KAIRUKI UNIVERSITY

Directorate of Postgraduate Studies and Research

Research Report Template

TITLE OF THE RESEARCH REPORT (should be in sentence font)

Student Name(s):

Supervisor Name(s):

Supervisor 1:

Supervisor 2:

University Name:

Dated (Day. Month. Year)

Contents of the Preliminary pages

a) Title Page

- The front/cover/title page is arranged as follows:
- Write the title of the research report in capital letters, centrally placed, and

followed by your name, supervisor's name(s), then the following statement, systematically arranged.

A DISSERTATION SUBMISSITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR… (Insert the name of the degree) OF KAIRUKI UNIVERSITY.

- Give the year when the final correction was made in your research report.

b) Certification by Supervisor

- Should bear the words….

'It is hereby certified that the undersigned has read and hereby recommends acceptance by Kairuki University, a dissertation titled: (Insert the title of your research in CAPITALS) in partial fulfillment of the requirements for the degree of (insert the name of the Degree)'.

Full names: Signature: Date:

Supervisor: Signature: Date:

c) Declaration and Copyright

I (……. Student's name) declare that this dissertation is my own effort and original work, and that it has not been presented and will not be presented to any other University for a similar degree or any other academic award.

Being a Student Researcher, enrolled at KU, I understand that plagiarism is a serious offence, and therefore confirm that the contents of this research are purely my own production.

Signature: Date:

be reproduced by any means, in full or in part, except for short extract in fair dealing for research or private study. It may not be transmitted in any form electronic or mechanical without prior written consent from the author or the Kairuki University in that behalf.

d) Acknowledgment and Dedication

- Acknowledgments are for:

Recognition of people and institutions that played major/active roles in supporting the research work by giving advice or supervision. Also recognized are those who provide secretarial work and generally, all those who made the report possible.

- Dedication is for:

Recognition of all those who played major specified passive roles in the implementation of the work such as parents, husband, wife and children.

e) Abstract

- Abstract should be concise, clearly expressing in a few words (not exceeding 250), the essential points of the research report. It should indicate the problem statement, objectives, methodology, main findings (study outputs) and inference(s).
- Should start on a new page.

f) Table of Contents

- Starts on a page by itself
- Shows content of the report and refer the specific pages.

g) List of Tables

- Should be on a page by itself and arranged in a general format as the table of contents.

h) List of figures

- Should also be placed on a page by itself and arranged in the general format as the table of contents.

i) Abbreviations and Acronyms

- To be written on a fresh page.

j) Definition of terms

- Should be in separate page

1. Introduction

(The introduction section includes all of the sections listed below)

1.1 Background

- This section provides a general overview of the study topic/area in **1-2 pages**.
- It introduces your readers to unique issues and concepts related to the topic to be investigated (specific details about the topic are given in the section of literature review), the issues should relate to the challenges within research and what seems to be an existing problem, not just explanations.
- It describes how the research will add to the existing body of knowledge, solve a problem or influence practice. It should also briefly describe what is the contribution expected by the research?

1.2 Problem statement

- This constitutes the basis of the need for research to generate further knowledge that will contribute to existing knowledge, solve a problem and influence practice.

- The statement must be written in a way that gives an empirical basis to describe the situation and clearly specifies the gaps in existing knowledge and/or controversy and inconclusive evidence. What should be the ideal and what is the current situation or practice? At this point the investigator defines the objective of study and conveys the questions or broader issues motivating the research. A logical sequence for presenting the statement would be:

    - What is the problem that necessitates the conduct of the study as reflected in the study aim and title? Magnitude, frequency and distribution of the problem:

an overview of geographical areas and population groups affected by the problem (Do not provide extensive global literature in the problem statement). Should be based on researchers own words explaining the gap, its significance or need to address it. Probable causes of the problem: What is the current knowledge of the problem and its causes? Is there consensus? Is there controversy? Is there conclusive evidence?

- Indicates the importance of the problem in health care/medical practice/ public health and what would be the consequences of not solving the current problem.
- Identifies the specific gap in the knowledge: What remains to be answered? What is the knowledge gap that is going to be addressed by your study?

- The discussion in this section should not exceed one page; ideally should focus on the country where the study is done, so the existing problems can be answered by the current research.

1.3 Rationale/ Justification

This describes the type of knowledge expected to be obtained upon completion of the project and the intended application of the results. It should align with the specific objectives and should indicate the strategy for disseminating and implementing the research.

The justification should answer questions such as:

- How does the research relate to the national priorities or those of the Region/district or those of the facility?
- What knowledge and information will be obtained?
- What is the ultimate purpose that the knowledge obtained from the study will serve?
- How will the results be disseminated?
- How will the results be used and who will be the beneficiaries?

The justification, which can be included as part of the statement of the problem or in a separate section, should make a convincing argument that the knowledge generated will have a practical value.

1.4 Research questions/ hypothesis to be tested (hypothesis is only for quantitative studies)

The research questions are linked to the specific objectives.

The Hypothesis (if any) is linked to the study title. Descriptive studies do not require hypotheses. Descriptive studies are also known as hypothesis generating studies. Analytical quantitative studies require hypotheses which could be simple or complex. A simple hypothesis predicts the relationship between a single dependent variable and a single independent variable, whereas complex hypothesis predicts the relationship between two or more independent and dependent variables. Hypothesis is only for quantitative studies.

1.5 OBJECTIVES:

1.5.1 Broad Objective(s)

It is linked and matches to the study title and is given as a general statement in an active verb: To determine, to assess etc.

The objective should specify what kind of knowledge the study is expected to obtain. It should give a clear notion of what is to be described, determined, identified, compared and, in the cases of studies with working hypotheses, confirmed.

Example

1. To verify the differences in acute respiratory illness among children under 5 when they participate in the nutritional supplementation program as compared to those who do not participate.

1.5.2 Specific objectives

(The objectives stated must be specific, measurable realistic and attainable within the given time frame). Assess whether each of your objectives is ***SMART.***

They are a preliminary view of research design. Each specific objective is designed to measure the research questions listed (an average of four is within range).

Examples

1. *To estimate the incidence of acute respiratory tract infection (ARI) among children covered by the nutritional supplementation program and the incidence of ARI among those receiving standard nutrition.*
2. *To determine the existence of statistically significant differences in the incidence of ARI in the group of children who received standard nutrition and the group receiving nutritional supplementation.*
3. *To identify the protective factors that help to explain the differences in the incidence of ARI according to the type of supplementation received.*

2. LITERATURE REVIEW

Should be empirical (based on scientific testing/practical experience) with focus on research problem and where necessary theoretical review. How are the possible answers to the question explained and defended? What are the assumptions? What are the relationships? What are the working hypotheses?

- Each review section must correspond with each specific objective. It is advisable to maintain subheadings standing for each objective.
- Start with one objective then proceed to the next. (Do not start with for example: objective one then go to objective two, then go back to objective one).
- For each objective establish the relationships (identification of the relationships between the independent variable and the response variables). Describe the Global, Regional and Tanzanian perspectives as regards to **what <u>is known</u>**, how has it been explained? Are the results conclusive? What are the bases for the question? concerning issues reflected in the objective.
- Tail-off with a knowledge gap to be addressed by that objective.
- Do not replicate other people's findings in your literature review. Just pick the knowledge generated by those studies. ***NOTE: Your voice has to be apparent in the whole review***.

- As much as possible use present tense because you are presenting **what is known and unknown at present.**

  Plagiarism is a punishable offence and must be avoided (there are tools to check the originality of submitted proposals).

3. METHODOLOGY

(Provide clear descriptions of the scientific methodologies that will be used in this research, indicating site, population, statistical methods, designs and analysis to be used etc.)

3.1 Study Site

Reasonable description of the site social demographic characteristic, health system and important epidemiological characteristics.

3.2 Study design(s)

(Summarize the study design and its justification in few short sentences. The type of study and its design should be decided based on its appropriateness to the objectives, the availability of resources and in some cases, ethical considerations.) Observational—descriptive or analytical OR Experimental interventional.

a) Was it a qualitative, quantitative, or mixed? What was your rationale?
b) What type of specific design was used? What was your rationale?
c) What specific research methods was used (e.g., control group, comparison group, survey, interviews, etc.)? What was your rationale?

3.3 Target and study population

Indicate from whom the data was collected (study population);Selection of the study population should be guided by the research question.)

3.3.1 Eligibility Criteria

- Give details of those who were eligible to participate (Provide **inclusion criteria)**

- Among those who were eligible give details of those who were excluded because they possessed other features which would interfere with the relationship between the dependent and independent variables (**exclusion criteria**).

(The inclusion criteria should be determined by scientific and ethical criteria, rather than convenience. Exclusion purely on the basis of age should always be avoided.)

3.4 Sample size determination

- How many people or study units were involved?
- In quantitative approaches, indicate sample size and calculations and justifications.
- Qualitative studies give a forecast of how many and what compositions of participants (although the principle of saturation applies).

3.5 Sampling procedures

(The Statistical sampling methods should be described.)

1. Describe your study population and proposed sample (expected size, demographics, etc.)
2. How were the sample selected?

3.6 Data collection and management procedures (collection techniques and instruments, processing, validation)

3.6.1 Data collection methods

- Give details of how data was collected.
- Give all the details to enable somebody who did not participate in writing the proposal to collect data.
- What resources were required to accomplish the study, including a description of those who collected the data.

3.6.1.1 Investigation tools, validity and reliability issues

Measurements

- Describe the instruments and/or procedure (e.g., interview questions and settings) you used to measure the variables or capture a participant's experience.

- If you select an existing instrument, be sure to provide information on strategies used to demonstrate validity such as reliability, validity, number of items, how they are scored, what the scores mean, who the items were developed for, etc. Cite and provide reference for the existing data collection tools and show if the instrument is permitted to be used or it's free.
- For newly developed instrument student must describe how the reliability and validity of the instrument was ensured.
- Include a copy of any instrument you used and explain how it was scored and whether there were any norms or cutoff scores.
- If you used a behavior counting procedure, be sure to provide a rationale.
- If your study was qualitative, you must provide your interview guides, including prompt questions and outline strategies used to demonstrate trustworthiness. The respective tools should be included in appendices not here.

Laboratory Procedures

- This section must describe in detail the procedures used to control the factors that undermine the validity or reliability of the results. Procedures or techniques that are standardized and/or documented in the literature should be described briefly and references should be given to sources where the details of these procedures and techniques can be found.

The protocol should have an annex containing the instruments that were used (Kit inserts, questionnaires, interview guides, Moderator guides, registration forms, etc.) and CVs.

3.6.2 Data management procedures

State what procedures were used for data management, including data entry, data coding, monitoring and verification.

Describe the administrative and computer software packages to manage data (SPSS or Stata for quantitative and Nvivo, MAXQDA for qualitative research) to be used, the type of staff available and whether any training was needed to facilitate data management.

Explain how you ensured confidentiality of the collected data in terms of access in both quantitative and qualitative research.

3.7 Derivation of study variables

- In each objective identify what was measured (variables).
    - Give operational definitions of all variables (how you measured them).
- List independent and dependent variables- be guided by your objectives.
- Qualitative approaches also give details of what was measured and how it was measured.

3.8 Data Analysis

- Provide an analysis plan corresponding to each specific objective and study variables.

Each variable should be clearly explained how it was measured. e.g. when using Likert scale what was the cutoff point and justify why. Provide references as well if the cutoff point was used in previous research.

In qualitative specify the methods of analysis with reference and explain on the steps which were used.

- Both quantitative and qualitative data require a description of the data analysis plan.

3.9 Ethical considerations (matters for Institutional Research Ethics Committee KU and local authorities)

When the research involves human subjects, this section should explicitly provide for the following aspects.

- The known benefits and risks or disadvantages for the subjects/participants in the study.
- Exact description of the information delivered to the participants of the study and when it was communicated and how (orally or in writing). Examples of this information include: the objectives and purposes of the study, any experimental procedures, and known short- or long-term risks, possible discomforts, expected benefits of the procedure used, duration of the studies, alternative methods for treatment if the study was a clinical trial, suspension of the study if a finding was made of negative study and the freedom of subjects to withdraw from the study whenever they want.
- When appropriate indicate any special incentive or treatment that subjects received through their participation in the study. If there is any type of remuneration specify the

amount, method of delivery time and reason why payment was required.

- List the drugs, vaccines, diagnoses, procedures, or instruments used, whether they were registered, unregistered, new or currently in use in the country.

Moreover, responses are required for other ethical aspects such as:

- In studies where personal information was obtained from the subjects, indicate how the information was confidential.

- For studies involving the participation of subjects in an experiment (experimental or quasi- experimental trials, studies of interventions, etc.), information should be provided on the free and informed consent of the participants and the strategy that was used to obtain it.

- Brief explanation of how the study participants were protected especially the vulnerable groups e.g. the children, the elderly, physical challenged, and pregnant women. Justify the non-inclusion in the study group, if appropriate, of women (of any age), an ethnic minority, racial group, etc.

- Brief explanations on how children under 18 years signed assent forms when involved in the research.

- When appropriate, indicate how the appropriate balance of the two sexes was ensured in the study groups. In addition, indicate, when appropriate, how gender inequities and discrimination and disadvantages might have affected women's involvement in the research.

- When studies involve human subjects, ethics clearance should be sought from IREC (*irec@ku.ac.tz*). In cases where foreign investigators are involved or the study is a clinical trial, ethics clearance should be sought from NIMR and permission from COSTECH.

- In case of clinical trial ethics clearance should be sought from NIMR.

4. Results

- This section is the presentation of data after analysis. Results are presented in the sequence of the stated specific objectives and best presented by tables and figures.
- Findings start by reporting study population profiles where the first table gives the distribution of the study population by demographic characteristics (where necessary, plus, other baseline data important for that study).
- Each table must have a number and title/ heading at the top, reflecting contents.
- Every table is followed by respective or corresponding explanation (brief).
- Explanation text only draws attention to key findings in the table. The table and brief explanation must shorten the length of the text e.g. instead of 2 pages of results the presentation appears on 1 page.

5. Discussion

- Discussion is a commentary on the findings of the study, representing the researcher's views to reviewed/existing literature on the problem studied-depicting
- A discussion highlights points of agreement and those of departure from his/her findings.
- A discussion is neither a defense of the revealed results by the study nor a defense of expected results of the proposal.
- A discussion validates the findings of the study and reiterates the possible contribution by the research findings to the pool of knowledge on the problem (i.e. importance of your findings and their clinical/policy implications)
- Highlight and explain unexpected findings
- State possible study limitations, how these were mitigated and possible effects on the interpretation of results.

6. Conclusions and Recommendations

- Conclusions are simply a summary of validated (In discussion) findings *(write a brief statement of the major/key findings and implications of the study)*
- Do not include new information in the conclusion (that was not part of your findings)
- Recommendations are made strictly based on validated findings (in relation to policy, practice, and future research).

7. References, using standard format (Vancouver style)

- These have to follow KU guidelines (Vancouver).
- Reference manager tools like *Endnote*, *Zotero*, *Mendeley* etc. are highly recommended to be used (You may contact your librarians for guidance).
- References should be current *(less than ten years, although historical perspectives and classic references on the subject may also be required).*

8. Work plan/ GHANNT chart

Give realistic milestones of your study in line with allowable time in your curriculum. (Identify project activities and the tasks that will be performed to complete the work in the following format.)

Task	**Time 1**	**Time 2**	**Time 3**	**Time 4**
Activity 1				
Activity 2				
Activity 3				
Activity 4				
Activity 5				
Activity 6				

9. Budget

Provide a breakdown of your budget and justification for each budgeted item.

For example.

BUDGET

Expendable supplies	**Cost(Tshs)**	**Quantity**	**Cost (Tshs)**	**Justification**
Equipment (specify the items)			Sub-total	
Documentation			Sub-total	
Local travel			Sub-total	
Extra Personnel			Sub-total	

Other costs *(clearly specify)*			Sub-total	
Miscellaneous			Sub-total	
TOTAL PROJECT BUDGET (TSHS/US$)				

10. Appendices

10.1 Investigation tools: Investigation tools may include the following depending on the study approaches:

- Questionnaires should be in both English and Swahili language
- Clinical survey forms
- Data extraction form for data obtained in patients' files
- Individual Interview or FGD guides, Observation checklist etc. in both English and Swahili language

10.2 Consent/ assent forms

- KU -IREC consent form should guide the main issues to be reflected in your study (should be in both Swahili and English language).

10.3 Permission letters: a letter that was sent to the study site(s); permission letter approving data collection activity from the study site authority.

10.4 Plagiarism report generated from Turn-it In.

NOTE:

A guide on typing:

(a) The research proposal/report must be printed on good quality A4 paper. This is to ensure clear copies. Typing must be **1.5 spaced**.

(b) Except on the title page, **fonts in the text should be 11 points** (**Tahoma**). Alignment of the text in the body of the research proposal/report shall be full justification.

A guide on Pagination:

(a) Paginate the preliminaries (portions preceding the introduction) in lowercase

Roman numerals ("i", "ii", "iii", etc.) beginning with the title page.

(i) Title or cover page

(ii) Certification

(iii) Declaration and Copyright

(iv) Acknowledgements

(v) Table of contents

(vi) Abstract

(vii) List of Tables

(viii) List of Figures

(ix) List of Appendices

(x) Abbreviations

(b) Number the pages of the body of the research proposal/report in Arabic numerals

("1", "2", "3", etc.) consecutively throughout.

(c) The page numbers should appear just below the center of the lower margin.

- **Margins**

(a) The left-hand margin must be 3.0 cm from the left edge of the paper.

(b) The right-hand margin is 2.5 cm from the right edge.

(c) The top margin is 4.0 cm from the top of the page.

(d) The bottom margin is 2.5 cm from the bottom edge of the paper.

Front and Title Pages

For samples of both pages please refer to Appendices. However, the following information

is important in the preparation of the pages:

The front (title) page must be arranged as follows:

(a) Write the Main Title of the research proposal/report in CAPITALS, centered and in

14 POINTS BOLD FONTS. A sub-title should be in Capital and Small letters.

(b) Insert your name at the center of the title page. The name should be in Capital and Small letters, 12 points bold.