



COLLEGE OF MEDICINE
OFFICE OF POSTGRADUATE TRAINING AND RESEARCH
MASTER OF MEDICINE (MMED) DEGREE PROGRAM
RESEARCH/DISSERTATION GUIDELINES

1. GENERAL GUIDELINES FOR THE DISSERTATION

These guidelines and procedures apply to all MMED programs in the College of Medicine. The dissertation will have a **limited focus** i.e. one research question, rather than many. The following information is intended for candidates, dissertation supervisors and examiners. Candidates will need to work closely with their dissertation supervisors to focus the research proposal and to make the project manageable with limited resources.

Prerequisite Courses Prior to Conducting Research

The MMED students should attend and pass research methodology courses prior to conducting the study for their dissertation project. The courses include the basic and advanced Epidemiology/Statistics modules provided by the MPH program in the Community Health department or equivalent courses determined by the Dean of Postgraduate Training and Research Office.

The Purpose of the Dissertation

The purpose of the dissertation is to demonstrate that the candidate is able to carry out supervised research, has a grasp of the research tools in the chosen field, and is familiar with the relevant and up to date publications on the subject. It should also demonstrate that the candidate is able to communicate results and evaluate his/her own work and that of others critically.

The Standard of the Dissertation

The expected standard is that of a publishable article in a peer-review journal. The research does not have to be published (although candidates are strongly encouraged to pursue this). The literature review should be comprehensive, and must be relevant and up to date, demonstrating that the candidate is aware of the important publications.

Methods

The research should involve collection of primary data using qualitative or quantitative methods or a combination of the two, or formal review methods if it is a systematic review, or a clinical audit. This may be data from interviewing or examining research participants, or data from official publications, records, registration, or notification systems, or other databases. When the project involves primary data collection, it can be done in collaboration with other member of the research community.

Roles and Responsibilities of Supervisors

One cannot overemphasize the importance of arranging a dissertation supervisor as early on as possible. The supervisor should be an individual who can relate to your research project, be available for frequent and regular discussion and advice, and someone with whom you can develop a good working relationship.

The supervisor can be based outside the College of Medicine. In such a case, an internal supervisor will be required to serve as a guide and link to university procedures. A candidate needs to enter into an agreement with all supervisors involved and have a signed memorandum of understanding (sample in Appendix I). On the dissertation, the College of Medicine supervisor needs to be listed as the primary supervisor. Primary supervisors retain responsibilities to the candidate and the university until the dissertation process is complete. The supervisor will be responsible for monitoring the candidate's progress, arranging regular meetings with the student and responding to the all material produced by the student. Other supervisors and their responsibilities are then listed on the document and signed by all parties. It is therefore possible that a co-supervisor without ties to the College of Medicine may be more productive in assisting a candidate. This is acceptable as long as the responsibilities of each supervisor are clearly described.

In order to assist a candidate with a masters research topic the supervisor needs to hold a masters degree or higher. If the primary supervisor does not hold a higher degree, then second supervisor with adequate qualifications will need to be appointed by the Postgraduate Office. All supervisors need to be approved by the Postgraduate Committee. The student should submit CVs of supervisors to the Postgraduate Committee for approval.

2. GUIDELINES ON THE RESEARCH PROPOSAL

Prior to conducting the study, the student needs to develop a proposal detailing the proposed work. This proposal should be submitted and approved by the Postgraduate (PG) Committee and the College of Medicine Research and Ethics Committee (COMREC) prior to conducting the study. The proposal should be submitted to Postgraduate Dean's office. On behalf of the PG committee, the Postgraduate Dean will send the proposal for review by 3 senior academic members of the College. The reviewers will be given a period of 3 weeks to review the proposal and will submit comments back to the Postgraduate Dean's office. The PG Dean's office will review the comments and depending on the comments will either send the proposal back to the student for corrections or the proposal will be submitted to COMREC for review. Once approval or comments have been received from COMREC the student shall be notified immediately. In some cases, MMED projects will be conducted completely outside Malawi. In such a case, the student is still required to submit a proposal

to the PG Committee through the PG Dean's Office for review and approval prior to conducting the study. Approval should also be sought from an ethics committee where the study is being conducted. However, there be no need COMREC review if the whole study will be conducted outside Malawi.

A research proposal should have the following outline:

1. Introduction/background
2. Literature review
3. Aims and objectives
4. Methods
5. Ethical considerations
6. Statistical Analysis
7. Work Plan and Budget
8. Dissemination of Findings
9. References
10. Appendices (especially copies of data collection tools)

Introduction/background

The introduction should briefly provide the background to the research, explain what the problem is that you are going to investigate (problem statement) and indicate why this research is important/why this problem should be studied (rationale and justification for research). It should be short and capture the attention of the reader.

Literature review

It is important to demonstrate that you are familiar with the literature that has been written on this topic and to establish that your study is one link in a chain of research that is contributing to increased knowledge in your field. The major things you need to draw out of a literature review are:

1. What previous research has been done in this area (if there is a lot of literature, highlight the most important bits of previous research) – from this, you can identify what we currently know about your research topic and more importantly, what the gaps are in current knowledge (which helps justify why your research is important);
2. How have other researchers explored this research topic – i.e. you might get valuable insights into what theoretical and empirical approaches you should (or should not) use.

Two tips: Firstly, avoid writing while constantly referring back to articles or other literature – rather read the articles first making very brief notes and then write from your notes – this will help avoid the problem of plagiarism.

Secondly, avoid describing each article/publication individually – rather identify the key issues that are raised overall in the literature and use references to the literature to substantiate a line of argument that you develop about these key issues.

Finally, even if there is very little literature on the subject, you **MUST** have a literature review. At least indicate that the literature is very limited and mention what does exist – you

will be able to find at least a few articles which are related to your research topic in some way.

Aims and objectives

You need to provide an explicit statement of the aims and objectives of your research. The *aim* is a general statement on the intent or direction of the research. *Objectives* are specific, clear and succinct statements of what you will do in your research and for what intended outcome (e.g. to undertake key informant interviews to understand the context within which x policy was developed). Someone who reads the objectives should have a pretty clear idea of what you are going to do in your study and why. One way of distinguishing aims and objectives are that *objectives* are specific operational tasks that you will perform, and that these tasks need to be accomplished in order to meet the *aim*.

Some researchers, particularly in scientific fields, also state a *hypothesis* (i.e. the assumption that your research will test) for the research. Often in the social sciences, or where more qualitative work is being undertaken, researchers present a *conceptual framework*. This clarifies the definitions and theoretical concepts you will use in your research and provides a framework for the analysis of results.

Methods

The methodology section of your proposal should clearly outline what information you are going to collect, how you will collect it and how it will be analyzed. You should start the methodology section by stating the study design (i.e. is it a cross-sectional, longitudinal etc. study).

1. What information you will collect: Be explicit and comprehensive here. If you are going to use a questionnaire for data collection, you should include the full questionnaire in an appendix, but you should summarise the key variables in the methods section (e.g. demographic, utilisation of health services, geographic access and socio-economic status information).
2. How you will collect the information: e.g. conduct interviews, patient record review, questionnaire, observation etc. If you are going to collect this information for a sample of the population you are studying, you need to explain what sample size you will use and the technique you will use to sample (e.g. random, cluster, etc.)
3. How you will analyse the data: What statistical tests will you use (if any), what software will you use etc.

Ethical considerations

This is absolutely critical in the health sciences faculty. If you are conducting research at a particular health care facility, you need to indicate that you have obtained *permission* to access information and/or patients at that facility (and provide a supporting letter to this effect in your appendices). Whenever you are going to conduct interviews or administer a questionnaire, you need to show that you will obtain *informed consent* from study participants (once again you need to include a copy of your informed consent form in the appendices). You need to indicate that you have paid attention to other issues such as

language barriers – that questionnaires will be translated into respondent’s first language etc. Essentially, be comprehensive and clearly demonstrate that you have carefully thought through all the ethical implications of your research and have adequately addressed them.

Work plan and budget

While this is not essential for an unfunded post-graduate research project, it is good research practice to outline the *timeframe* for the project and indicate who will be undertaking various tasks (e.g. if you have a research assistant helping to extract data for you). It is also important to list a budget for the project because no matter how small a project, there are costs associated with it such as stationery and printing which need to be considered.

Dissemination of findings

Again, it is good research practice to indicate what you intend to do with your research findings, particularly how the information will be made available to the ‘subjects’ of your research or to other important stakeholders.

References

All literature referred to in the literature review or in any other part of the proposal must be referenced in full, using the Vancouver system. If you need ideas on appropriate referencing, look at some articles in a leading journal and follow the referencing technique they use. Alternatively, ask your supervisor for information on the different referencing systems.

Appendices

Any data collection tools, e.g. questionnaires, structured interview schedule, record review data extraction sheets, should be included in the appendices. It is also important to include a copy of informed consent forms (in all languages that will be used in the research). You should also include supporting letters from appropriate institutions here.

3. GUIDELINES ON THE PROPOSAL REVIEW PROCESS

Once the proposal has been submitted to the PG Dean’s Office, the Office will select three individuals to review the proposal. These individuals should have expertise in the proposal topic. Ideally one of the three reviewers should have a strong background in research methods. The review process should take three weeks. The reviewers are expected to comment on the following (Review Guidelines (Appendix II):

1. Is the proposal suitable for an MMED Dissertation?
2. Is the proposal feasible?
3. Is the methodology satisfactory?
4. Does it need COMREC approval?

The reviewers will send the comments back to the PG Dean’s Office. Depending on the comments, the student will either be asked to revise the proposal or the proposal will be accepted. The reviewers will indicate if the study requires ethical approval (COMREC review). It is important that the academic review precedes the COMREC review. The student will only be allowed to conduct the study once the proposal has received approval from the Postgraduate Committee through the PG Dean’s Office.

4. GUIDELINES FOR SUBMISSION OF THE DISSERTATION

A copy of the dissertation must be submitted to the PG Dean's Office 2 months before taking the MMED part II examinations. The Postgraduate Office should be informed by the student one month in advance about the intention to submit the dissertation. Supervisors will be asked by the Postgraduate Office to submit a letter supporting submission. This letter should be supplied by the primary supervisor. The dissertation must include a signed confirmation by the candidate that it is his or her own work. The dissertation must also include a page of signatures by Head of Department.

The dissertation shall be sent to the examiners with a mark page form (Appendix III). The two examiners will agree on the grades. Where two examiners have more than one grade difference in their marking, a third examiner will be asked to mark the work unseen and then all three will reach agreement on the grades.

Once the dissertation has been passed, the student is expected to arrange for 4 bound copies of the dissertation signed by the candidate and supervisors and an electronic copy. After approval by the College of Medicine Postgraduate Committee, these will be forwarded to the University of Malawi Postgraduate Committee for final approval.

This is a general guide to the format which may be modified in consultation with the Head of Department and project supervisor.

1. OUTLINE OF REPORT

a. Title Page

The report should start with the title page bearing the title of the report, as approved by the supervisor of the investigation. The title should be selected so that the "key words" which identify the subject of the study and the methods used are included. Potential readers are likely to base their decision to read the report (or not) on the title alone, and modern literature search techniques are dependent on key words. It is advisable to draft all possible permutations for the title and to consult with your supervisor to determine which is the most acceptable.

The candidate's full name and degrees (including the College or University which conferred them) should appear in the centre of the title page.

At the foot of the page should be the statement "Submitted in partial fulfillment of the requirements for the Degree of Master of Medicine in" together with the year. Centred beneath this include the name of the Department and University.

The name of the dissertation supervisor and the date on which final version of dissertation is handed in. For a sample of the title page, see Appendix IV.

b. Declaration pages

The title page shall be followed by a page indicating approval by the supervisors and head of departments (Appendix V). This should be followed by signed declaration page by the

candidate that the thesis/dissertation constitutes original work and has not been presented for any other awards at this or any other university.

1. In case where a group of students or professionals jointly execute an intervention of research project, it must be stated what part of the project was your responsibility. The reference number and date of approval of the project, or your part in it, from the CHRPG Committee.
2. The reference number and date of the approval from the Ethics Committee, where appropriate.
3. Name of journal (s) where you have submitted / propose to submit the article(s).

There shall be a second declaration page signed by your supervisors stating that the thesis/dissertation is submitted with their approval. For a sample Declaration page, see Appendix VI.

General Layout

The two declarations shall be followed by the following in this order: Abstract; Acknowledgements; Table of contents; List of tables; List of figures; List of Acronyms; Introduction; Literature Review; Statement of the Problems (Objectives and Hypothesis); Methods; Results; Discussion; Conclusion; References; Appendices as appropriate. Samples of some of the pages have been provided (Appendix VII-XI). Where sample pages are provided, you are expected to follow the working and/or format provided in the samples:

Structure

The structure of the dissertation depends on the type project chosen.

Abstract

An abstract, not exceeding 350 words, should contain a concise statement of (1) the problem under investigation (2) the methods used and (3) the results obtained and the conclusions. It is often useful to specify abbreviations for terms which will appear frequently in the abstract (sample see Appendix VIII).

Table of Contents

This should follow the acknowledgements and should contain the list of contents, i.e. the chapter or main section headings with page numbers. A list of figures and a list of tables may be included if desired. Chapters and sections may be numbered for easy reference. Where section numbering is used, the maximum number of figures should be three e.g. 3.2.1. Lengthy identification sequences such as 4.3.2.1.a (ii) do not aid the reader. Where it is desired to enumerate paragraphs within a passage the use of lower case letters or Roman numerals are acceptable BUT these subsections need not be listed on the title page.

Introduction and Review of the Literature

The introduction should begin by setting the scene of the investigation and it is customary to include a brief history of the subject, mentioning previous developments in the field or related to it. The review of the literature will vary considerably in extent depending on the subject, but should concentrate on the main relevant contributions rather than be exhaustive.

It may be possible to refer to the conclusions of a previous review of earlier work and consider only more recent papers. It should rarely be necessary to exceed fifteen pages of typescript in a project review of the literature. If the review is extensive, a discussion and summary of the literature should be included.

Statement of the problem

There should be a clear setting forth of the exact problem(s) which the investigation is intending to explore, and the scope and limitations of the enquiry should be discussed.

Methods

The precise method of exploring the problem is described in the methods, including the methods used to measure or record phenomena. The section may discuss possible alternative approaches but should not include results, other than those required incidentally to establish the method of the investigation.

Results

Under this heading the data obtained by the above methods are set forth with only that amount of description necessary to relate them to the methods previously indicated. The temptation to discuss results here must be strenuously resisted until the next section after all the data has been presented.

Discussion

Now the data can be analysed and discussed, drawing any conclusions where justified, and comparing your results with the results of other investigations. It is wise to review the study dispassionately and to anticipate criticisms which others may wish to make. It is here that comments may be made about the clinical relevance of the work.

Conclusions

It is frequently helpful to the reader, and a useful discipline for the writer, to gather together, under a separate heading, the conclusions which he may have arrived at. Remember that negative results are as important as positive results. No conclusion may be included which is not directly supported by the results obtained.

Unless it has been demonstrated that conclusions are robust enough to be applied outside the context of the sample selected and the experimental conditions used, it is prudent to preface them with a statement such as "within the limitations of the present study the following conclusions may be drawn." Recommendations for further exploration of the problem may be indicated.

References

A *consistent* referencing style should be used throughout the document. Any work without proper reference makes the unattributed sources appear as your own. This is known as plagiarism. Correct referencing gives the reader the opportunity to locate and check the source if required. There are different types of referring styles for the dissertation you should use the Vancouver style.

The Vancouver style of referencing is predominantly used in the medical and scientific fields. This is done by placing a citation number in the text. A consecutive arabic number in square brackets [] is allocated to each source as it is referred to for the first time. Each source is given only one number so that when a previously numbered reference is cited again, the original number is used. At the end of the work references are listed in their numerical order. (This also applies to references in tables and figures.) For example, the first reference is assigned the number [1]; the second is assigned number [2] and so on. Assigned numbers become unique identifiers of that source and **are reused each time that reference is cited.**

Please note that the citation number appears as a number in *square brackets ONLY* e.g. ".....surgical treatment is not necessary.[1]. You may NOT use superscripts or round brackets for citation.

It is possible to list more than one number at a single reference point. If inclusive numbers, they are joined by a hyphen; if non-inclusive they are separated by commas. This process is the same for both print and electronic sources.

Example (non-inclusive numbers)

Information has been published on treatment of breast cancer in premenopausal women. [5,12]

Example (inclusive numbers)

Information has been published on treatment of breast cancer in premenopausal women. [5-7]

Quotations

- If quoting from a source ensure quotation marks are used, along with the relevant page number(s).
- Use double quotations marks to enclose a direct quotation

Example (paraphrase)

Murtagh [14] (p.530) notes that some people experience a severe transient pain with factors such as coughing.

OR

Example (direct quote)

"Some people experience a severe transient pain with factors such as coughing" [14] (Murtagh, p.530)

If the quotation is longer than 4 typewritten lines, the material should be set off in block i.e. in reduced type and without the quotation marks. Space is often added above and below these longer quotations.

REFERENCE LIST

How to do a list of references

This contains the list of all literature that were referred to in the thesis either in the introduction, literature cited, materials and methods, results, discussions. While all necessary references should be cited, it is preferable not to use an excessively large number. The references used must be verified by the author(s) against the original documents. Any item that has a citation number in the text of the paper should be included in the list of references at the end of the paper. The references are arranged **numerically** in the same order as they appear within the text. Each “reference” appears only once in this section no matter how many times it appears in the paper

- **Note that;** The titles of journals should be abbreviated according to the style used in *Index Medicus*. Do not use boldface or underlining when typing references. Information cited from Electronic Resources, particularly the Internet, must include the **URL** and the date accessed. Print copies should be retained in case the electronic source is later withdrawn. Care must be taken that only authoritative internet resources are utilized.
- Please note that the order in which the names of the authors appear in the text of the thesis should not be different from the original literature cited. The literature cited with the altered name cannot be located with the same title. Also by changing the order of the names of the authors, credit may be given to the wrong person since the name that appears first is the senior author; i.e. the person who did most of the work
- **Do not use boldface, italics or underlining when typing references.**
- Avoid using abstracts, “unpublished observations” and “personal communication” as references. References to written, not verbal, communications may be inserted as parentheses, identified by year in the text e.g. (Harries AD, 1998, personal communication). Manuscripts accepted but not yet published may be used only if designated followed by “in press”. Information submitted but not yet accepted should be cited in the text as “unpublished observations” (in parentheses).
- While all necessary references should be cited, it is preferable not to use an excessively large number. The references used must be verified by the author(s) against the original documents. Examples of correct forms of references are provided below.

Examples of correct forms of references are provided below. Please follow the below examples if you want to avoid unnecessary delays in processing your dissertation.

Journal article, personal author(s):

1. Rose ME, Huerbin MB, Melick J, Marion DW, Palmer AM, Schiding JK, et al. Regulation of interstitial excitatory amino acid concentrations after cortical contusion injury. *Brain Res.* 2002;935(1-2):40-6.

NOTE : List all authors names up to 6 authors. For more than 6 you write the first six accompanied by et al.

Journal article, organization as author:

2. Diabetes Prevention Program Research Group. Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. *Hypertension*. 2002;40(5):679-86.

Book, personal author(s):

3. Murray PR, Rosenthal KS, Kobayashi GS, Pfaller MA. *Medical microbiology*. 4th ed. St. Louis: Mosby; 2002.

NOTE : No need for page numbers.

Book, organization as author and publisher:

4. Royal Adelaide Hospital; University of Adelaide, Department of Clinical Nursing. *Compendium of nursing research and practice development, 1999-2000*. Adelaide (Australia): Adelaide University; 2001.

Book, editor(s):

5. Berkow R, Fletcher AJ, editors. *The Merck manual of diagnosis and therapy*. 16th ed. Rahway (NJ): Merck Research Laboratories; 1992.

Chapter in a book:

6. Meltzer PS, Kallioniemi A, Trent JM. Chromosome alterations in human solid tumors. In: Vogelstein B, Kinzler KW, editors. *The genetic basis of human cancer*. New York: McGraw-Hill; 2002. p. 93-113.

NOTE : You need to include the page numbers for the whole chapter as a range.

Dictionary entry:

7. *Dorland's illustrated medical dictionary*. 29th ed. Philadelphia: W.B. Saunders; 2000. Filamin; p. 675.

Newspaper article:

8. Tynan T. Medical improvements lower homicide rate: study sees drop in assault rate. *The Nyasa Times*. 2002 Aug 12; p4.

Legal material:

9. *Regulated Health Professions Act, 1991*, Government of Malawi. Government Printers; 1992.

CD-ROM:

10. Anderson SC, Poulsen KB. *Anderson's electronic atlas of hematology* [CD-ROM]. Philadelphia: Lippincott Williams & Wilkins; 2002.

Journal article on the Internet:

11. Abood S. Quality improvement initiative in nursing homes: the ANA acts in an advisory role. *Am J Nurs* [serial on the Internet]. 2002 Jun [Accessed 12 Aug 2002];102(6):[about 3 p.]. Available from: <http://www.nursingworld.org/AJN/2002/june/Wawatch.htm>.

Book on the Internet

12. Foley KM, Gelband H, editors. Improving palliative care for cancer [monograph on the Internet]. Washington: National Academy Press; 2001 [Accessed 9 Jul 2002]. Available from: <http://www.nap.edu/books/0309074029/html/>.

Encyclopedia on the Internet

12.A.D.A.M. medical encyclopedia [Internet]. Atlanta: A.D.A.M., Inc.; c2005 [Accessed 20 March 2007]. Available from: <http://www.nlm.nih.gov/medlineplus/encyclopedia.html>.

Internet homepage/website:

14. Canadian Cancer Society [homepage on the Internet]. Toronto: The Society; 2006 [updated 2006 May 12; Accessed 12 Oct 2006]. Available from: <http://www.cancer.ca/>.

Part of an Internet website:

15. American Medical Association [homepage on the Internet]. Chicago: The Association; c1995-2002 [updated 2001 Aug 23; Accessed 12 Aug 2002]. AMA Office of Group Practice Liaison; [about 2 screens]. Available from: <http://www.ama-assn.org/ama/pub/category/1736.html>.

Example of an extract from a Vancouver style article showing how to cite and prepare your reference list:

Considerable resources are devoted to drug therapies that are aimed at modifying risk factors, such as hypertension, elevated cholesterol levels [1], and osteoporosis. For individual patients, the choice to begin preventative drug therapy should be consistent with their values and preferences. Thus, to engage meaningfully in shared decision making and to provide truly informed consent, patients need to have a clear understanding of the benefits and harms of a treatment. Strong and consistent evidence shows that stated preferences for medical interventions may depend on how the treatment effects are described. For example, the likelihood of choosing a therapy may depend on whether its benefits are presented as absolute risk reductions [2] or as losses versus gains [3-5]. These effects suggest the potential for influencing the patient's response by describing treatment effects in a certain way. We explore laypersons' responses to different ways of explaining possible outcomes of an intervention.[6]

REFERENCES

1. Getz L, Sigurdsson JA, Hetlevik I, Kirkengen AL, Romundstad S, Holmen J. Estimating the high risk group for cardiovascular disease in the Norwegian HUNT 2 population according to the 2003 European guidelines modelling study. *BMJ*. 2005;331:551.
2. Edwards A, Elwyn G, Covey J, Matthews E, Pill R. Presenting risk information-a review of the effects of "framing" and other manipulations on patient outcomes. *J Health Commun*. 2001;6(1):61-82.
3. Tversky A, Kahneman D. The framing of decisions and the psychology of choice. *Science*. 1981;211:453-8.

4. McNeil BJ, Pauker SG, Sox HC Jr, Tversky A. On the elicitation of preferences for alternative therapies. *N Engl J Med.* 1982;306(21):1259-62.
5. Ghosh AK, Ghosh K. Translating evidence-based information into effective risk communication current challenges and opportunities *J Lab Clin Med.* 2005;145(4):171- 80.
6. Halvorsen PA, Selmer R, Kristiansen IS. Different Ways to Describe the Benefits of Risk-Reducing Treatments: A Randomized Trial. *Ann Intern Med.* 2007;146(12):848-56.

Appendices

It is occasionally desirable to include in the bound Report large volumes of raw data. In order not to detract from the ease of reading and impact of a well-written Results section, it is sensible to append this material outside the standard sections of the Report where it is accessible if required. Where the volume is too great for this to be done without increasing the size of the Report to a gross extent, it is wise to consult with your supervisor to determine whether the data should be omitted or condensed.

2. LENGTH OF REPORT

The Report should be as concise as possible with proper presentation of the material and of a satisfactory literary standard. Normally, the Report should not exceed 20,000 words in length. However, the report should be over 5000 words. The limit only applies to the body of the dissertation (introduction to conclusion) and excludes content page, abstract, reference list and appendices. The finished bound volume therefore should not exceed 70 pages and it is worth remembering that an extensive report is unlikely to impress Examiners, particularly if it could have been condensed without loss of information.

3. PRESENTATION OF THE REPORT

The Report should be word processed in 12 font, Times New Roman font, with double spacing and printed on an A4 size paper using a good quality printer. No secretarial assistance is provided for students and students must compile the report themselves. The candidate will be required to submit THREE hard copies and an electronic copy to the PG Dean's Office for marking. The student should notify the office a month in advance of the intent to submit the report. After the examination the student is expected to submit a bound copy to the Library and the supervisor.

The Report should be in keeping with the following specifications:

- Size of Paper - International A4 (the size of this sheet)
- Typeface: Times New Roman, font size 12, double spacing. Do not use any other typefaces
- Use indents, spacing, headers, footers, page numbers, titles and index page, bold face, italics, and other editing facilities, where appropriate
- Make sure you have "spell-checked and grammar-checked" the document.

- Margins - A margin of 4 cm must be present on the left hand side to allow for binding. On the right hand side, top and bottom a 3 cm margin will ensure that the final guillotining of pages after binding does not encroach on the text.
- Illustrations, graphs etc. - These may be inserted in the text, or placed on the left hand pages to face typescript, in which case there should be no typescript on the reverse of the left hand page. Care should be taken to position illustrations and tables so that they are adjacent to the text which refers to them. With the new word processing capabilities it is possible for illustrations and tables to be embedded in the text.
- It is not desirable to group all the illustrations together, as is sometimes recommended.
- All illustrations, figures and tables must be accompanied by a caption which gives sufficient information for the reader to be able to understand their contents without referring to the text.
- Numbering - Right hand pages only should be numbered, in one continuous sequence from the title page. Blank pages on the reverse of illustrations should be numbered.

Binding of thesis

The student will be responsible for binding of four approved theses/dissertations. These shall be bound between boards, covered with a cloth of a colour specified by the Post-Graduate Committee. The spine shall bear the title (in abbreviated form if necessary), the name of candidate, the abbreviation for the title of the degree for which the thesis is submitted, and the year. Lettering shall be in gold or black.

Publications

The candidate shall include original papers that have been published on the work described in the thesis/dissertation, and other supporting documents, by placing them in a pocket inside the back cover of the thesis/dissertation. Items too large for such inclusion shall be submitted separately.

The manuscript left with the Postgraduate office shall be registered with the Copyright Society of Malawi in order to protect the student's rights to the originality of the material.

Supervisors and other staff will expect to be co-authors on publications for research conducted in the departments when they have contributed to the research plan, assisted practical work, or data analysis and interpretation, or helped write the paper. Additionally, if the student does not publish the work within two years of leaving the department, the supervisor shall then publish the work, including the student as a co-author.

5. GUIDELINES ON GRADING THE DISSERTATION

Dissertation Examiners

Three examiners will be selected for each candidate, two of whom will definitely examine the candidate's dissertation (one of these will be external to the College of Medicine); the third will be used if required.

The examiners will most likely have national standing in regard to the subject matter of the research. Examiners will be selected by the Divisional Head, and the supervisor. These nominations will be circulated to the dissertations committee for approval. Examiners need to be approved by the university senate through the examination office of the College of Medicine (office of the Vice Principal).

Details required for each examiner are as follows: academic qualifications, postal and physical address, telephone and fax numbers, and email address. The candidate's supervisor may not examine the dissertation. The candidate may not be informed of the identities of the examiners, nor have any contact with the examiners. Once the outcome of the dissertation has been finalized, the examiners' identities are made known if the examiners have indicated that they have no objection to this.

Once the dissertation has been submitted to the PG Dean's Office, two examiners will be assigned to mark the dissertation. The examination will include the content and the format of the dissertation. The examiners will be asked to grade the dissertation within a period of three weeks. The PG Dean's Office will indicate a deadline for the dissertation to be graded when they are sending the dissertation to the examiners, and will keep track of this. The mark page will be submitted to the Postgraduate office where a copy will be sent to the student, another kept in PG Dean's office. Depending on the grade the student will either be passed or asked to do remedial work to correct the dissertation.

Appendix I : Memorandum of Understanding Between Students and Supervisors

University of Malawi, College of Medicine

Template

Memorandum of Understanding for Thesis Master's Supervision

The following is a **template** memorandum of understanding (MOU). While it has been developed to include the experimental aspects of science and biomedical science research projects, please feel free to add items or to delete inappropriate or not applicable items. Some departments have developed their own departmental versions of the MOU and, if so, you should use that version.

The MOU should be regarded as something to help in the planning and conduct of thesis Master's study rather than as an administrative imposition. It represents statements of intent only, and the implied obligations are only what a supervisor(s) and student could reasonably be expected to meet under normal circumstances.

If the project changes substantially, a new MOU should be drawn up with the changes highlighted.

Complete the form by typing or printing. Indicate agreement with suggested details, where relevant. Hand the signed MOU to the Head of Department when all signatures are complete, and all signatories should hold a final copy of the MOU.

1 Student:

2 Course Details:

Start date: Part- or Full-time:

Expected submission date:

3 Department:

4 Title of Project:

(<20 words)

5 Brief Description of Project:

(<100 words)

6 Supervisor(s):

Primary supervisor:

Co-supervisor:

Co-supervisor:

7 What is the supervisor's contribution to **preparing the project**? Also, it is important that the respective contributions of **each** of the supervisors should be clarified here (a summary of their roles should be provided).

(Suggestion: provides student with an introductory reading list, ensures the student understands the nature of the project, discusses best way to tackle the project, provides initial training in the technical skills required, etc):

8 How many **hours per week** is the student expected to spend in the lab or field and on the project as a whole? Indicate breakdown into literature searching/reading, draft writing, bench work in lab/field, and data analysis. Part-time students should ensure that they allow for adequate blocks of time to be devoted to their studies.

Lab/field:

Literature:

Analysis:

Writing:

Total:

9 How often or when will the student have **regular meetings** with the supervisor(s)?

(Suggestion: a formal meeting at least monthly with the supervisor(s))

- 10 Who will take responsibility to arrange a **new time for missed meetings**?
- 11 How will the student access the supervisor(s) for **unscheduled meetings** or advice?
- 12 **Where will the research be conducted**, and at **what times** of the day/week/year is access to space and equipment normally available?
- Where:
- What times:
- 13 What is the **cost** of the project? Where are the funds coming from?
- 14 Where **shared or departmental equipment** is being used, who will undertake to book the equipment or otherwise ensure it will be available?
(List shared equipment)
- 15 Who will write the first draft of the application for **human or animal ethical approval**? When will the application be submitted?
(The primary supervisor must submit the final application. No work involving human or animal subjects can begin until approval is obtained. Update this section each time new applications are submitted and use this section as a record, eg approval numbers, etc)
- 16 Who will meet **obligations to funding bodies**, such as writing interim and final reports? What are the dates for meeting such obligations?

17 What will be the **role of the supervisor(s) in obtaining and analysing the data?**
(Examples: initial training; continuing active assistance; passive supervisory)

18 Outline briefly the **amount of data** that you hope to obtain for the thesis (including sample size, tests or analyses).

19 When will the student table a **written proposal** and give a **seminar** on the proposal?

Written proposal:

Seminar:

20 What model will be followed for the **layout** (chapter headings) and **style of the thesis** (hierarchy of headings, referencing style)?
(eg APA, or name a past thesis)

21 Indicate the **approximate dates of submission of the first drafts** of the Introduction, Literature Review, Methods, Results and Discussion sections of the thesis or each chapter.
(update each year)

Introduction: Literature Review:

Methods:

Results:

Discussion:

22 **How many drafts** of each section of the thesis will the supervisor(s) review?

23 When preparing the data for **publication**, who will write the first draft of the manuscript, who will be corresponding author, and what will be the order of the authors?

24 If the student is **dissatisfied with supervision** and has been unable to resolve it with the supervisor(s), who will the student consult?
(This item does not limit the right of the student to use the normal disputes procedures within the University)

25 Outline **any other issues** that are relevant to this project.

Signatures

The student and supervisor(s) have met and agreed the above issues.

Student: Date:

Supervisor: Date:

Supervisor: Date:

Supervisor: Date:

I have read the Memorandum of Understanding and am satisfied with the arrangements.

Head of Department: Date

Appendix II: Guidelines for Assessing the MMED Proposals

Proposal Section	Comments
1. Introduction <ul style="list-style-type: none"> a. Is the question scientifically important b. Does the candidate illustrate that they have a good knowledge of the field of the research project. c. Was the rationale of the study stated and does it justify conducting this study 	
2. Introduction <ul style="list-style-type: none"> a. Is the question scientifically important b. Does the candidate illustrate that they have a good knowledge of the field of the research project. c. Was the rationale of the study stated and does it justify conducting this study 	
3. Methods <ul style="list-style-type: none"> a. Study Design <ul style="list-style-type: none"> i. Is the study design appropriate 	
<ul style="list-style-type: none"> b. Study Population <ul style="list-style-type: none"> i. Is the method that will be used for selecting study subject appropriate and has it been explained clearly ii. Will the method used for selection of study participants cause bias in the results of the study 	
<ul style="list-style-type: none"> c. Sample Size <ul style="list-style-type: none"> i. Will the sample size be adequate for the study 	
<ul style="list-style-type: none"> d. Study Duration <ul style="list-style-type: none"> i. Will the student have enough time to conduct the study 	
<ul style="list-style-type: none"> e. Data Collection 	

<ul style="list-style-type: none"> i. Is the proposed method on data collection adequate to answer the objectives 	
<ul style="list-style-type: none"> f. Statistical Analysis <ul style="list-style-type: none"> i. Are the right statistical analysis methods going to be used 	
<ul style="list-style-type: none"> g. Ethics <ul style="list-style-type: none"> i. Has the subject addressed any ethical issues appropriately ii. Does this project need further ethical review by COMREC* 	
<ul style="list-style-type: none"> h. Budget <ul style="list-style-type: none"> i. Is the amount being requested for the study justifiable 	
<ul style="list-style-type: none"> i. Formatting <ul style="list-style-type: none"> i. Has the proposal been clearly presented in terms of English grammar, formatting, presentation of tables and figures 	

Appendix III: Mark Page for Dissertations

Title of dissertation	
Main supervisor	
Name and initials	
Student number	
Student signature	
Received by	
Date:	

Assessment:

Item	FORMAT		CONTENT		Available marks
	Mark	Available mark	Item Research/policy	Mark	
Length		2	Summary		10
Typeface		1	Introduction		20
Indents, etc		1	Methods/situation		20
Shaded Boxes/Headers		1	Results/Proposal		20
Graphics/picture/tables		2	Conclusions		10
Spell check		1	References		10
Grammar		2			
Total format		10	Total format		10
Total					100
Less % late submission					
Final total					100

Comments

Clear statement of problem being addressed	
adequate grasp of relevant methodological and theoretical issues, including limitations of work	
Logical presentation and sound analysis of data	
use of clear and relevant illustrations and mastery of applicable writing techniques	
Other comments	
Recommendation	Pass/fail/refer

Marked by

Date

Marking scheme

- A mark of 50% is a pass. A mark of 75% or more is a distinction.
- All assessment (examinations, in-course assessment, assignments and min-dissertation) will be based on the following general criteria:

Feedback Grade	Percent age	Grade Point	Criteria
Distinction	75 - 100	5	Outstanding achievement of distinction level. A comprehensive discussion of the topic giving all the relevant information, showing in-depth critical understanding of the topic, going beyond conventional answers, and bringing in additional ideas or material
Pass	65 - 74	4	Very good pass . A full discussion of the topic that includes all relevant information and critical evaluation
Pass	55 - 64	3	Good pass . The major points are discussed, but relevant though less important considerations are omitted
Pass	50 - 54	2	Sufficient relevant information to pass is included but not all the major points are discussed and there may be some errors or interpretation
Fail	45 - 49	1	Borderline Fail . A few points are included but real lack of understanding shown and often use irrelevant points
Fail	0 - 44	0	Outright Fail . None of the major points present, many irrelevant points included, serious lack of understanding or not submitted or submitted after deadline without extension granted

Appendix IV : Sample Title Page



UNIVERSITY OF MALAWI

College of Medicine

**Factors Affecting the Uptake of Voluntary Counselling and Testing (VCT)
Services in Mandala District**

By
Everyone Phiri
BSc (Hons) Nuclear Physics

**A Dissertation Submitted in Partial Fulfilment of the Requirements of the Master of Public
Health Degree**

December 2007

Appendix V: Sample Certificate of Approval Page

CERTIFICATE OF APPROVAL

The Thesis of Everyone Phiri is approved by the Thesis Examination Committee

(Chairman, Post Graduate Committee)

(Supervisor)

(Internal Examiner)

(Head of Department)

Appendix VI: Sample Declaration Page

DECLARATION

I Everyone Phiri hereby declare that this thesis is my original work and has not been presented for any other awards at the University of Malawi or any other University.

Name of Candidate Everyone Phiri

Signature

Date

15th December 2007

Appendix VII: Sample Acknowledgements Page

ACKNOWLEDGEMENTS

I wish to thank Dr Email Nsima my academic Supervisor, Dr Nathan Sadza my Service Supervisor and Prof Vaganov for their inputs during the preparation and writing of this dissertation. I also thank Mr Stata for his statistical support. I am also very grateful to all Department of Community Health Staff as well as my colleagues in the MPH programme for their support. My acknowledgements would be incomplete without the mention of my wife Trish and my sons Obnoxious and Velocity who have always been by my side.

(Feel free to say what ever and whoever you are grateful to – but make sure you do not go beyond 1 page – Double spacing)

Appendix VIII: Sample Abstract Page

ABSTRACT

Include the following double spaced, maximum 350 words:

Introduction
Objectives
Methods
Results
Conclusions

Appendix IX: Sample Table of Contents Page

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