



TECHNICAL UNIVERSITY OF MOMBASA

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

BIT 2221: ICT PROJECT

GUIDELINES FOR PROJECT FORMULATION

Title Page

- Research topic (Title)
- Researcher Names
- Proposed supervisors
- Institution Affiliation
- Date

The project title should be descriptive and short. It should reflect the content of the problem. Generally, the title should have a maximum of 15 words or 120 characters.

Preliminary Pages

- Declaration
- Dedication
- Acknowledgement
- Table of Contents
- List of Tables
- List of Figures
- List of Plates (if any)
- List of Appendices
- List of abbreviations and symbols (if any)
- Abstract

Abstract

Not exceeding 200 words should state the problem investigated, aims/scope, outline the methods used and summarize the expected outputs and impacts.

CHAPTER ONE

INTRODUCTION

- 1.1. Background
 - 1.2. Statement of the Problem
 - 1.3. Justification
 - 1.4. Hypotheses or Research Questions (minimum 3; maximum 5).
 - 1.5. Objectives
 - 1.5.1. Broad Objective
 - 1.5.2. Specific objectives (should be related to the hypotheses or research questions)
 - 1.6. Scope of study
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CHAPTER TWO

LITERATURE REVIEW

This chapter gives the reader an orientation to the research problem by referencing to previous concepts and researches in the area of interest, i.e., the literature review should encompass:

- Theoretical and empirical literature.
- Broad to specific literature.
- Existing information and methods used in the past to study the problem. This should include a review of previous work carried out in the area of study and elsewhere, which is relevant to the study.
- Problems and their magnitude.
- Gaps in knowledge.
- Approach: what is intended to be done to ameliorate the problems or gaps identified?

The references to literature should be limited to information that is essential to the reader's orientation. Most readers do not need long literature reviews, especially of old references if newer ones are available.

CHAPTER THREE

METHODOLOGY (MATERIALS AND METHOD)

This chapter should be sectioned as per the stated specific objectives. The purpose of the chapter is to give enough details so that a competent researcher can easily repeat the research. It is an explanation of the various strategies intended to be deployed in solving the problem and may involve the following:

- Research design: (survey, experimental, quasi-experimental, correlational. .)
 - Conceptual framework
 - Rationale for the design to be used
 - Population and Sample
How was it selected, method of selection
Population and sample size relationships
Sampling technique, Rationale for sample, size selected
 - Instrumentation
Instruments used and how they were developed
How was the content validity determined?
How was the item format determined?
Will a pilot study be conducted (how, when)?
 - Data Collection
Data sources
How will data be collected?
Who will collect the data (research assistants may not be used at MSc)
 - Data Analysis
Methods of scoring data
Scales of measurement to be used
 - Statistical tools for analysis (computer packages)
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CHAPTER FOUR EXPECTED OUTPUTS AND IMPACTS

At the end of any research one expects outputs and impacts of the research findings on society. Examples of expected outputs include:

- Increased production of milk, grain, energy, etc., to a level of say 20%.
- A 10% enhanced education levels or awareness.
- A 5% increased efficient in transport, production and communication systems.
- A more elaborate (40%) network for information transaction.

Examples of expected impacts include:

1. Increase the productivity of water resources by better understanding the complex interactions between land use and water availability and quantity.
 2. Improve livelihood security and reduce vulnerability to climate events through better planning of water resource use.
 3. Enhance the capacity of local resource users, state agencies, National Research Systems, NGOs and other stakeholders to use scientific and local knowledge in multi-stakeholder negotiation processes.
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REFERENCES

Only literature that is available should be cited. Material not available through libraries, such as personal communications or unpublished data, should be given in text as parenthetical matter. The source of data and date should be included (e.g. Kanali, C. L., Personal communication, 2011). Where possible only significant, published reference should be cited (preferably more accessible source of such publications).

Make use of APA referencing style.

In general, references in text can be cited as follows. For a single author: either Waweru (2000) or (Waweru, 2000). For two authors: either Oyier and Okeyo (2011) or (Oyier and Okeyo, 2011). For more than two authors: either Kanali et al. (2010) or (Kanali et al., 2010). For two or more articles by the same author(s) in the same year, designate them as follows: Kibe (2009a, b) or Kibe et al. (2009a, b).

Referencing should be as follows.

(a) Reference to periodical publications

Williams L A. Use of computer technology by family caregivers of patients undergoing blood or marrow transplants. *Biology of Blood and Marrow Transplantation*, 2006, 1:10-16.

Brauner N; Schacham M. Identifying and removing sources of impression in polynomial regression. *Mathematics and Computers in Simulation*, 1998, 48: 75-91.

(b) Reference to textbooks

Blanchard B S, Fabrycky W J. *Systems engineering and analysis*. New Jersey, Prentice Hall, 1998.

(c) Reference to proceedings

Rigney M P; Kranzler G A. Seedling classification performance of neural network. Paper No. 897523, St Joseph, MI 49085, American Society of Agricultural Engineers, 1989.

The references should be listed in alphabetical order by surnames of authors. Two or more articles by the same author(s) should be listed chronologically; two or more in the same year are indicated by letters, a, b, c, etc. All single-authored articles of a given individual should precede multiple author articles of which the individual is senior author. Entries with the same senior author should be organised by alphabetising surnames of succeeding co-authors and then by year, when the name is repeated exactly.

(d) Reference to website

Information on Gepasi – the website <http://gepasi.dbs.aber.ac.uk/softw/gepasi.html>

APPENDICES

APPENDIX A: QUESTIONNAIRES (if any)

APPENDIX B: COST AND MATERIAL ESTIMATES

S. No.	Items	Specifications	Quantity	@ Kshs	Amount, Kshs
1.	Printing paper	A4, high quality	5 reams	500	2,500
2.	Printer tonners		2	6,000	12,000
3.	Writing pad	A4, high quality	5	100	500
4.	Transport				10,000
5.	Research assistants		30 mandays	400	12,000
6.	Equipment				15,000
7.	Subsistence		15 days	1,500	22,500
8.					
9.					
10.					
11.					
	Total				74,500

APPENDIX C: GANTT CHART OR ACTIVITY SCHEDULE

Items of Work/Activities	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Proposal writing and submission to BPS												
Preparation for and data collection												
Data analysis												
Thesis writing												
Conferences/Seminars												
Preparing journal papers for publication												
Submission of draft thesis for review												
Submission of final thesis to BPS												
Thesis defense												
Corrections and final submission												

DELIVERABLE REPORTS

	Reports	Date (Month)			
1.	1 st Conference	7			
2.	2 nd Conference		10		
3.	Draft thesis			10	
4.	Final thesis				12