees of freedom.
F. test	Degrees of freedom, computed F- ratio, MSE.
χ^2	Degrees of freedom, sample size, $\chi^2 (4, N=90) = 10.51, p = .05$.
Correlation coefficient	Sample size, variance, covariance, correlation matrix
Reporting statistical Significance	State alpha level (Type I error). Example. An alpha level of .05 was used for all statistical tests

23.0 Reference Citation

A reference is the acknowledgement of the source of ideas, claims, and assertions used in the document. The objective is to give credit to sources from which you got ideas and to show that the ideas and assertions you are presenting are not your own. If you do not reference, you are guilty of plagiarism. The APA style uses the **author-date citation system which requires that** the surname of the author (s) and the year of publication are inserted at the appropriate point in the text. In - text citations are then supported by a reference list (**Reference** - see Appendix M) which comes immediately after the last chapter of the dissertation or thesis. As you cite a source in text, you must immediately enter the full details of the source among your References. If you postpone the entry of the citation in

your References, you are likely to have a reference list which does not match the in-text citations – some sources you cite in text may not be in the reference list while some sources you consulted but did not cite in text, may appear in the reference list. Both errors undermine the credibility of your citations.

23.1 In-Text Citations

There are two formats for in-text citations: (a) parenthetical citations (also called non-integral citations), and (b) non-parenthetical citations (also called integral citations).

Example of Parenthetical Citations:

A study found that for some participants in entrepreneurial training, expectations of financial assistance overshadowed the objective of training (Akplu, 1998).

Note: In a parenthetical citation, the author and year are enclosed in parenthesis; they are not part of the narrative. Where there are two or more authors for the same work, the ampersand sign (&) is used. Do not use the ampersand sign outside the parenthesis. Some other style manuals use "and" within the parenthesis but note that APA style does not do so

Example of Non-Parenthetical Citation

Akplu (1998) found that for some participants in entrepreneurial training expectations of financial assistance overshadowed the objectives of training.

Notes: In a non-parenthetical citation, the author's name is outside the parenthesis. The author's name is part of the narrative and only the year is in parenthesis. The sentence will read correctly if the year is deleted. Where there are two or more authors, write and in full (and); the ampersand sign (&) is not used outside the parenthesis in the main text. However, in the reference list, the ampersand sign is used.

23.2 Rules for In-Text Citation

i. Citation of Work by One Author

State the surname and year on every citation of the same work. However, if you cite the same author subsequently in the **same paragraph, do not** add the year.

ii. Citation of Work by Two Authors

Always state the surnames and year on every citation of the same work. However, if you cite the same authors subsequently in the **same paragraph, do not** add the year.

iii. Citation of Three, Four, or Five Authors of the same Work

On the first citation of the work, name **all the authors and the year**; in subsequent citations of the same work, name only the first author and use the abbreviation “et al.” for the others followed by the year. However, if you cite the same authors for the same work in the same paragraph, omit the year

Examples, Non-Parenthetical and Parenthetical

First Citation: Cohen, Fink, Gadon, Willits and Josefowitz (1992), OR
(Cohen, Fink, Gadon, Willits, & Josefowitz, 1992)

Subsequent Citations: Non-Parentetical and Parentetical

Cohen et al. (1992)
(Cohen et al., 1992)

iv. Citation of Six or more Authors of the same Work

First Citation: Oslon et al. (2003)
(Oslon et al., 2003)

Subsequent Citations: Oslon et al. (2003)
(Oslon et al., 2003)

Entry in Reference List

Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K. Z., & Duncan, K. A. (2003) The impact of the family and the business on family business sustainability. *Journal of Business Venturing*, 18, 639-666.

v. Citation of groups/agencies/organisations as authors (APA, 2010, p.176)

“Groups” refer to organisations, associations, government agencies, multinational agencies, and so forth. Spell them out each time you cite them; that is, in first and subsequent citations. You may, however, use the abbreviated form or acronym in subsequent citations if the abbreviation is well known or if the name is long and cumbersome

Examples

First Citation: (Japan International Cooperation Agency [JICA] & Oguaa Business Incubator [OBI], 2008).

Subsequent citations: (JICA & OBI, 2008)

Subsequent citations: JICA and OBI (2008)...

vi. Citation of Works with no Authors

As prices of commodities showed signs of scaling back, several African countries need to prepare for a slow-down ("More than just commodity markets," 2011)

Entry in Reference List:

More than just commodity markets. (2011, March). *Africawatch*, p. 42.

vii. Citation of two or more works by different authors within the same parenthesis.

List the authors in alphabetical order by the first author's surname. Separate citations by semi colons.

Example

Several other researchers (Aldrich, 1979; Covin & Slevin, 1991; Gibb, 1988; Mehan-Neill, 1995) have highlighted the influence of environmental factors in small enterprise and organizational development.

- viii. **Citation of Work Discussed in a Secondary Source.** Ideally, you should read and cite only primary sources (the original article, book, or report, etc) However, if access to the original is absolutely impossible, cite the secondary source. In the text, name the original source and give the citation for the secondary source (the source you actually read).

Example

You read Bowman Upton and Sexton's book, and in the book they make reference to some observations made by Hofer and Schendel (published in 1991), In the text, you citation should read:

Hofer and Schendel (as cited in Bowman-Upton & Sexton, 1991) have observed that...

Note: You will enter only Bowman-Upton and Sexton in the list of references (not both).

24.0 Direct Quotations of Sources (APA, 2010, p. 170)

Indicate clearly when you quote other authors verbatim (word-for-word) Here are the different ways of doing this in your text:

- (a) When you quote, always provide the author, year, and specific page for quoted materials. Ensure that the beginning and end of the quotation are marked.
- (b) Quote sources accurately; use the exact wording, spelling, and punctuation of the original sources, even if the source uses wrong spelling, grammar, or punctuation. Insert the word *sic*, italicised and bracketed [*sic*] immediately after the error and then continue to the end of the quotation. Use brackets [], not parenthesis () to enclose any material that you introduce into a quotation.

However, you may make the following changes in a quotation (APA, 2010 p. 172):

- i. You may change the first letter of the first word in a quotation to an uppercase or lowercase to fit the quotation into your sentence.
 - ii. You may change double quotation marks to single quotation marks or example, if a quotation is within a quotation.
- (c) Use three spaced ellipsis points (...) to indicate that you have omitted some material from the original source. Use four ellipsis points (....) to indicate material omitted between two sentences. The first point is for the period at the end of the first sentence while the remaining three ellipsis points indicate the omitted words. Note that in quoting sources, it is unethical for you to omit words that make the quotation favourable to the point of view the you are advancing.
 - (d) Use ellipsis points at the beginning or end of a quotation ONLY when you want to point out that the quotation begins and ends in midsentence. (APA, 2010, p. 173) immediately insert in bracket [emphasis added] immediately after the close of the quotation and continue the sentence.
 - (e) To emphasise a word or words in a quotation, italicise the word and immediately insert in bracket [emphasis added].
 - (f) If the quotation comes in midsentence, cite the source in parenthesis immediately after the close of the quotation mark and continue the sentence.

Example:

Small enterprise development has earned the accolade “Cinderella of economic policy” (Dawson, 1993, p. 71) for its popularity as a development strategy among development economists.

- (g) If the quotation comes at the end of a sentence, cite the source in parenthesis immediately after the close of the quotation and continue the sentence.

Example:

According to *the doctrine of formal discipline*, “transfer can occur between domains that share no content at all” (Larkin, 1989, p. 284).

- (h) Where the quotation consists of less than 40 words, mark the quotation with double quotation marks and weave it into your own sentence, making sure that your sentence remains grammatically correct.

Example:

One strength of the interview strategy is that it “permits researchers to verify, clarify, or alter what they thought happened, to achieve full understanding of an incident” (Hutchinson, 1988, p. 125).

- (i) Where a quotation consists of 40 words or more, indent the quotation to the same position that new paragraphs start but do not use quotation marks to mark it. At the end of the block quotation, cite the author, year, and page number in parenthesis after the period ending the quotation. The indented form of a quotation is called a block quotation.

Example:

Two leading training professionals and researchers have drawn attention to the neglect of transfer of training in the development of training programmes and pointed out that:

Generally, trainers put all their efforts into the needs analysis, design, and delivery of training. Research and expert professional opinion maintain that these efforts result in a relatively low level of what we might call “involuntary” or unsupported transfer.... Our experience with many organisations has uncovered a wide range of difficulties in achieving transfer of training. We have not yet found a training situation in which no transfer problems occur... (Broad & Newstrom, 1992, pp. 8-9).

- (j) If the block quotation is cited in a sentence that introduces it, only the page number is needed in the parenthesis that comes at the end of the quotation.

Example

Borg and Gall (1989) gave the following rationale for the use of qualitative in education:

Qualitative research methods such as case study are probably the best means available to describe a new phenomenon and develop an understanding of it. Often an in-depth study of one individual using observation and interview will give a far better understanding than will a shallow survey of 100 subjects. (p. 408)

- (k) If you quote a source which also contains a citation, do not omit the citation from the original materials. Do not include the embedded citation in your list of references, unless you have used it yourself directly.

25.0 Reference Components and Examples

In the College style, a reference has four basic components

- (1) Author and Editor Information
- (2) Publication Date
- (3) Title of the Work
- (4) Publication Information

Illustration of the Components of a Reference for a Book

Author Information	Publication Date	Title of Work	Publication Information
(1)	(2)	(3)	(4)

Stevenson, W. J. (1999). *Production operations management* (6th ed.). Boston, McGraw-Hill.

In this illustration, the normal sequence of the author’s name is William J. Stevenson. In referencing, the order of the names is reversed, with the surname coming first. The book was in the 6th edition in 1999: it was published by the publishing giant McGraw-Hill in the city of Boston in the state of Massachusetts (MA).

Out of the four basic components of a reference spring several sub-components that deal with varied, unique, and peculiar situations. For example, regarding author information a work may have two, three, or more than six authors; a work may be authored by an organisation or an agency rather than an individual; and a work may be a chapter in an edited book that has chapters written by other authors. The APA has guidelines for coping with these and other variations. Sub-sections 25.1 to 25.13 illustrate some of the frequently encountered types of referencing formats, beginning with formats for periodicals.

25.1 Format for Periodicals

As the name suggests, periodicals are publications that occur on a regular basis-daily, weekly, monthly, quarterly and so on. Periodicals include journals, magazines, newspapers, and newsletters. The general format for presenting references to periodicals is as follows

Author, A. A., & Author, B. B. (Year). Title of article. *Title of Periodical*, V (n), p-p

Notes: *Title of Periodical* is in title case and italics; Volume number is in italics; issue number (n) is in parenthesis; p-p is page range. Issue numbers apply if each issue of the journal begins with page 1.

Examples of References to Journal Articles

Menyanu, E. K., & Ogah, J. K. (2012). Predictors of total cholesterol levels of University of Cape Coast students. *Nigerian Journal of Health Education*, 8(1), 250-266.

Owusu-Ansah, L. K. (2013). Communication of language attitudes: An exploration of the Ghanaian situation. *The International Journal of Language Learning and Applied Linguistics World*, 2(1), 65-76.

(Note that “p” and “pp” are omitted in indicating pages for journal articles. The title of the article is not underlined or italicised, but the *title of the journal and volume number are in italics*).

25.2 Reference to an Article from an Electronic Journal (E-Journal)

General Format:

Author, A. A., & Author, B. B. (Year). Title of article. *Title of Periodical*, V(n), x-xx.
Retrieved from <http://www.xxxx>.

Examples

Okorley, E. L., & Nkrumah, E. E. (2012). Organizational factors influencing sustainability of local Non-Governmental Organizations: Lessons from a Ghanaian context. *International Journal of Social Economics*, 39(5), 330-341. Retrieved from <http://www.emeraldinsight.com/doi/pdfplus/10.1108/03068291211214190>.

Ballard, S. D., March, G., & Sand, J. K. (2009). Creation of a research community in a K-12 school research and evidence-based practice. *Evidence Based Library and Information Practice*, 4(2), 8-36. Retrieved from [/index](#)

25.3 Reference to a Magazine Article

Chase, J. (1995, May). The wonderland economy. *INC.*, 16-24

Wolf, L. (2010, October-December). Person to person with the Hamer tribe. *Selamia, The In-flight Magazine of Ethiopian Airlines*. 27(4) 40-42.

25.4 Reference to Newspaper Articles

General Format:

Author, A. A. (Year, month, day). Title of article. Name of newspaper, p or pp.

Notes: p or pp precedes page number(s). If an article appears on different pages, state the

page numbers separated by a comma (e.g. pp. 1, 3, 11-12).

Article with Name of Author

Vinokor, M. (2007, October 29). Exam cheating eroding gains. *Daily graphic*, p. 1.

Bonney, E. (2009). Danger looms: Senior high schools face imminent closure. *Daily Graphic*, p. 1.

Article in Newspaper, no Author

When citing in text, use the caption of the article in place of “author.” An example of an in-text citation.

An NGO called for the review of the mandate and operations of orphanages and child homes (“Review mandate of orphanages,” 2009).

In reference list: Use the caption of the article in place of author, as follows:

Review mandate of orphanages. (2009, February 16). *Daily Graphic*, p. 31.

25.5 Reference to Books

General Formats-for the General, Edited, and Electronic Books

Author, A. A. (Year). *Title of work*. City of Publication, State/Country: Publisher.

Author, A. A. (Ed.). (Year). *Title of work*. City of publication, State/Country: Publisher.

Author, A. A. (Year). *Title of work*. Retrieved from <http://www.xxx xxx>

Examples:

Book (One Author)

Ogah, J. K. (2013). *Decision-making in the research process: Companion to students and beginning researchers*. Accra, Ghana: Adwinsa.

Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press.

Book with Two or more Authors (2nd and other Editions)

Stevenson, H. H., Roberts, M. J., & Grousbeck, I. H. (1994). *New business ventures and the entrepreneur* (4th ed.). Burr Ridge, IL: Irwin.

Edited Book - Reference to the whole Book

Campos, J. E., & Pradhan, S. (Eds.). (2007). *The many faces of corruption: Tracking vulnerabilities at the sector level*. Washington, DC: The World Bank.

Chapter in an Edited Book (hard copy and electronic copy)

Author, A. A. (Year). Title of chapter. In A. A. Editor, B. B. Editor, & C. C. Editors (Eds.), *Title of book* (pp. xxx-xxx). City of publication, State/Country: Publisher.

Author, A. A. (Year). Title of chapter. In A. A. Editor, B. B. Editor, & C. C Editors (Eds.), *Title of book* (pp. xxx-xxx). Retrieved from <http://www.xxxxxxx>.

Examples of Chapter in an Edited Book, Hard Copy

Boeh-Ocansey, O. (1995). Education and training for the informal sector, Ghana. In F. Leach (Ed.), *Education and training for the informal sector*, Volume 2 (pp. 10-48). London, England: Overseas Development Administration.

Patrinós, H. A., & Kagia, R. (2007). Maximizing the performance of educational systems: The case of teacher absenteeism. In J. E. Campos, & S. Pradhan (Eds.), *The many faces of corruption: Tracking vulnerabilities at the sector level* (pp. 63-88). Washington, DC: The World Bank.

Osei, B., Baah-Nuakoh, A., Tutu, K., & Sowa, N. K. (1993). Impact of structural adjustment on small-scale enterprises in Ghana. In A. H. J. Helmsing, & T. Kolstee (Eds.), *Small enterprises and changing policies: Structural adjustment, financial policy and assistance programmes in Africa* (pp. 53-70). London, England: Intermediate Technology Publications.

25.6 Reference to Technical and Research Reports

Author, A. A. (Year). *Title of work* (Report Number). City of publication, State/Country: Publisher.

Oldsman, E., & Hallberg, K. (2002). *Framework for evaluating the impact of small enterprise initiatives* (SED Working Paper No. 3). Bern, Switzerland: Swiss Agency for Development and Cooperation.

25.7 Reference to Corporate Author, Government Report

Name of organisation or Government agency (Year). *Title of report*. City of publication, State/Country: Publisher.

Examples:

A book with a Corporate Author

World Bank (1993). *Ghana 2000 and beyond: Setting the stage for accelerated growth and poverty reduction*. Washington, DC: The World Bank.

Government/International agency as published

Ghana Statistical Service (1999). *Ghana demographic and health survey 1998*. Accra, Ghana: Author.

National Development Planning Commission, Republic of Ghana (2000). *Growth and Poverty Reduction Strategy (GPRS II), 2006-2009*. Accra, Ghana: Author.

25.8 Reference to Conference Papers

Proceedings Published as a Book

Editor, A. A. (Ed.). (Year). *Title of paper. Proceedings from (Name of organisation/Conference)*. City, Country: Publisher.

Example

Opoku-Agyemang, K. (Ed.). (2011). *Culture, science and sustainable development in Africa. Proceedings from the first University Cape Coast and University of Ilorin Joint International Conference*. Cape Coast, Ghana: University of Cape Coast.

Conference Papers

Unpublished

Author, A. A. (Year). *Title of paper*. Paper presented at (Name of organisation/Conference), City, Country, Date(s).

Example

Santhanam, E., Martin, K., Goody, A., & Hicks, O. (2001). *Bottom-up steps towards closing the loop in feedback on teaching: ACUTSD project*. Paper presented at Teaching and Learning Forum – Expanding horizons in teaching and learning, Perth, Australia, 7-9 February 2001.

From a published book

Author, A. A. (Year). *Title of paper*. In Editor (Ed.). *Proceedings of (Name of organisation/Conference)*. (pp. p-p). City, Country: Publisher.

Example

Dadzie S. K. N., Okorley, E. L., & Bosompem, M. (2012). Effect of climate change outcomes on food production and implication for food security: A Ghanaian case. In I. O. Oloyede (Ed.). *Proceedings of the Second University of Cape Coast and University of Ilorin Joint International Conference on Climate Change and Sustainable Development in Africa*. (pp. 375-389). Ilorin, Nigeria. University of Ilorin.

From a journal issue

Author, A. A. (Year). *Title of paper*. Proceedings of (Name organisation/Conference). *Title of Journal*, V(n), p-p.

Example

Smith, P. L. (1999). Motivation for exercise. Proceedings of the Conference on Health and Fitness. *Journal of Health Promotion*, 42(1), 258-98.

From the internet (online)

Author, A. A. (Year, Month). *Title of paper*. Paper presented at (Name of organisation/Conference, City. Retrieved from <http://www.xxxx>.

Example

Nebel, B. (2012, March). *Overview and discussion of carbon footprinting standards and guidelines*. Paper presented at the 2nd New Zealand Life Cycle Assessment Conference, Auckland. Retrieved from <http://www.lcaconference.org.nz/proceedings>.

25.9 Reference to a Thesis or Dissertation

Author, A. A. (Year). *Title of thesis or dissertation*. Unpublished doctoral or master's thesis. Name of Institution. City, State/Country.

Examples:

Akplu, H. F. (1998). *Transfer of entrepreneurial training in small enterprise development in Ghana*. Unpublished doctoral dissertation, Department of Vocational and Technical Education, University of Illinois, Urbana-Champaign.

Akuffo-Badoo, F. (2007). *The effect of moderation of continuous assessment scores on the performance scores of candidates at the Basic Education Certification Examination level*. Unpublished master's dissertation, Department of Educational Foundation, University of Cape Coast.

25.10 Reference to a Thesis or Dissertation Available Online

Author, A. A. (Year). *Title of thesis or dissertation* (Master's/Doctor dissertation/thesis, Name of Institution). Retrieved from <http://www.xxxxxxxxxx>.

Miller, T. J. (2009). *Investigating elementary teachers' perceptions about, and experiences with Ontario's teacher performance appraisal system*. (OISE, University of Toronto, Canada). Retrieved from http://tspace.library.utoronto.ca/bitstream/1807/19155/3/Miller_Thomas_J_2009_11_PhD_thesis.pdf.

Van Wyk, M. M. (2007). *The use of cooperative learning in economics in the further education and training phase in the Free State Province*. (University of the Free State Bloemfontein). Retrieved from <http://etd.uovs.ac.za/ETD-db/theses/available/etd-06242008-094053/unrestricted/VanWykMM.pdf>.

25.11 Reference to Unpublished and Informally Published Works

Author, A. A. (Year). *Title of manuscript*. Unpublished manuscript [or “Manuscript submitted for publication.”]

Mead, J. V. (2002). *Citation analysis: Investigating the quality of doctoral reference lists*. Unpublished manuscript.

OR

Mead, J. V. (2002). *Citation analysis: Investigating the quality of doctoral reference list*. Manuscript submitted for publication.

25.12 Reference to Informally Published Work on-Line

Author, A. A. (Year). *Title of work*. Retrieved from [http//www. xxxxx](http://www.xxxxx).

Mead, J. V. (2002). *Citation analysis: Investigating the quality of doctoral reference list*. Retrieved from <http://eric.ed.gov>.

25.13 Reference to a Dictionary or Encyclopaedia

Chapman, R. L. (Eds.). (1992). *Roget's international thesaurus* (5thed.). New York, NY: HarperCollins Publisher.

26.0 Construction of Reference Lists

The purpose of a reference list is to make it possible for others to retrieve the source you cited in text if they need to do so. A reference list should contain ONLY those sources actually cited in the text. A bibliography on the other hand contains sources consulted, whether cited in text or not. In the APA system only reference lists are used, not bibliographies. It is your responsibility to ensure that every source you cited in text is entered in the reference list, and those not cited are not in the reference list.

To make it possible for readers to retrieve the sources you cited, you must provide correct and complete reference data. Each entry in the reference list must indicate the author (s), year of publication, title of the book or article, name of journal, and publishing data such as city of publication, and publishers (whichever is applicable).

26.1 Order of References in the Reference List (APA, 2010, p. 181)

Arrange entries in the Reference list in alphabetical order using the surname of the first author followed by initials.

26.2 Rules to follow in Preparing the Reference List

- i. Immediately following the end of the body of your paper, dissertation or thesis must be a Reference list. The list is headed "References" and is centered.
- ii. Start the References section on a new page (except for a short paper).
- iii. Only references cited in the body of the paper must be in the reference list and any citation in the paper must be in the list. APA does not use "Bibliography" which may include sources you consulted but did not cite.
- iv. References are listed in alphabetical order according to the last name (surname) of the authors.
- v. The first line of each entry in the reference list is not indented but all other lines are indented five spaces to the right.
- vi. For each author, give the last name followed by a comma and the first (and middle) initials followed by periods. First and middles are not written in full, for example, write "Mensah, R." and not "Richard Mensah" or "Mensah, Richard."
- vii. Separate multiple authors' names with commas and the last author with the ampersand (&) rather than the word "and." For example, "Mensah, R., & Nimoh, J."
- viii. After the author(s) name(s) comes the year (in parentheses and followed by a period).

- ix. Arrange entries in the Reference list in alphabetical order, using the surname of the author (or the first author, in the case of multiple authors), followed by initials.
- x. Alphabetise letter by letter and apply the rule, “nothing precedes something” for example, Mensa, C.A., comes before Mensah, C.A.
- xi. Alphabetise the prefixes M^p, Mc., and Mac as they are written, not as if they were all spelled Mac.
- xii. Several works by the same author. If the years are different, the earliest year comes first. Use lowercase letters (a, b, c, d and so forth) added to the year for references to the same authors published in the same year. Alphabetise according to the lowercase letters.

Example: 1

Okorley, E. L. (2001).

Okorley, E. L. (2003)

Example: 2

Bednarik, R. G. (2003a). Concerns in rock art science. *Aura Newsletter*, 20(1), 1-4.

Bednarik, R. G. (2003b). A figurine from the African Acheulian. *Current Anthropology*, 44(3), 405-413.

Bednarik, R. G. (2003c). Seafaring in the Pleistocene. *Cambridge Archaeological Journal*, 13(1), 41-66

- xiii. Several works by different first authors with the same surname. Use the first initials of the first authors to alphabetise. For example

Mensah, C. L., & Okyere, A. D. (1999).

Mensah, P. K., & Dukor, C. K. (2009).

CONCLUDING REMARKS

The 6th edition of the APA style manual is 272 pages long. This guide cannot cover everything you need to know about the APA style. When you encounter peculiar situations in referencing, for example, apply the general format and use your good judgment to fit the details into the general format. On language and expression and mechanics of style, you may consult language experts and books on academic writing. If you intend to pursue a career in teaching at the tertiary level, it is advisable for you to obtain a style manual that is commonly used in your discipline.

REFERENCES

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, D. C.: Author.
- Cone, J. D., & Foster, S. L. (2003). *Dissertations and theses from start to finish: Psychology and related fields* (2nd ed.). Washington, D. C. American Psychological Association.

School of Graduate Studies and Research (2011). *University of Cape Coast (UCC). Academic policies and regulations for graduate studies, 2011-2015*. Cape Coast: UCC Printing Press.

PART A: APPENDICES - SAMPLES/TEMPLATES
SAMPLES OF PRELIMINARIES, TABLES AND REFERENCE LIST

APPENDIX A - SAMPLE OF HARD/SOFT-BOUND COVER

CSIR COLLEGE OF SCIENCE AND TECHNOLOGY

ASSESSMENT OF THREATS OF DEFORESTATION, FOREST DEGRADATION AND
THE QUALITY OF GOVERNANCE AT THE BIA CONSERVATION AREA IN THE
HIGH FOREST ZONE OF GHANA

CHARLES BREFO-NIMO

2019

APPENDIX B – SAMPLE OF SPINE

M.Sc.	CHARLES BREFO-NIMO	2019
M.Phil.	CHARLES BREFO-NIMO	2019
Ph.D.	CHARLES BREFO-NIMO	2019

APPENDIX C – SAMPLE OF COPYRIGHT NOTIFICATION

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APPENDIX D-I – SAMPLE OF TITLE PAGE (INSIDE COVER)

CSIR COLLEGE OF SCIENCE AND TECHNOLOGY

ASSESSMENT OF THREATS OF DEFORESTATION, FOREST DEGRADATION AND
THE QUALITY OF GOVERNANCE AT THE BIA CONSERVATION AREA IN THE
HIGH FOREST ZONE OF GHANA

By

CHARLES BREFO-NIMO

Thesis submitted to the Department of Natural Resources Management of the CSIR College of
Science and Technology, in partial fulfilment of the requirements for the award of Master of
Philosophy degree in Climate Change and Integrated Natural Resource Management

MAY 2019

Credit: Charles Brefo-Nimo (M.Phil. thesis, 2019)

CSIR COLLEGE OF SCIENCE AND TECHNOLOGY

THE EFFECTS OF STRIP OPENING TREATMENTS ON SURVIVAL AND GROWTH
PERFORMANCE OF FOUR NATIVE TREE SPECIES ESTABLISHED USING
ENRICHMENT PLANTING TECHNIQUE

BY

SETH OWUSU ABROKWAH

Dissertation submitted to the Department of Natural Resources Management of the CSIR
College of Science and Technology, in partial fulfilment of the requirements for the award of
Master of Science degree in Climate Change and Integrated Natural Resources Management

MAY 2019

Credit: Seth Owusu Abrokwaah (M.Sc. Dissertation, 2019)

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this College or elsewhere.

Candidate's Signature..... Date.....

Name: Charles Brefo-Nimo

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the CSIR College of Science and Technology.

Principal Supervisor's Signature..... Date.....

Name: Dr. Kwame Antwi Oduro

Co-Supervisor's Signature..... Date.....

Name: Dr. Elizabeth Asantewaa Obeng

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this College or elsewhere

Candidate's Signature Date

Name: Seth Owusu Abrokwah

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the CSIR College of Science and Technology.

Supervisor's Signature Date

Name: Prof. Mark Appiah

APPENDIX F - SAMPLE OF ABSTRACT

ABSTRACT

Several works have explored the relationship between religion and food. Such works posit that the two are undeniably close (Meyer-Rochow, 2009; Norman, 2003). Inferring from Eastern Buddhist and Christian monastic traditions, one observes the significant roles these religious centres played in maintaining the traditional foods of a people. The preservation of such foods was possible because they were often associated with religious rituals and ceremonies. In much the same way, we can ascribe similar roles to indigenous African shrines. Thus, using an interpretive paradigm mainly through observation and interaction, this study set out to investigate the role indigenous Ghanaian shrines are playing in maintaining the traditional foods of a group, using the people of Larteh in Ghana and the Akonedi shrine as the basis. The study pointed out that there is a strong affinity between religion and food and that unknown to many, the Akonedi shrine has preserved the traditions associated with food habits in Larteh because of their close connections with religious ceremonies. The study, however, also found that religion, as dysfunctional as it could be sometimes, has also contributed to the loss of some traditional foods such as aprapransa, apiti and others because they are associated with witchcraft. In view of this, it is recommended that Ghana could consider following the example of India where the International Indian Treaty Council (IITC) continues to push for indigenous foods. Besides, the study recommends that traditional religious leaders need to strengthen religious institution particularly those associated with traditional foods

APPENDIX G – SAMPLE OF KEY WORDS

KEY WORDS

Forest degradation

Forest rehabilitation

Forest strip sizes

Growth characters

Indigenous tree species

Survival

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I wish to express my sincere gratitude to Dr. Kwame Antwi Oduro and Dr. (Mrs.) Elizabeth Asantewaa Obeng, my supervisors, for their advice, excellent feedback and generous support with which they guided this work. I am indeed very grateful.

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APPENDIX I – SAMPLE OF DEDICATION

DEDICATION

To my brothers,
Daniel, Frank, Eric

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APPENDIX K – SAMPLE OF TABLES

Table 5 - *Cross-tabulation of the Type of Industry and Ownership Status of Firms*

Industry	Ownership					
	Locally Owned		Foreign Owned		Total	
	N	%	N	%	N	%
Food and Beverage	4	10.0	11	20.8	15	16.1
Drugs and Pharmaceutical	7	17.5	7	13.2	14	15.1
Garment and Textiles	7	17.5	2	3.8	9	9.7
Metal/Building and Construction	10	25.0	12	22.6	22	23.7
Rubber and Plastics	3	7.5	19	35.8	22	23.7
Printing and Paper Product	9	22.5	2	3.8	11	11.8
Total	40	100.0	53	100.0	93	100.0

Source: Field data, Owusua (2011)

Table 6 - *ANOVA Test for Work Group Perceptions of Strategic HRM Practices*

	Sum of Squares	Df	Mean Square Squares	F	Sig.
Between groups	0.953	2	0.476	0.639	0.528
Within groups	242.995	326	0.745		
Total	243.948	328			

Source: Field survey, Anapey (2010)

Table 7 - *Employees' Willingness to Accept Appointment from Other Organisations*

Work Group	False	True	Total	% of Total	
				False	True
Manual Labourer	0	13	13	0.00	4.78
Administrative	34	194	228	69.39	71.32
Academic	15	65	80	30.61	23.90
Total	49	272	321	100.00	100.00

Source: Field survey, Anapey (2010)

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LIST OF ACRONYMS

HFZ	-	High Forest Zone
FAO	-	Food and Agricultural Organization
DFD	-	Deforestation and Forest Degradation
GHG	-	Green House Gases
SZ	-	Savannah Zone
EP	-	Enrichment Planting
FORIG	-	Forestry Research Institute of Ghana
DBH	-	Diameter at Breast Height
ANOVA	-	Analysis of Variance
SPSS	-	Statistical Package for the Social Sciences

GIS	-	Geographic Information System
SE	-	Standard Error
PASW	-	Predictive Analytics Software
HSD	-	Honesty Significant Difference
RCD	-	Root Collar Diameter
H _{cm}	-	Height in centimeters
CSIR	-	Council for Scientific and Industrial Research

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APPENDIX N – MAXIMUM PAGES REQUIRED PER CHAPTER OF DISSERTATION
AND THESIS BASED ON MAXIMUM LENGTH OF WORK

Chapter Title	Percent of Main Text	Maximum Pages based on max. length of Dissertation
Chapter One: Introduction	10 %	10
Chapter Two: Literature Review	25%	25
Chapter Three: Research Methods	15%	15
Chapter Four: Results and Discussion	40%	40
Chapter Five: Summary, Conclusions and Recommendations	10%	10
	Total	100

Chapter Title	Percent of Main Text	Maximum Pages based on max. length of MPhil thesis
Chapter One: Introduction	10 %	15
Chapter Two: Literature Review	25%	37.5 approx. 38
Chapter Three: Research Methods	15%	22.5 approx. 23
Chapter Four: Results and Discussion	40%	60
Chapter Five: Summary, Conclusions and Recommendations	10%	15
	Total	150

Chapter Title	Percent of Main Text	Maximum Pages based on max. length of PhD thesis
Chapter One: Introduction	10 %	30
Chapter Two: Literature Review	25%	75
Chapter Three: Research Methods	15%	45
Chapter Four: Results and Discussion	40%	120
Chapter Five: Summary, Conclusions and Recommendations	10%	30
	Total	300