How to Write a Successful Doctoral Research Proposal: The Makerere Format

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1.0 Introduction

Writing and submitting an acceptable research proposal is not a simple task, and can be an exasperating experience even for the most accomplished researcher. For the novices in research (many doctoral students are), producing a proposal can be a very frustrating and academically challenging exercise. In the College of Education and External Studies (CEES) at Makerere University for instance, the author is aware of some doctoral students who have spent over 10 years on their PhD programmes without submitting any acceptable dissertation or thesis proposal. Such students, of course, are not permitted to commence writing their doctoral dissertations or theses until they have written and submitted their research proposals. Most often, stories are abound on campus why such students delay to produce their proposals. Many claim that "so and so was delayed for several months or even years by a malicious supervisor or administrator, or such and such a student had to change the supervisor because the supervisor had started to demand for sex or money, or …". The stories are usually endless! However, amidst these accusations and counter-accusations (because the supervisors also accuse the students of several vices), there are still a few students who write and submit their dissertation or thesis proposals within the recommended time (for example, the author took five months to write and submit his proposal for review in the same University). In fact, there are even a few cases, where some students produce their proposals and final dissertations well before the stipulated time. This raises concern and makes us ask: (i) how do those students who successfully write their proposals make it? (ii) What do they write that others do not? (iii) What is a research proposal, and how important is it in a study? And (iv), what are the key elements of a research proposal and what does the Makerere University's guidelines say about proposal writing? In this paper, the writer attempts to address some of these issues basing on his experience as a former doctoral student (now staff) of Makerere University. But first, what is a research proposal, and how important is it?

1.1 What is a Research Proposal?

Literally, the word 'proposal' means a suggestion put forward by someone for consideration or discussion by others - like in the case when someone makes a marriage proposal to you. Applied loosely to research, a proposal is a suggestion or plan by someone (the researcher) indicating a researchable problem and how s/he intends to resolve it. However, technically, a research proposal is a written presentation of an intended research specifying the problem, purpose, scope/objectives, methodology, references and the budget of the study (Amin, 2003; Makerere University, 2011)). It is an overview of the intended research describing the proposed project: its design, financial requirements and its potential contribution to the existing body of knowledge (Oso & Onen, 2009). As such, a well-prepared proposal should act as an efficient and effective guide to the researcher while conducting his/her study.

1.2 Role of a Research Proposal

According to Wong (2002), most students and beginning researchers do not fully understand what a research proposal means, nor do they understand its actual importance. This partly explains the delay and the 'I-don't-care' attitude some students exhibit during proposal writing. Yet, to put it bluntly, one's research is only as good as his/her proposal. This implies that every research proposal must convince others that the writer of the proposal has a worthwhile project and also possesses the required competence and work-plan to accomplish it. For doctoral students, dissertation or thesis proposals are very important in pursuit of their degree qualifications. In fact, McGranaghn (2004) points out that in such a case, a proposal is in effect an intellectual scholastic (not legal) contract between the student and his/her Research Committee. McGranaghn believes, and rightly so, that since the proposal specifies what the researcher wants to do and how s/he would do it, in approving one's proposal, the Research Committee - in the case of Makerere University, the Higher Degrees Committee at a faculty or school, in effect is giving their best judgment that the approach to the research as proposed by the researcher is reasonable and likely to yield the anticipated results. This therefore means, that being clear about what one wants to do, why it should be done, how it will be done and the results expected from the study right from the beginning, is very crucial for any doctoral student who intends to graduate on time.

Generally in research, proposals serve many different purposes. But for doctoral students, proposals are used:

(i) To convince other people and the supervisor(s) that the researcher has a worthwhile project to study;
(ii) To demonstrate the student's expertise in his/her area of study;
(iii) To demonstrate the student's competency in undertaking an intended study;
(iv) To produce a roadmap that the student will follow during his/her dissertation project;
(v) To establish a point of departure that will be flexible enough to withstand revision in light of the inevitable "surprises" that will crop up as the student progresses through his/her research programme; and
(vi) To help in making admission or progression decisions on the candidate (student). For instance at Makerere University, a student will not be allowed to proceed to write his/her doctoral thesis or dissertation until an acceptable research proposal is submitted.

1.3 Types of Research Proposals

Broadly, research proposals can be categorized into two types based on the research paradigms; namely: quantitative and qualitative proposals. A quantitative proposal is a proposal that describes an inquiry informed by the philosophy of logical positivism and one that seeks to understand the world in quantitative and numerical terms. Such studies are more dominant in today's graduate work than ever before. On the other hand, a qualitative proposal is one which describes any inquiry that seeks to understand the world within the total context of what creates meaning out of people's lived experiences (Amin, 2005). This type of proposal thus describes a study which findings are generally expressed in qualitative and categorical terms.

In practice, the writing of quantitative and qualitative proposals is not exactly the same since the two research paradigms have differences right from conception, design, actual study and data analysis techniques. A researcher needs to be clear of the research paradigms s/he intends to operate in when developing his/her proposal. Amin (2005) emphasises that

quantitative studies are theory-based and should be built on clearly specified and detailed questions that will be answered or on hypotheses that are testable. Meanwhile, qualitative proposals commonly describe inquires which may not be grounded in any theory, but which at the end of the study, can produce a theory (or theories). Thus the conception, design and language in which both quantitative and qualitative proposals are presented often differ.

1.4 Structure of a Research Proposal

A research proposal is basically made up of three sections: the preliminaries, text and the appendices. Figure 1 illustrates the major features of a research proposal:

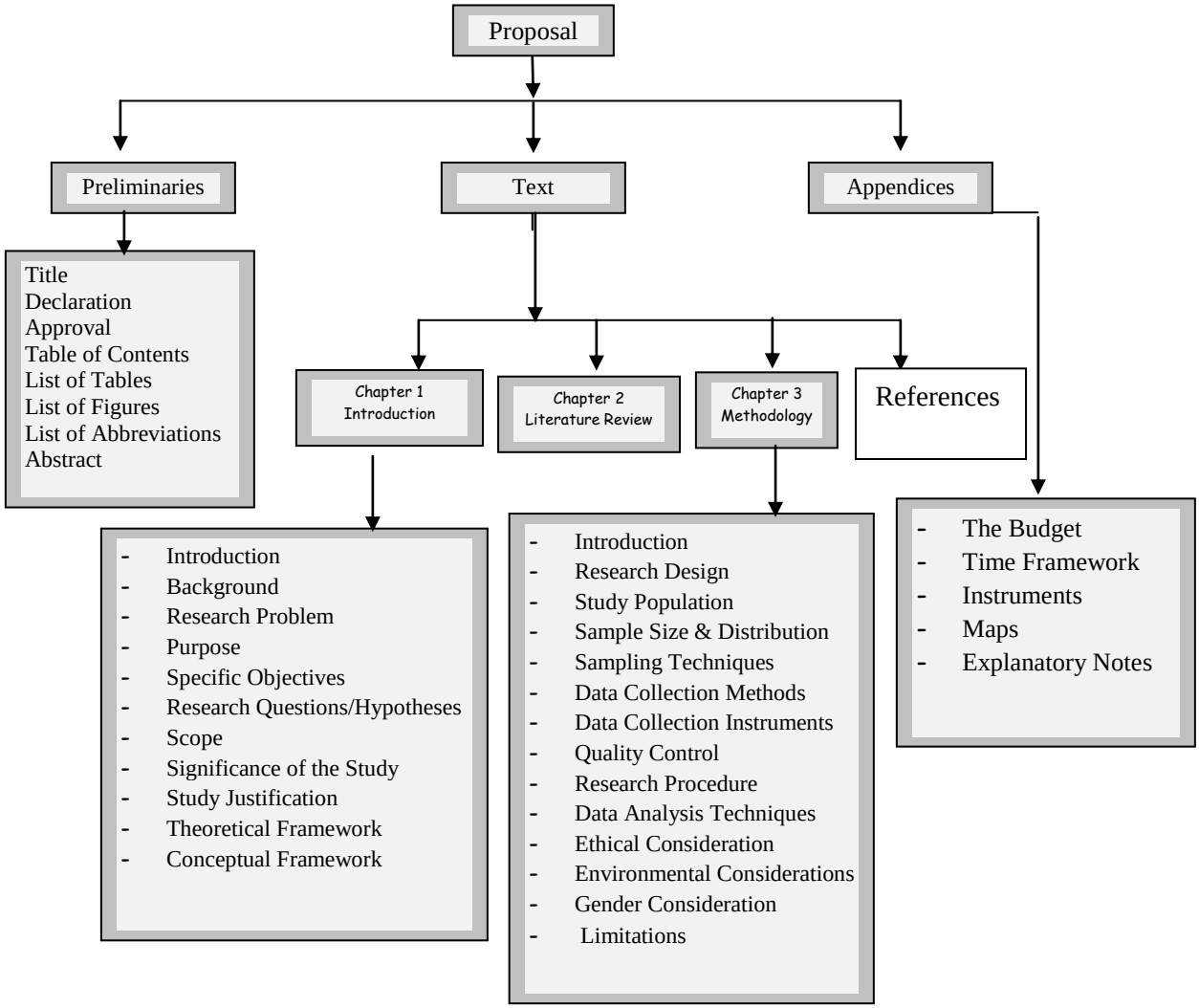

Figure. 1: **Elements of a Research Proposal** ***Source:*** **Adapted from Oso & Onen (2009)**

According to Figure 1, the preliminary section of the research proposal generally contains the: (a) Title/topic (b) Declaration (c) Approval (d) Table of Contents (e) List of Tables (f) List of Figures (g) List of Abbreviations and Acronyms, and (h) Abstract. However at Makerere University, the existing guideline does not emphasise the inclusion of all these 'items' that could be presented in the preliminary section of a research proposal, except the title page. As a result, different units of the University have adopted different approaches of preparing this section of the proposal. For instance at the East African

School of Higher Education Studies and Development (EASHESD), students are required to include the: Title page, Declaration, Approval, Table of Contents, List of Tables and List of Figures, but without the Abstract. In some schools (or faculties), however, the Approval and Declaration pages are ignored; thus the supervisors sign to approve the work on the title page where their names are placed below the candidate's name, This, of course, is not the better option. The candidate is however advised to follow the guidelines prescribed by his/her own school (or faculty) since the University's regulations provide for reasonable alterations to the University-wide format.

The second part of the research proposal is the text. This section is divided into: Introduction, Literature Review and Methodology. According to the Directorate of Research and Graduate Training of Makerere University (2011), the three sections form Chapters l, 2, and 3 respectively in both proposal and final dissertation or thesis. However, at the end of Chapter 3, the researcher is required to present a list of references before bringing in appendices.

Finally, the last part of a research proposal is the appendices. This section is comprised of relevant information materials such as: the budget, time-frame, data collection instruments, and other essential documents, maps, *etcetera,* that are difficult to include within the text but which could aid the reader understand better what is contained in the text.

2. PRELIMINARIES

2.1 Title/Topic

A research topic is the subject to be researched, analysed and interpreted. It may arise as a problem to be solved or as an issue to be better understood, or it may arise as conditions which the researcher wants to improve, or questions for which immediate answers are needed. A good research topic should focus the direction of the research and position the central concept(s) for the researcher at an early stage. A research title is the thematic statement of what the research is all about. It is a phrase that describes the subject, object (or variables), scope and the population of the study in a brief statement or phrase of about 12 words without detailed wording and unnecessary explanations or addenda (American Psychological Association [APA], 2012). However, according to Makerere University (2011, p.2), the title "should accurately reflect the scope and content of the study. In addition, it should be concise, simple and catchy in not more than 20 words". The topic is always written on the first page (generally referred to as the title page), which is usually not paginated. The title page should have: (i) the topic of the research (ii) full names of the researcher (iii) the purpose for which the proposal is intended, and (iv) date (month and year) when the proposal is concluded. At Makerere University, though the guidelines recommend for the use of APA (6^{th} Edition) style of thesis and dissertation writing, the University provides a different format for preparing the title page. In fact, the Makerere's format ignores the page header and running head which APA emphasises, and instead requires the student to include on the title page: the University's name and logo (which some colleges and schools ignore), the study title, name of author; purpose and finally, date of publication (Makerere University, 2011). In addition at Makerere, the title page is produce in upper case rather title case format which APA (2010) recommends. Figure 2 illustrates the Makerere's format of preparing the title page:

UNIVERSITY LOGO

RESEARCH TOPIC

BY-LINE

i AUTHOR(S) NAME(S)
i PREVIOUS QUALIFICATIONS

A PROPOSAL SUBMITTED TO … IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE/DIPLOMA OF (---NAME OF THE DEGREE/DIPLOMA---) IN (---AREA OF SPECIALIZATION---)

DATE OF SUBMISSION

MAKERERE  UNIVERSITY

EFFECT OF REMUNERATION ON MOTIVATION OF DIPLOMA TEACHERS IN PRIMARY SCHOOLS IN UGANDA

DAVID MUSOKE

Bed; MEd (Mak)

A PROPOSAL SUBMITTED TO THE DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION OF MAKERERE UNIVERSITY

JANUARY 2014

Figure 2: **Title Page According to the Makerere Format** ***Source:*** **Adapted fromMakerere University (2011)**

It is important to understand that different institutions have different formats for writing their dissertation or thesis proposals. Therefore, before a doctoral student embarks on writing his/her research proposal, s/he needs to consult the relevant authorities of his/her institution for the format to use.

2.2 Declaration

In this section, the student 'swears' that this work is his/hers and as far as s/he knows, the work has never been submitted for any academic award anywhere else. Usually, the statement goes like this: "I declare that this proposal titled "….".is my original work and to the best of my knowledge, it has never been submitted to any university or institution for any academic award whatsoever." Below this statement, the student puts his/her name, signature and the date when this 'vow' is made. It is aimed at discouraging plagiarism in academia.

2.3 Approval

This section contains a declaration by the supervisor(s) that s/he has supervised the writing of the proposal and recommends it for submission. Usually it goes with a statement like: "This proposal titled "…" has been submitted with my (or our) approval as the University's Supervisor (s). Names of the supervisor(s) should be put below this declaration and the space where s/he can append his/her signature and the date when this approval is made.

2.4 Table of Contents

This is a list of headings and sub-headings and their corresponding page numbers. The section is important in guiding the reader where contents of particular sub-headings are placed in the proposal. The table of contents must be written according

to an approved format. The researcher should note particularly the indentation of the sub-titles under each major title. The wordings of sub-titles in the table of contents must match the sub-headings contained in the text. It is better to generate the table of contents automatically.

2.5 List of Tables

This shows the list of tables in the proposal and their corresponding pages. The titles of the tables must be clear and descriptive. They should be progressively and consistently numbered throughout the proposal.

2.6 List of Figures

This shows caption of illustrations used in the proposal and their corresponding pages. The same conditions as for list of tables described above should apply.

2.7 List of Abbreviations and Acronyms

In this section, the researcher presents the list of abbreviations or acronyms as used in the proposal. The title of the section should indicate so. This may include list of symbols and scientific terms that are used in the text. Overall, pagination of all the preliminary pages up to this point should be in lowercase Roman numerals.

3. THE TEXT

The text section is divided into three chapters and the list of references. Each chapter has several sub-sections within it. The chapters and their sub-sections are described herein according to the order in which they should appear in a proposal. First is Chapter 1. At Makerere University, the title of Chapter 1 is **Introduction** (Makerere University, 2011). The purpose of the **Introduction** is to provide a basis for the study. It provides the background and the setting required to put the research problem in proper context. The following sub-sections are usually included in the **Introduction** (chapter 1) of a research proposal at Makerere University.

3.1 Introduction

According to the APA editorial guidelines which many universities, including Makerere University have adapted in guiding the writing of dissertations and theses, each chapter requires an introduction. This implies that despite calling Chapter 1 **Introduction,** there is need to introduce the chapter. In the introduction to **Introduction,** the following are included: first, an opening remark in which the researcher draws the attention of the reader to the importance of the issue(s) under investigation. This remark may be based on what other scholars have stated or what the scholar believes in, but they should be statements describing some kind of 'ideal' situations or what is difficult to challenge. Second, the researcher should point out that what is prevailing in his/her area or context of research seems different with the 'ideal or expected' situation. In other words, the author creates and problem scenario. Third, the researcher points out what this study will address or focus on, and finally, the author alerts the reader of what this chapter will entail. According to Cresswell (1994), these opening remarks are essential in scholarly writing. He refers to them as a "narrative hook" because they are statements aimed at attracting and retaining the reader to one's work.

3.2 Background

The background introduces the status and the rationale of the study. According to the Makerere's guidelines on proposal writing, this section "provides evidence and conditions of the existing situations highlighting the gap(s) to make the reader feel the urgency of the problem, the need to study it in order to solve the problem or contribute to its solution" (Makerere University, 2011, p.2). The section is thus used to portray the history and the character of the problem, or issues at hand, and tries to expose the facts that surround the problem that must be tackled through undertaking the study. Cresswell (1994) also suggests that the background to the study should be introduced with a set of statements relevant to the theme being studied which attracts the reader to the work.

Generally, the statement of the background has four main dimensions: the historical, theoretical, conceptual and contextual perspectives. The first to be written is often the historical dimension. In this section, the researcher provides 'a narration of the history of the phenomenon under investigation'. As a result, the researcher tells the reader what was the 'conditions' like in the past; and what is it like today? At this point, the researcher needs to focus more on the problem (or dependent) variable rather than the explanatory (or independent) variable. In the second part of the historical background, the writer reflects on the work of other researchers in this field. It is important do this because any title in research, in most cases, is not being done for the first time by the researcher. Thus, issues that have been discovered or believed to be true about the topic should be summarized in this section as suggestion that the issue at hand has developed through significant stages that bear on the present study. However, the researcher should 'undermine or down-play' the contributions of the previous scholars while justifying the need for the current investigation. The historical background can be approached from the global, regional to the national (or contextual) or local perspective (Mugenda & Mugenda, 2003).

The second part of the background is the theoretical basis of the study. In this section, the researcher describes the theory (or theories) on which the study will be based (or anchored). It describes "any" discovered relationships between the variables in the study and the theory to be used. The researcher should briefly describe the theory (or theories) and justify how it relates to the variables under investigation. It is basically a description of the relationships between the variables in ideal situations.

The third dimension of the study background is the conceptual background. In this section, the first thing the researcher can do is to identify the key concepts s/he is dealing with in the study. Second, the researcher can proceed to look for the literal meanings of each concept before looking at what experts in his/her field take the concepts to mean. Thereafter, the researcher will proceed to specify what s/he means when s/he uses particular concepts (or terms) in their study in order to avoid individuals misinterpreting or failing to understand what they are saying. Finally, the researcher should end with operationalisng the concepts (or variable). Operationalisation is the process by which the researcher defines a concept or variable in terms of its dimensions and indicators. Dimension in this regard, is the specifiable aspect of a concept while indicator is the observation that we choose to consider as a reflection of a variable we wish to study. If a researcher does not conceptualise his/her study variables well, it will negatively affect the entire research project because the derivations of appropriate objectives, research questions or hypotheses emanate from appropriately conceptualised study variables.

The fourth and the last dimension of the research background is the contextual perspective to the research problem. In this section, the researcher describes the problem in the context of the current study while pointing out the gaps that need to be filled by the study. The section is presented in several paragraphs, each paragraph describing the problems associated with each 'operational variable' or more specifically, each construct. Each paragraph should be problematic (expose a problem) and be related to the objectives/hypothesis/questions of the study. The contextual background should be concluded by presenting the main question (or questions) to be answered by the study and should point directly to the research problem to be investigated. Overall, the best way to write a background statement is to write it in about 2 – 3 pages in a story form without sub-titles; for examples, the historical, theoretical or contextual perspectives. At Makerere however, some schools and colleges (e.g. EASHESD) require students to write the background under the four sub-titles. Students are advised to follow what their units recommend.

3.3 Research Problem

This section may also be referred to as the statement of the problem**.** It is a very important part of the research proposal because it is in this section where the researcher presents what ultimately is prompting him/her to undertake the investigation. The researcher must understand that the research problem is what s/he has identified in literature, theory or in practice which is 'not as it should be' and requires investigation in order to obtain better understanding of it and propose solutions. It may arise from issues, difficulties, current practices or problems that need to be solved or better understood or from deductions from existing theories related to the current social or political issues, practical situations or personal experiences (Amin, 2004; Oso & Onen, 2009). It can be described as the 'why' of the study. Since the issues prompting the study would have already been raised in the background statement, the problem statement often acts as a summary of the study background. In fact, some universities exclude this section from their proposal and final dissertation or thesis because they argue that the problem of the study would have already been brought out in the study background. At Makerere University, however, this section of the proposal is critically considered, and therefore, it is advisable for the doctoral researcher to ensure that it is well-written.

In practice, it is not easy writing the statement of the problem. Most times, different reviewers have different interpretations of what the research problem is all about. According to the Makerere University, in this section, the researcher has to present in a concise and brief manner (not more than a page) the existing negative state (not absence of a solution) that has been detected and needs a solution in the practical or theoretical world, and the reason behind the proposal; that is, what will change when this research is done or what would happen if the research is not done. The guideline recommends for the researcher to link the problem to the national development priorities/framework such as the National Development Plan (NDP), the regional (e.g. AU) and the Global Development Agenda (e.g. MDGs). However, in order to write the section well, start by describing the ideal situation; that is, the ideal relationship between your study variables. Second, describe the actual situation prevailing in your research area or context. This should point to the existence of a gap (or problem) in your study context. Third, provide evidence of the intensity and magnitude (or scope) of the existing problem. Fourth, give the implications of the current situation if the prevailing situation persists or if the status-quo is altered. Finally, state what needs to be done.

1.4 Purpose of the Study

This section is also referred to as the research aim or general objective. In the section, the researcher points out what s/he intends to achieve, overall, in the study. The researcher needs to use active verbs to tell the reader what s/he intends to achieve in the study with utmost objectivity. Verbs like to examine, describe, investigate, analyse, demonstrate, *etcetera*, should carefully be used because they will set the stage for what the researcher intends to accomplish in the study. Besides, the researcher must specify whether s/he is studying a relationship, effect, influence, role, contribution or impact since this will determine the direction the study will take.

3.5 Specific Objectives

Objectives are specific aims or goals arising directly from the purpose of the study (Makerere University, 2011). They are statements of intended specific outcomes of the study and specify more directly what the researcher is going to do. They are therefore regarded as statements that clarify more specifically the purpose statement or as specific small units that add up to the purpose, or more specifically, as the breakdown of the purpose into small manageable units. For each specific objective, you must have a method to attempt to achieve it (Makerere University, 2011). A good objective should be S.M.A.R.T (specific, measurable, attainable, realistic and time-bound), and clearly indicate the target population, context and the variables to be investigated.

Generally, research objectives are derived from conceptualised study variables (or concepts). In practice, once the study variables are conceptualised (or operationalised), the researcher can then express the relationship between the independent and the dependent variables in a manner that points to the purpose of the study, using words that 'imply action' and in observable and measurable terms. There are usually five approaches (or models) to writing research objectives, based on the operationalisation and the placement of the independent and the dependent variables. These models are often described as: The many to one, the one to many, the many to many models, and the model without breaking variables (Amin, 2003), and finally, the model for mediation studies. These models can be illustrated as follows:

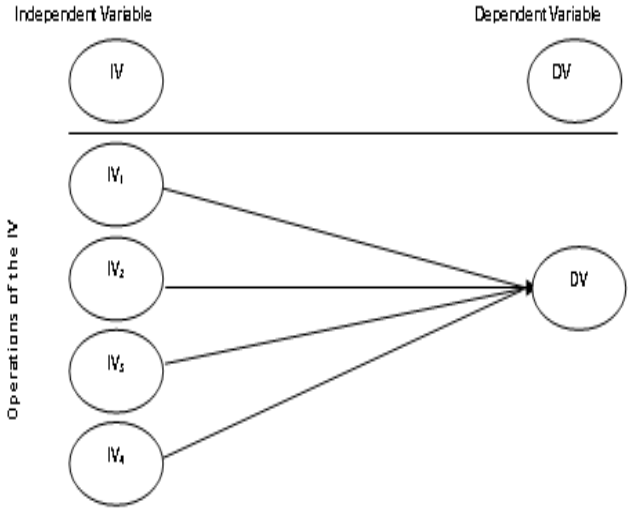

Figure 4: Model 1 objectives

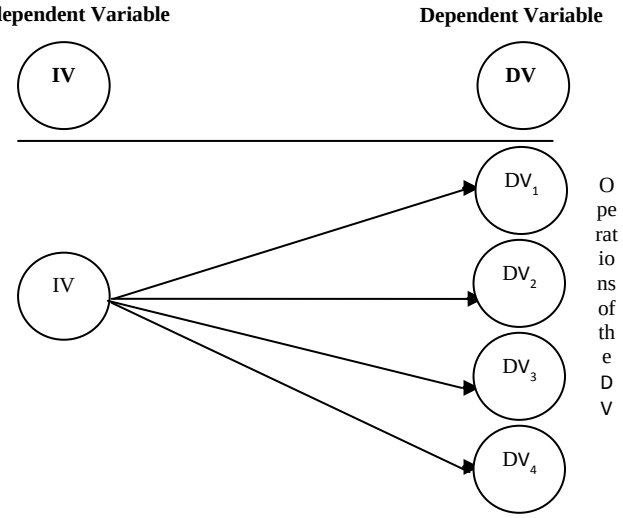

Figure 5: Model 2 objectives

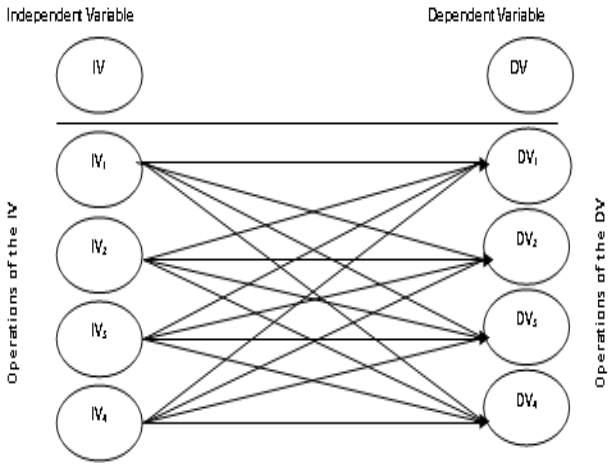

Figure 6: Model 3 objectives

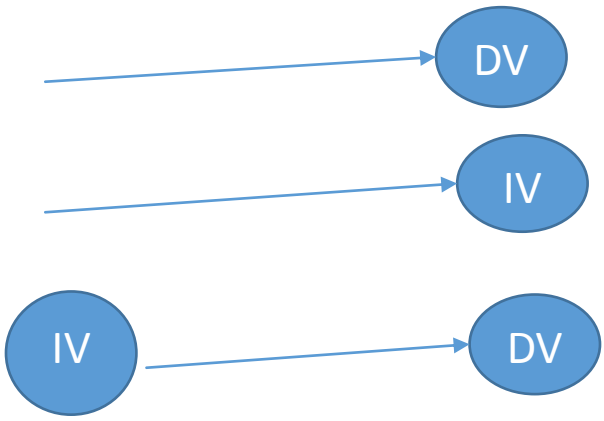

Figure 7: Model 4 objectives

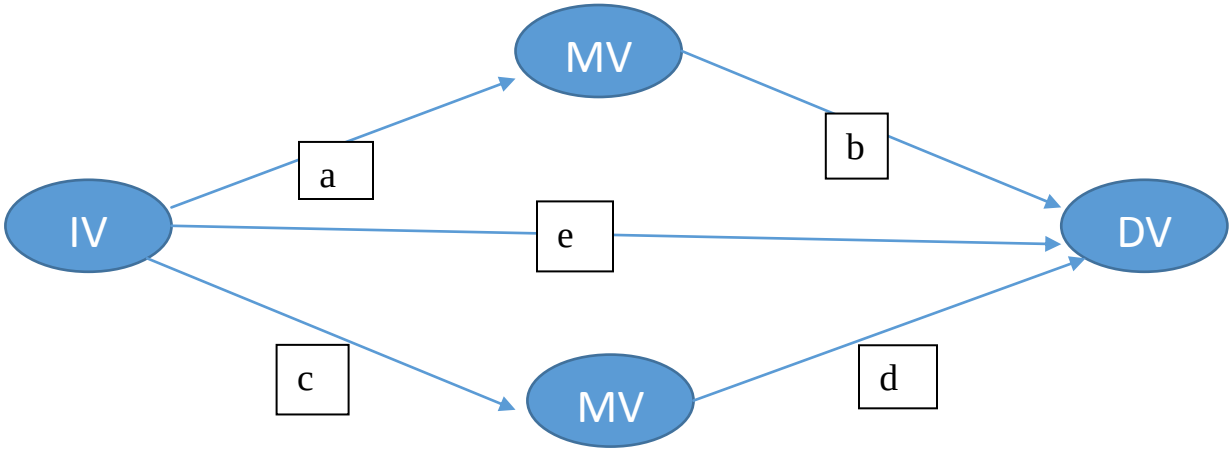

Figure 8: Model 5 objectives

In Figure 4, Model 1, the independent variable is separated into operational units but the dependent variable is retained as a unit. This is termed as the many to one approach. It is the most preferred model because the researcher is linking different dimensions of the explanatory variable with the problem (or dependent) variable to establish if it can explain the problem**.** In model 2 (or the one to many model), the independent variable is retained as a unit and related to each operation of the dependent variable as illustrated in Figure 5. Such an approach is mostly suitable where the independent variable cannot be operationalised, like in experimental research. The model is also suitable for relationship studies which do not imply causality. In the third model (or the many to many approach), each individual operation of the independent variable is related to each operation of the dependent variable as illustrated in Figure 6. The disadvantage of this approach to writing research objectives is that it generates too many objectives and makes the study cumbersome. But on careful analysis, Model 3 is just a duplication of the Models 1 and 2. Model 4 objectives is a kind of a free approach to writing study objectives and particularly suitable in exploratory and one variable studies, and in qualitative research. The objectives are generated without focusing on specific operations of the variables. However, studies with such objectives are not easy to focus or carry out as studies with Models 1, 2 or 3 objectives. Finally, Figure 8 illustrates a study involving mediations. As a result, the researcher is expected to derive study objectives that link the different study variables without necessarily breaking down the variables,

In this case there can be specific objectives targeting relationships a, b, c, d and e as shown in Figure 8. This model is associated with the work of Baron and Kenny (1986) and other scholars who have investigated mediation effects.

3.6 Research Questions/Hypotheses

Research questions and hypotheses are usually used alternately. If questions are posed, hypotheses should not be stated at the same time unless the model for deriving the study objectives permits the use of both questions and hypotheses. A researcher uses questions when s/he is not sure of the possible solutions to the research problem. S/he possess questions such that if they are answered, the responses will help achieve the objectives. To write research questions, a researcher restates each objective in question form, being careful to: (i) avoid questions that require Yes/No answers, as these will limit the scope of discussion in the later chapters (ii) ensure that questions and objectives are systematically and logically consistent, and (iii) ensure that all variables in the objectives are included in the question.

On the other hand, a researcher is expected to use hypotheses if s/he has clue of the possible relationship or effect between study variables. These clues are derived from theory or literature or even logical deductions. This is why it is logical to place the hypotheses at the end of literature review when the researcher is almost certain of the 'assumed' relationships. A hypothesis is a proposal about a solution to a problem: an "intelligent" or an "educated" guess or a tentative solution to a research problem (Amin, 2004). A well-stated hypothesis should be testable, clear and precise. It should also indicate both the independent and dependent variables and the relationship between them. Hypothesis may be stated either in null form symbolised as (H_o) or in alternative (or directional) form symbolised as (H_A). A Null Hypothesis states that there is no relationship between the variables being studied or no difference will be found in the dependent variable due to experimental treatments. Meanwhile, a directional (alternative) hypothesis, on the other hand, states a relationship between the variables being investigated or a difference due to the experimental treatments that the researcher will administer. The researcher should state the hypotheses based on theory or reviewed literature.

3.7 The Scope of the Study

This is also referred to as the delimitations of the study. It "provides for the boundary of the research in terms of depth of investigation, content, and sample size, geographical, time-frame and theoretical coverage" (Makerere University, 2011, p. 3). In the Makerere guideline, scope is placed as the last item before literature review. But in practice, students are often made to state the scope immediately after stating the study objectives or research questions/hypotheses in chapter 1.

3.8 Significance of the Study

The significance of the study refers to the relevance of study in terms of academic contributions and practical use that might be made of the findings. It should reflect on knowledge creation, technological or socio-economic value to the community (Makerere University, 2011). Thus, in this section, the researcher should describe the expected usefulness of the study to different stakeholders. It is always stated as a suggestion or intended expectation from the study. The researcher should identify the potential parties and how they may benefit from the study. These parties are often: (i) policy-makers - depending on the area of research (ii) practitioners - those who participate in the activities under investigation and (iii) scholars – fellow researchers and academicians.

3.9 Study Justification

In the section for justification, the researcher provides arguments to defend the need for the study. According to the Makerere's guideline, the researcher should answer the question – why it is important to carry out the study? In the words of Makerere University (2011, p.3) it asks, "Would the world collapse if this work is not done?" To justify your study, you could raise some of the following arguments: that (i) what is being investigated is important/critical/topical (ii) the area being investigated has 'knowledge gaps' that need to be filled (iii) the study intends to justify the applicability of a certain theory in a given field, and that the study will be of use to different stakeholders. Unfortunately, the current review form, for example that of the EASHESD, does not include the justification section. Therefore, students have not been rewarded or penalized for stating (or not) their study justification. But, it is an important section to include in a research proposal.

3.10 Theoretical Framework

A theory is a set of properly argued ideas intended to explain a phenomenon. A theoretical framework is an examination of the existing or self-formulated theories in relation to the research objectives. It refers to a set of interrelated variables, definitions and propositions that present a systematic view of a phenomenon by specifying relations among variables with the purpose of explaining a phenomenon. In setting to do a study, a researcher usually assumes that the independent variable has some influence on the dependent variable of the study. It is this assumption that a researcher tries to justify in the theoretical framework by explaining how and why one would expect the independent variable to influence the dependent variable. In developing a theoretical framework, the researcher should in a brief passage: (i) name the theory and its source (ii) indicate where the theory has been used and who used it (iii) describe the propositions or hypotheses in the theory (iv) explain the variables in the study (v) discuss the implications of the theory to the study (i.e. how it relates the independent to the dependent variable), and finally, mention a few competing theories in the same area and why they are inadequate to model this particular study. This will help to justify the choice of the theory in this study. The fact that the development of the theoretical framework involves literature review, in practice many students of different schools or faculties of Makerere University (e.g. EASHESD, SOE) place this section in Chapter 2, under Literature Review. However, the University's guideline suggests that it could be presented in Chapter 1. Doctoral students are advised to follow what is recommended by their respective units (school or faculty).

3.11 The Conceptual Framework

A Conceptual Framework is a scheme of concepts (or variables) which the researcher has operationalized in order to achieve set objectives. It is a schematic (or a diagrammatic) presentation of theory in which the theory is presented as a model where research variables and the relationship between them are translated into a visual picture to illustrate the interconnections between the independent, extraneous and dependent variables. According to Cresswell (1994), conventionally in developing a conceptual framework, a researcher should:

(i) Place the independent variable (IVs) on the left and the dependent variable (DVs) on the right separated by the extraneous variable (EVs).

(ii) Use one-way arrow (⟶) leading from each determining variable to each variable dependent on it. One-way arrow suggests the presence of a hypothesis about causality.

(iii) Use curved double-headed arrows to show unanalysed correlations between variables.

Generally, the researcher should think critically when formulating the conceptual framework. The more complicated the illustrations, the more preferred; but the researcher must ensure that the figure relays information on all what the study is about.

3.12CHAPTER 2: LITERATURE REVIEW

3.12.1 Introduction

Literature review involves systematic identification, location and analysis (or evaluation) of the documents containing information that are related to the research problem. It also entails analysis of casual observations and opinions related to the planned research. The purpose of literature review is to help the researcher develop a thorough understanding and insight into previous works and trends that have been recorded pertaining to the research problem. It provides the researcher with the means of getting into the frontiers of a particular field of knowledge. .

Literature review should however be relevant. To be relevant, it should concern itself specifically with the variables raised in the purpose, objectives, hypotheses and research questions of the study. Before a researcher embarks on literature review, s/he should take into account the purpose, objectives and the hypotheses (or the research questions) of the study. The research questions provide the direction which the research will take in achieving each specific objective and state the issues at hand while the hypotheses consider and state the variables to be tested. All the above form the core elements of a research and a good literature review should focus on them. Otherwise the literature review would be judged irrelevant. A good literature review should not only be relevant but should also be extensive, analytical, critical, up to-date and well-written.

The literature review chapter has two main sections: the introduction, and the reviewed literature on the study variables done in accordance with the objectives of the study. For instance, if the researcher stated five objectives, then s/he is expected to have five sub-sections each focusing on a single objective. Meanwhile, the introduction informs the reader about the issues to be considered in the review section. Most times, the theoretical and conceptual frameworks are also presented in Chapter 2 before reviewing related literature.

3.13 CHAPTER 3: METHODOLOGY

3.13.1 Introduction

In the introduction to Chapter 3, the researcher tells the reader what s/he should expect in the chapter. The style of making the reader aware and interested in this section of the proposal depends on the writing skills of the researcher. Effort must be made to make the reader feel like knowing more what is contained in the chapter.

3.13.2 Research Design

In this section, the researcher describes the nature of the pattern (or framework) the research intends to follow. This is termed the research design. The design is the plan or strategy for conducting the research (Cresswell, 1994; 2002). It describes the nature and pattern the research intends to follow (Makerere University, 2011). Broadly, research designs are divided into: qualitative and quantitative designs. However, within these broad classifications, there are specific designs categorized according to particular criteria. The researcher should describe the specific research design, rather than only the paradigm. Before choosing a design, a researcher should consider the purpose and objectives of the study.

Generally, quantitative research designs can be divided into different categories basing on: the ability of the researcher to control the research situation (or context) (i.e. experimental versus non-experimental designs); the objectives of the study (e.g. descriptive, correlational, explanatory exploratory and predict studies); on the basis of the intention to generalise study findings (i.e. surveys versus case studies); and, on the time dimension of the study (e.g. cross-sectional or longitudinal studies). However, qualitative designs are commonly classified basing on the mode and focus of the study. Common qualitative designs include: historical design, case studies, ethnography, phenomenology, grounded theory, explanatory and exploratory designs. Since research designs can be categorised into different types based on different criteria, the researcher should carefully select and describe the specific research design s/he will employ in his/her study. At Makerere Unversity, after describing the study design, the researcher can proceed to describe the geographical area where the study will take place (Makerere University, 2011). This section is however ignored in CEES and other colleges in the University due to the fact that information sourounding the area of study is also included in the contextual background as well as in the section for scope of the study.

3.13.3 Study Population and Sampling

The study population is the target group under investigation. It is the entire set of objects, things and people under consideration in an investigation. In research, we can often talk of target (or parent) population, accessible population and sampled population. The target population refers to the total number of subjects or the total environment of interest to the researcher (Amin, 2004; Cresswell, 1994;1997). Sometimes the population is too large or too scattered that a sample cannot logically be drawn from the whole population. In which case, the researcher may describe an accessible population. An accessible population is part of the target population which the researcher can reach and out of which the researcher can draw a sample (Serakan, 2003; Oso & Onen, 2009). The choice of the target and the accessible populations must be justified. The researcher should describe the characteristics of the population in terms of size, sub-groups and all other variables of interest. The researcher needs to point out that the study targets such and such a group of his/her population. Remember, population includes people, schools, hospitals, groups, etc. depending on what your study focuses on.

3.13.4 Sample Size and Sample Distribution

A sample is part of the target or accessible population that the researcher has chosen to study, representing the rest of the other members of the population (Amin, 2004). In this section of the proposal, the researcher should tell the reader the size of the sample size and how that sample size has been determined.The researcher should also indicate the composition of the sample population by category and size.

There are many methods for determining sample size in a study. The method chosen depends on several factors including: information on target/accessible population, knowledge of technique, etc. The researcher should state which method will be used and why. The common methods for determining sample size include:

1.Non-statistical estimations – a method in which the sample size is decided by looking at several factors in the study without applying any approved mathematical formula. Such issues that are considered include the type of research. Generally, the minimum sample size is often determined by referring to the research design. Table 2 illustrates what Kathuri and Pals (1993) suggest as recommended sample sizes under differrent study designs:

Table 2: Proposed Sample Sizes under Different Research Designs

Type of Research	Sample Size
Survey: Each major group. Each minor subgroup.	 100 20 – 50
Ex-post Facto/Experimental	15 in each condition
Correlation	30

Source: Kathuri & Pals (1993)

2.Use of mathematical formulae - there are mathematical formulae available for determining the required sample size (see Amin; 2004, Gay, 1987). These formulae are based on: the type of research being undertaken; the knowledge of the population regarding required characteristics e.g. variability, level of confidence; and whether the study is comparing the averages, frequencies, etc.

3.Use of statistical tables - there are tables available in books of statistics that can be used for determining the required sample size in a study e.g. Krejcie & Morgan (1970). However, these tables only deal with finite populations. As such, the researcher has to know the number of subjects in the population s/he is studying before using the table to arrive at the recommended sample size. If the population is heterogeneous, then the sample should reflect this.

4.Adopting sample size from published works – a researcher may adopt the sample size from a similar study whose results have already been published in reputable journals. This is done with the hope that the earlier researcher would have employed a valid and reliable method for arriving at his/her sample size (which may not be true).

3.13.5 Sampling Techniques

In this section, the researcher describes how s/he will select, with reasons, the units and subjects that will make up his/her study sampled population. The researcher can use several sampling methods in a single study. The choice of the techniques used depends on the nature of data to be collected, time, nature of target population, etc. There are two main ways of selecting study samples from the target population: probability and non-probability sampling techniques (Oso & Onen. 2009). Probability sampling refers to a situation where the chance of each member of the population (or more specifically - the chance of each sampling unit) being included in the sample is known prior to drawing the sample. This is the only sampling process that ensures the selection of a representative sample (Amin, 2004). There are four main probability sampling techniques: simple random sampling, stratified random sampling, area (cluster) sampling and systematic sampling.

On the other hand, there are also non-probability sampling techniques that a researcher can employ to select his/her sampled population. In this sampling strategy, the chance that an individual member of the study popultion will be included in the sample is unknown – hence the researcher cannot claim that the sample is representative of the larger population (Amin, 2004, Bell, 1993). The results from such studies using non-probability sampling techniques lack external validity and are generally limited in terms of generalisabilty to the larger population. However, they are preferred because they are much less complicated and less expensive. The common non-probability sampling techniques include: convenience, purposive, quota and networking (or snow-ball) sampling techniques. In qualitative research, however, since it involves an intensive study of individuals, a small sample is usually required (Bell, 1993). In most cases, the researcher does not determine the sample size in advance. The researcher simply moves to the field and as s/he analyses the information collected, saturation is reached and at which point data collection is stopped.

3.13.6 Data Collection Methods and Instruments

In this section of the proposal, the researcher describes the data collection methods and instruments that s/he intends to employ during the the study. The research student must have knowledge of the different methods of data collection and be in position to select the appropiate methods for collecting the kinds of data s/he wants. Common methods for collecting data in education and social science researches include: surveys, interviews, focus group discussion. observation, documentary analysis, measurements, tests.and so on and so forth. After selecting appropriate data collection methods, the research student needs to identify suitable data collection instruments. The instruments should match with the chosen data collection methods. Common intruments for collecting data in education and social science researches include: questionaires, interview guides or schedules, observation guide or checklist, documentary guide and checklist, standandised tests, measuring devices, etc. The doctoral student needs to possess sufficient knowledge about these instruments so that s/he can make informed choices of which ones to use and how to develop these tools.

3.13.7 Quality Control

This section of the proposal, requires the researcher to describe how s/he will ensure that the instruments that will be used in the study are valid and reliable. By validity of study instrument, we mean the extent to which the instrument truly measures what it is intended to measure (Amin, 2003;2004). There are several approaches for ensuring validity of study instruments. The choice of the appropriate method depends on the type of validity. For examples: i) face validity is mere appearance that a measure has validity. It involves using judgment to decide the extent of face validity.ii) content validity – is the extent to which the items in the instrument represent the content of the attribute being measured. It can also be ensured through judgment of the items by experts. Iii) criterion validity – is the extent to which the data collected by the instruments can predict performance on some value measured other than the score on the instrument. This may be classified into predictive and concurrent validity. However, most often, researchers compute the content validity Index (CVI) for each item in the instrument as rated by two or more experts in order to determine how valid the study instrument is. The CVI is computed as follows:

$$CVI = \frac{\text{Number of items rated relevant by all judges}}{\text{Total number of in terms in the instrument}}$$

Note: If the CVI is 0.7 and above, the instrument can then be considered valid (Amin, 2004; Kathuri & Pals, 1993).

Reliability of an instrument on the other hand, is the ability of the instrument to collect the same data consistently under similar conditions (Amin, 2003; 2004). It is about accuracy and consistency of the instruments. It can commonly be ensured through: test re-test, split-half, parallel-form reliability and the internal consistency methods. In the test retest method, the researcher pretests twice the instrument on a specific sample and then correlates the recorded scores of the two administrations (T_1 and T_2) to check for consistency. Usually, a correlation coefficient between the scores of the first and second adminstrations of the study instrument of 0.7 and above is often recommended in most survey studies (Amin, 2004). In the split-half method, the researcher pretests the instruments only once on a selected sample and then divides the scores into two halves in order to test the correlation of the responses.It is cheaper than the test re-test because administration is done only once; but it may not be reliable in garanteeing reliability.While the parallel-form reliability test involves the use of two instruments that are similar – one may be a standardized one and the other developed by the researcher.Both instruments are administered to a sample of participants and the scores of responses obtained from the two instruments are correlated to measure reliability.The aim is to ensure that the new instrument is closely related to the standardized one in terms of the data collected. Finally, the internal consistency method involves pre-testing the instrument once to a sample of respondents, and the scores of the responses are correlated using Chronbach's alpha coefficient (for Likert scale items involving more than two response categories or Kudar-Richardson (KR) coefficient (for items involving two response categories e.g. yes/no). The student should have proper understanding of these methods before s/he can select the appropiate ones for testing for the validity and reliability of his/her instruments.

3.13.8 Research Procedure

In this section, the researcher describes the steps s/he will follow in the whole research process. It is advisable to start narrating from the time this proposal is approved: What next? Key steps include: (i) getting permission from the University (ii) recruiting and training Research Assistants (if need be) (iii) getting permission from relevant authorities from the field, e.g. from the District Education Officer, or Regional Health Inspector, etc. (iv) pilot testing instruments (v) carrying out data collection, e.g. interviewing head teachers, distributing and collecting back questionnaires, etc. (vi) assembling, analyzing, interpreting the data, and (vii) writing draft and final reports.

3.13.9 Measurements of Variables

In this section, the researcher is expected to describe the kind of measurements s/he will use when measuring his/her study variables. Specifically, the researcher is expected to point out whether s/he will use scales such as the rating scale, likert scale, sematic differential scale or formulae that will aid in measuring the study concepts (or variables).

3.13.10 Data Analysis Techniques

In this section, the researcher describes how the raw data expected to be collected will be cleaned, coded, analyzed and eventually interpreted. The researcher needs to know whether s/he will collect quantitative or qualitative data and thus propose appropriate techniques for assembling, analyzing, and interpreting each type of data. The researcher needs to propose, with justification, which data analysis techniques s/he will most likely use to analyze the data to be collected.

Quantitative data are commonly analyzed using descriptive statistics (e.g. means, median, mode, standard deviations, Range, minimums and maximums, etc.) and inferential statistics (e.g. Pearson Correlation, Spearman Correlation, Phi Correlation, Regression Analysis, T-test, ANOVA, Chi-Square techniques, etc.) Qualitative data are commonly analyzed using Interpretational Analysis, Structural Analysis, Reflective Analysis, Chronological Analysis, Comparison Method, General Content Analysis, etc. The researcher needs to know when and how we use any of these data analysis techniques before s/he can say s/he will use that and not this technique, with reasons.

3.13.11 Ethical Considerations

The issue of ethics is very important in research. Despite the high value of knowledge gained through research, knowledge should not be pursued at the expense of human dignity. The major ethical issues of concern are informed consent, privacy and confidentiality, anonymity and the researchers' responsibility. The researcher should describe how s/he will ensure that ethical requirements are upheld in the study. This will include seeking clearance from the University's Ethics and Review Committee, seeking for informed consent of respondents, and taking responsibility to ensure that the study is valid and reliable.

3.13.12 Environmental Considerations

According to Makerere University (2011, p.3), where applicable, the research student should "include a statement on environmental concerns."

3.13.13 Gender Consideration

The section presents the gender issues addressed by the study and how they will be handled in the analysis (Makerere University, 2011).

3.13.14 Limitations/Anticipated Problems (Optional)

This refers to anticipated constraints imposed by methods/location/situation of research. The researcher needs to point out any potential sources of bias in the proposed study and how the limitations/bias will be addressed. However, these must not be seen to prevent the study from being carried out, otherwise it will not start. At Makerere, this section of the proposal is optional (Makerere University, 2011).

3.13.15 References

This is a list of all works cited in the proposal (Makerere University, 2011). It is intended to help in identifying and retrieving each source of information cited in the text. It should be written according to an approved format. The format adopted by Makerere University is the APA Publication Manual Sixth Edition. This guideline can be retrieved from the internet. The general format of writing references is:

Author. (Year of publication). *Title*. Place of publication: Publisher. e.g Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.

4.0 Appendices

Appendices are materials that may be of interest to some but not all readers, or which are not sufficiently pertinent to be included in the body of a proposal. They usually comprise of instruments, maps, letters of introduction, personnel met and research approval letters as well as areas visited. In a proposal at Makerere, there must be a budget, time-frame and study instruments (Makerere University, 2011). They may be attached as appendices and labelled Appendix 1, 2, 3 . . . or A, B, C.

5.0 Length of a Proposal

Different institutions have different regulations concerning the number of pages for a proposal. In Makerere, the recommended length of a proposal for a masters/diploma dissertation is 15 pages while for a Ph.D. is 25 pages - including references. This means that you must learn to sort out what to include and exclude in your proposal so that only the most vital information are considered for the proposal.

6.0 Challenges faced in writing Research Proposals

It is common knowledge that writing a research proposal is a daunting task, even to the experienced researcher. But for doctoral students, the major challenges one can face during the period of producing one's proposal include:

1) Limited understanding of research methodologies: This is often a critical challenge to most doctoral students, as very often, doctoral students reach the phase of proposal writing without grasping thoroughly several issues of research methodology. This could have risen as result of weak teaching of the research methods course or due to the student's inability to understand some of these concepts. This can pose a great challenge when it comes to writing one's proposal and final dissertation. The anti-dote to this is, continuous reading of research methodology books in order to understand what needs to be done at every stage of producing a dissertation or thesis.
2) Lack of scholarly writing skills: A research proposal is one of the scholarly writings academicians often produce. However, scholarly writing has its own set of rules and conventions that are different from those of creative or technical writing. A doctoral student must be aware of what is demanded of a scholarly writing such as a proposal, scientific paper, dissertation and the like in order to write a successful proposal and the final dissertation or thesis.
3) Poor supervisor-supervisee relationships: It is a challenge to some doctoral students to adjust and work in harmony with their research supervisors. However, if the supervisor-supervisee relationship is strained, it will curtail the interactions between the two parties often resulting in slowing down the progress of the supervisee. The doctoral student must make every effort to keep his/her relationship with the supervisor(s) 'humane and professional'.
4) Personal Challenges: Many doctoral students face all sorts of personal challenges including pressures at work, at home and in different places. Sometimes, the challenges are so stressful that the student can hardly concentrate on writing his/her dissertation or thesis proposal. The anti-dote to this is: learn to persevere and develop insights in the way you plan and accomplish what you do in day today life.
5) Inadequate reading materials: This is another common challenge doctoral students experience while writing their proposals and final reports. At Makerere University, the challenge may be compounded by a not well-stock library and an underdeveloped information communication technology (ICT) infrastructure. However, as a doctoral student, you need to be pragmatic and skilful in seeking for the information you require in order to successfully write your proposal or dissertation.

6) Lack of focus and commitment: Surprisingly, some doctoral students do not take their studies seriously even when they have opportunity to work with the 'best supervisors' available in the institution. Such students will often take long to effect necessary corrections or avoid to consult their supervisors regularly in order for the work to progress from one stage to the next. The anti-dote to this is: 'respectfully, demonstrate to your supervisor your commitment to the task before the two of you, and your supervisor will adjust forthwith.'
7) Administrative challenges: Developing and submitting a successful research proposal demands that the student must address certain necessary administrative and institutional matters. Such issues may include among others: (i) adhering to the official format and procedures (which can be confusing) (ii) registering with the institution's authority (often requires payment) (iii) making payment of relevant fees (many students usually experience financial difficulties) and (iv) co-operating with others (not always easy).

7.0 Conclusion

The importance of research proposal is self-explanatory: it is the roadmap to follow in conducting a given research. Therefore, every doctoral student needs to master the skills of writing proposals in order to be able to convince others that s//he has what it takes to accomplish the writing of his/her dissertation or thesis.

8.0 References

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