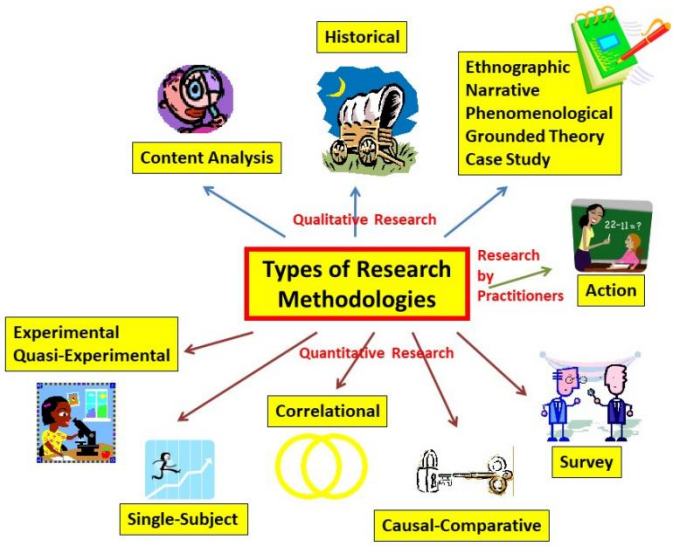
EDUCATIONAL RESEARCH SUPERVISION



A GUIDE FOR SUPERVISEES AND SUPERVISORS

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&

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UTAFITI FOUNDATION

First Published 2021
By Utafiti Foundation
Outspan, Off Eldoret-Nakuru Road,
P. O. Box 884 – 30100, Eldoret, Kenya
Tel: +254-053-206-302-4
Website: www.utafitifoundation.com

Revised 2022
© 2022 Osuji, Gregory Ekene, fms & Everlyn Achieng' Oluoch-Suleh

ISBN: 978-9966-26-249-3

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Cover Illustration and Design
Evans Wafula / Maina T. Sammy

Printed by:
Utafiti Foundation
Outspan, Off Eldoret-Nakuru Road,
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DEDICATION

The authors dedicate this work to students and lecturers of Marist International University College, Nairobi Kenya, Kabarak University, Nakuru Kenya, The Catholic University of Eastern Africa, Nairobi Kenya, United States International University-Africa, Nairobi Kenya, Godfrey Okoye University, Enugu Nigeria, and Marist Polytechnic, Enugu Nigeria.

ACKNOWLEDGMENTS

The authors wish to express their profound gratitude to those who in one way or the other helped in the publication of this book. Firstly, thanks to God who made this publication possible. With much appreciation, the authors thank all their supervisees in the different institutions of higher learning where they have worked and still work. They have exposed these supervisees to the realities of the missing link in educational research.

They are also greatly indebted to the Administration and their colleagues in the Faculty/School of Education, and School of Humanities and Social Sciences in their various Universities. To their Deans and Head of Departments, they request God's blessings on them. More so, to Prof. Aaron E. Eze who wrote the foreword to this book, thanks so much for your dedication and sacrifice. May God grant you more blessings in your selfless service to humanity. Amen!

CONTENTS

FOREWORD

In the Faculty /School of Education, and School of Humanities and Social Sciences in most Universities in Africa, one of the requirements for the award of Bachelor, Master, or Doctor of Philosophy degrees is the completion of a Research Project, Dissertation or Thesis. The research work is needed in partial fulfilment for the completion of the programme and for graduation. This is the essence of this work – Educational Research Supervision: A Guide for Supervisees and Supervisors.

This work is 'a made easy' for supervisees and supervisors who really want to devote their time and energy in seeking solutions to some educational problems. It gives directions on how to carry out research work with ease. Furthermore, it strengthens the professional relationship between the supervisee and the supervisor. The duo; Rev. Br. Assoc. Prof.

Osuji, Gregory Ekene, fms and Asst. Prof. Everlyn Achieng' Oluoch-Suleh have demonstrated the need for consistency in scholarly research partnership.

This work is a must read for every student and lecturer in the Faculty or School of Education. Here, the authors briefly explored the main parts of research work: Introduction, Review of Related Literature, Research Methods, Results, and Conclusions. They also included the contents of supervision and the role of the supervisor. As an educative and inspiring piece, I therefore, strongly recommend this book to all researchers, supervisees and their supervisors.

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Dean – School of Postgraduate Studies,

Godfrey Okoye University,

Enugu, Nigeria.

PREFACE

Research is an integral component of academia. Those who succinctly do it fly high on the streets and in the boardrooms of academic scholars. Most educational training systems the world over do not have a strong element of research. More so, specific guidelines & tutorials for supervisors on:

- ❖ What to look out for;
- ❖ How to relate with supervisees;
- ❖ How to write an impactful proposal and report (Thesis, Dissertation, Project)
- ❖ Elements and fine details of elements of a research write up etcetera

Further, there exists a reasonable gap regarding research guidelines & procedures for supervisees. Most of them are usually thrown on the deep end of the research pool and only try to swim up the flow albeit slowly and not without

considerable challenges. Majority of them drop out prematurely, while others spend many years doing the same thing. Even worse, some supervisees come out of the system half-baked, inadequately trained and ill-ready for the academic terrain. It is against this background that the thought for this beautiful master piece was materialized.

There are two opposing paradigms in research in general. These are qualitative and quantitative paradigms. These paradigms emerged as a result of disagreements amongst social scientists on the nature of the social reality and how best it can be studied. Some social scientists believe that reality is single, tangible and transparent and that it is possible to study social reality using the same principles and procedures that natural scientists use. Social scientists who take this view adhere to the quantitative paradigm. Other social scientists contend that the social world is qualitatively and fundamentally different from the natural reality. That social realities are multiple and holistic and therefore can

only be studied holistically. Social scientists that take this view adhere to the qualitative research paradigm. However, the third wave that bridges the gap between the opposing two paradigms is the mixed methods paradigm.

The social scientist under the quantitative paradigm believes that the nature of the social world can be discovered. That its organization and crucial parameters can be explained this will then form a basis for predictions. Quantitative research is an objective and systematic numerical examination and interpretation of data to obtain information about the world for the purpose of describing and explaining phenomena that those observations reflect. Quantitative research is based on statements such as anything that exists in a certain quantity can be measured. Quantitative research is an inquiry that is grounded in the assumption that features of the social environment constitute an objective reality that is relatively constant across time and settings. The dominant methodology is to describe and explain features of this reality by collecting

numerical data on observable behaviours of samples and by subjecting these data to statistical analysis.

On the other hand, qualitative research is a multi-method involving an interpretative naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. Qualitative research is an enquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. Here, the researcher builds a complex holistic picture, analyses words, reports detailed views of information and conducts the study in a natural setting. Qualitative research is the systematic collection, analysis and interpretation of data in order to provide descriptions and accounts of social events and objects of research in their natural setting. Qualitative research is therefore interpretative which implies that the researcher interprets data and then draws

conclusions about its meaning. The fight of supremacy between the scholars of quantitative and qualitative paradigms gave rise to the emerging paradigm - the mixed methods paradigm.

Mixed methods paradigm is the third wave. It is the type of research where the researcher mixes or combines quantitative and qualitative research paradigms, techniques/ designs/ traditions, methods, instruments, approaches, concepts or language into a single study. This little book is not going in-depth on these paradigms, rather, it concentrates on guiding supervisees and supervisors on the contents of research.

The timing of *"Educational Research Supervision"* could not have been any better. In any case, it is long overdue. We have vividly provided insights on key research-supervision elements as well as supervisee guidelines. We believe that as soon as this master piece goes up the clouds & down the

prints, and disseminated to the targeted audience, the gap will be no more. It will close up!

Rev. Br. Assoc. Prof. Osuji, Gregory Ekene, fms &

Asst. Prof. Everlyn Achieng' Oluoch – Suleh

November, 2022

Nairobi, Kenya.

RESEARCH TOPIC

Introduction

The first step of a research exercise is the identification of an educational problem which will form the study title or topic. Overcoming this hurdle is in itself an achievement to many for without the study title or topic, no research can ever take place. An educational problem is the challenge and difficulty that a researcher encounters in their literature search or personal experience and they try to get a solution to it. It is a contemporary challenge in the education sector which the researcher seeks solution to. An educational problem is an imbalance in the education sector. It is also a gap and an unsatisfactory state of affairs in the education sector. In support of the aforementioned definitions of an educational problem, Wambiya (2014) conceptualises an educational problem as an intellectual challenge or a question of interest

which can be answered through collection, analysis and interpretation of data.

Identifying a problem worth investigating is many a time a hectic task to scholars, students and researchers. Many students easily go for problems that have no much educational significance or problems that have been solved. The reason behind this is lack of commitment on the part of students to explore pertinent literature that would help them establish problems that are of educational importance at the moment in a particular field of study.

Selection of a Research Problem

It is of paramount importance to carefully select a research problem undertaking for the study. As a researcher, it is crucial to consider the following points:

1. Subject which has been delved into many a time should not be chosen because there may not be any novelty in it.

2. An average researcher needs to avoid controversial subjects.
3. Problems that are too narrow and vague need to be avoided.
4. The subject selected for research needs to be familiar and feasible and research materials available within the reach of the researcher.
5. There is need for wide exploration of literature/preliminary studies before a researcher selects a problem.

Sources of an Educational Research Problem

The following are some sources of an educational research problem:

1. Existing Literature: This is from books, reviews, encyclopaedia, journals, and periodicals in an area the researcher is interested in.

2. Previous Research Studies: Although this is part of literature, reports of previous studies may contain a section on suggestions for further research.

3. Replications: This is another way an identified problem could be further investigated. A student or researcher may decide to replicate a previous study which they consider significant. The reasons being that:

    - ❖ There may have been controversial or doubtful findings.
    - ❖ There may have been methodological imperfections or the need to use a new method in re-investigating a problem.
    - ❖ There may have been changes in time and place.

4. Existing Theories and Principles: Theories give rise to deductions which need to be tested and these deductions from theories constitute good problems.

5. Personal Experience(s): Most students for example usually encounter some problems requiring investigation in the course of their professional training. Such personal experiences could manifest during fieldwork, teaching practice, lectures and seminars.
6. The Media: The media often explore issues that are rampant in society and which may require in-depth research.
7. Discussion fora with Specialists: Critical issues always emerge during discussions in class, places of work etcetera. Such frontiers may also present fundamental problems for research.

What is Next?

When one has identified a problem, the next step is to read more literature. This will enable the researcher to:

1. Broaden their knowledge about the problem.

2. Identify gaps that may not have been explored by previous studies.
3. Formulate a research topic.

Characteristics of a Good Research Problem

Before embarking on a major task of formulating a research topic, the researcher should ask themselves the following questions:

1. Is the problem researchable or viable?
2. Does the problem have contemporary significance?
3. Can the problem contribute to new knowledge?
4. Is the researcher passionate about the problem/issue?
5. Does the problem have any ethical controversy?

Formulation of a Research Topic

A research topic is the most read part of the research work. Therefore, much care should be taken when formulating it because the topic gives the first impression and will influence

the vital decision and predisposition of the readers about the whole work. The reader may develop a negative opinion towards the entire research work and remain biased when the topic is confusing, clumsy, vague or inappropriate regardless of the worth hidden in the document. A topic should therefore not be too short, vague or general and neither should it be too long, clumsy or complicated.

Guidelines for a Good Research Topic Formulation

Different Institutions of higher learning have varying guidelines for formulating a good research topic. That notwithstanding, the current authors suggest that when formulating a research topic, make sure that:

1. The topic has twenty-one words or less.
2. The topic is short, clear/easy to understand.
3. The important words, variables are clearly brought out in the topic.
4. There are no abbreviations, formulae in the topic.

5. There is no full stop at the end of the topic.
6. There are no waste words such as “An… The…. A…
7. The words used in the topic reflect what is in the entire research work.
8. The words are accurate, concise and specific.
9. The topic follows the model approved by your Institution/ School/ Faculty or Department.

Criteria for the Identification of Good Research Topic

In order to come up with a good research topic, the researcher needs to do the following:

1. Pick on an educational issue that has been of special interest to you.
2. Look through a list of research reports and read through the abstracts to obtain main ideas of the various educational researchers done.
3. Read through sections of a few research reports under the heading; “Suggestions for Further Research.”

4. Consult a staff member, especially your academic adviser, or supervisor and discuss the issue of identifying a problem with them.

5. Select a topic from a list drawn up by your School/Faculty/Department or have a topic assigned to you from their list.

PRELIMINARIES

Departments/faculties/schools/colleges of institutions of higher learning have their different ways of approaching the format for their research project writing. What we have in this document is a guide. Therefore, the supervisees need to use the format of their different Institutions. The preliminary pages in this document comprise of the cover page, title page, approval page, certification page, dedication, and acknowledgments. It also contains the table of contents, list of tables, and list of figures. List of abbreviations and acronyms and the abstract are also part of the preliminary pages.

Cover Page

This contains the title (topic) of the research work, name, and registration number of the researcher, their departmental base, faculty, institution as well as month and year of publication of the report. It is recommended that while typing

the cover page, all typing should be in capital letters, typing should be single spacing, the typing should be placed at the centre of the page, the spaces above and below the prints should be equal, and other spaces in between unit prints should be equally spaced.

Title Page

This page is similar to the cover page, except that it contains more information on the purpose of the report. The typing of the Title page follows the same pattern as the cover page.

Approval Page

In the approval page, the department testifies that the researcher's work has been considered for examination. For certificate and diploma projects, the approval page is required and endorsed. It is also required for Postgraduate projects, dissertations, and theses.

Certification Page

This page is compulsory for all academic research reports regardless of the level of study. Here, the student certifies

that the study being reported is original and has not been submitted anywhere else for the same or different purpose.

Dedication

This is optional as the researcher will not be penalized for not dedicating their work to anybody. However, it is recommended that the researcher dedicates their work to a living being.

Acknowledgment

This is a section on appreciation of individuals and/or organization that gave remarkable assistance and contributed to the success of the study. This should be written in the third person singular. The researcher needs to acknowledge all persons who helped them in one way or the other in achieving the result of the study. The researcher needs to pinpoint the contributions of each individual or agency.

In this section, all important contributors should be acknowledged; for example, persons who provided statistical

or technical advice and assistance, the subjects, those who helped with recruitment and personnel who helped with the preparation of the manuscript. If the research was supported by a grant, then the name of the funding body must be included. In academia, the order of acknowledging is as follows: God, the researcher's supervisor, Head of Department, Dean of the Faculty/ Director of the School, Lecturers, and others.

Table of Contents

This section provides an outline of the content areas of a research report and the pages where they could be found. Here, the researcher should also include preliminary pages as well as sub-content areas within major content areas.

List of Tables

This comprises all tables in the write up. The researcher should serially number tables contained in the research report irrespective of the part of the main body of the report the table appeared. This sub-unit on the list of tables

therefore provides a compilation of serialized tables and the pages on which they appeared.

List of Figures

The list of figures provides information on the title maps, diagrams, charts, graphs, just to mention a few, that may be found in the report and the pages where they appear. Most educational research do not however involve these materials. The researcher should provide the sources of the figures.

List of Abbreviations and Acronyms

This provides the list of abbreviations and acronyms as well as their full versions. In some Departments/ Faculties/ Schools, students are encouraged to explain the abbreviations, and acronyms they used in the body of the work. Therefore, there may not be need to bring out a particular section called; "List of Abbreviations and Acronyms."

Abstract

This is summary of the research report at a glance. The abstract contains abridged information on all areas of the research including a brief background of the study; which details the gap/problem; purpose of the current study; methods – including statistical analyses used; important information on methods; design, target population and sample, instruments for data collection and procedures for data collection, data analysis procedures, most important results; major conclusion; applications; and major recommendations. The abstract should be a standalone write up. A good abstract needs to have a word limit ranging from 150 to 250 words and it is typed as a single paragraph without paragraph indentation.

INTRODUCTION

This chapter consists of the following: background to the study, statement of the problem, purpose of the study, research questions, hypotheses (where applicable), scope of the study, and significance of the study. It is worthy to mention that different Institutions have their different formats for research. No matter the arrangement, these essential elements must be factored in.

Background to the Study

The background to the study is the soul of the educational problem being explored. Different Institutions determine the number of pages of this section. However, we propose that the background needs to be between five and ten pages. The background draws to the attention of the researcher and readers, the significance of the study and the identification of gaps in knowledge. A lot of review of literature is required

here, however, brought out in a very concise and readable manner. The literature needs to be of recent (not more than ten years old – however, there are some circumstances that can warrant you use older literature; for example, theories and hard facts that are very relevant to your study).

In this background to the study, the researcher traces the conditions and factors necessitating the study and presents all materials which will help their readers understand the development of the problem under investigation. The essence is to provide the necessary background information that will show the reader the conditions, circumstances and factors that have given rise to the problem under investigation. Its purpose also is to establish a framework for the research, so that readers can understand how it is related to other research (Creswell, 2014).

Reflecting on writing the Introduction, APA (2010) suggests that the researcher needs to think about these questions:

1. Why is this problem important?
2. How does the study relate to previous work in the area?
3. What are the primary and secondary hypotheses and objectives of the study and what, if any, are the links to theory?
4. How do the hypotheses and research design relate to one another?
5. What are the theoretical and practical implications of the study?

In-depth meditation on the above questions helps the researcher to come up with a good Introduction that is expressed in few paragraphs and gives the readers a track of purpose on what was studied and why it was studied.

With regard to the Background to the Study, Maina (2012) asserts that it should include the following:

1. The rationale for the study – clarifying reasons and need for the study.

2. The challenges inherent in the study due to the identified issue.
3. The opportunities for improvement.
4. The knowledge of the study area and the previous studies in the area.

Elements of the Background to the Study

The following elements should be addressed in the background to the study:

1. The researcher has to first state the broad theme or topic of the study in such a way that the reader understands exactly what the study is all about.
2. Once the researcher introduces the broad theme, its academic and practical importance (if applicable) has to be explained. That is, provide a convincing answer to the question; why any reader should take interest on your research work.

3. Summarize the available literature and cite the most important previous studies that are relevant to the current research. If the research was replicated it should be stated clearly at this point and an accurate in-text reference to the study that was replicated provided.
4. Next, the researcher indicates the most important gaps, inconsistencies and /or controversies in the literature that the current research addresses. The researcher should explain the **s**tudy's main contribution in such a way that the benefits to the reader are accentuated.

Note that some of the aforementioned elements and sub-elements may be combined. It is necessary to write the opening paragraph in plain English Language without using technical jargon as well do not plunge the eager reader straight into a problem or theory. Take necessary time to lead the reader to understand the problem step by step. Always start a paragraph with your own idea before supporting it with other scholars' ideas.

Salient Points about the Background to the Study

1. The background to the study needs to be between 5 and 10 pages.
2. The background to the study needs to be detailed and not sketchy.
3. The context of the study needs to be outlined briefly.
4. The interrelationships of the independent and the dependent variables of the study need to be explored.
5. The study needs to be put in larger context of the scholarly literature.
6. Related literature reviewed needs to be drawn from global/international, regional, national, and local perspectives.
7. The possible gaps that previous studies may have missed out on ought to be identified.
8. The nature of the problem to be studied (how, magnitude, where, who….?) needs to be brought out.

9. The readers are supposed to be convinced that a problem exists.

In summary, in the background to the study, the researcher should explicitly describe the origin of the problem under investigation. In other words, the researcher needs to explain the background of the phenomena: activity, programme, policy, just to mention a few, being investigated. In this section, the researcher must demonstrate the following aspects; clearly bring out the main or key idea or construct being investigated, contextualize the problem: the genesis, historical background or evolution of this problem, the current situation of the problem, and demonstrate that the problem can realistically be resolved using the intended scientific exploration. **N/B**: After clearly demonstrating that there is truly a problem to be investigated, the researcher should make a coherent transition from the background to the next section; the statement of the problem.

Statement of the Problem

The exploration of the background to the study leads to the Statement of the Problem. The statement of the problem expresses the need for the study. It represents this singular question: why is the study necessary? The statement of the problem can be stated in either a declarative or an interrogative form (Nworgu, 2015). In whichever form the problem is stated, it should be concise, brief and unambiguous and there is need to bring out the relationship between two or more variables in your statement of the problem.

Wambiya (2014) pleads that the statement of the problem should not be more than two paragraphs. In supporting Wambiya (2014), it is wise for the statement of the problem to be just a statement not exceeding a page. Let it just be one-to-two-point packed paragraphs. In the statement of the problem, it is of paramount importance for the researcher to state why the problem needs to be researched on. The researcher can only do this by having a good review of

literature and bringing out gaps of knowledge from previous studies in the same area.

***The statement of the problem needs to address the following*:**

1. An opening statement that answers the question, 'what is the problem?' An opening statement that stimulates interest as well as conveys an issue to which a broad readership can relate to. It should do so precisely and authoritatively.
2. A focus on the key concept/phenomenon/ being explored.
3. A critical concern (dilemma, issue) to establish a strong rationale for the study; that is, the study context.
4. Knowledge gap.
5. How the researcher plans to address the need/issue.
6. Numeric information for impact (e.g., every year, an estimated 5 thousand secondary school students in

Nairobi County perform poorly in Geography standardized examination).

The researcher should consider the following procedures for stating the problem of the study:

Statement of Need

1. A motivating statement that addresses the problem.
2. Focus on the key concept/phenomenon being investigated.
3. State the need of critical social concern (dilemma, issue – e.g., poor performance, inertia, indiscipline, etc.) to establish a strong rationale for the study.

Statement of Knowledge Gap

1. Demonstrate knowledge gap from previous studies.
2. Outline how the researcher plans to address the need/issue.
3. Consider numeric information for impact (e.g. every year, an estimated 5 thousand primary school pupils drop out from school….).

Statement of the main Question/Problem

1. Therefore, the purpose of this study is to…

2. It is against this background that the proposed study will…

In summary, after describing the context of problem, the researcher embarks to demonstrate three key issues here, that is, show the **social need** - why is the research important or why is it needed? It is important for the researcher to clearly show that there is great need for the research to be conducted and further show the implications of the study. State the **knowledge gap** of the study - the researcher should clearly demonstrate how this kind of research is novel and therefore the intended research proposes to close the existing knowledge gap(s). Finally, make a clear **statement of intent**, that is, make the intention of the study clear: for instance; this study therefore is an attempt… As you state the problem in a very clear way, you now move to the Purpose of the Study.

Purpose of the Study

The purpose of the study refers to what will be accomplished in the study. It should capture in a single paragraph the essence of the study. It represents statement of the objectives of the study (Nworgu, 2015). Example;

- The purpose of this study is to explore the implications of teacher quality on students' academic performance in Christian Religious Studies in senior secondary schools in Enugu State, Nigeria.

The specific research objectives flow from the main purpose of the study. The specific objectives are the proper guide the researcher needs to find the possible solutions to the problem of the study.

Research Questions

The research questions are specific objectives or purposes of the study that are written in question form. They are questions the researcher poses in order to explore solutions to the problem on study. These questions are guiding principles

to the study with regard to the instruments for data collection and the type of data to be collected.

Research questions are mostly derived from the background to the study as well as the statement of the problem. The essence of any research undertaking is to find a solution to an identified problem. Research Questions help in establishing thought processes that would help generate solution(s) to the problem.

Different research paradigms have their varied ways of writing research questions. For instance, in quantitative research, the research questions must be specific. This is the reason researchers are encouraged to start the questions with WHAT or TO WHAT EXTENT. However, in qualitative research that is mostly explorative, the research questions may start with HOW and WHY.

Examples:

Quantitative Paradigm

1. What are the factors that contribute to students enhanced academic performance in Biology?
2. To what extent does instructional material contribute to students enhanced academic performance in Biology?

Qualitative Paradigm

1. How does instructional material contribute to students enhanced academic performance in Biology?
2. Why do students perform poorly in Biology standardized examinations?

The research questions are meant to provide focus on the main concern of the research project. Therefore, it should determine the data to be collected and the methods of collecting the data. Researchers are encouraged to formulate simple research questions. That is, questions that items on data collection instruments can address easily. Research

questions move hand in hand with study objectives. Therefore, there should be a research question for every objective.

Hypothesis

This is a predictive statement that can be tested by scientific methods which relate independent variables to a dependent variable. This is an intelligent guess or assumption. There are two types of hypotheses: the alternative hypothesis (H_a)or(H_1) and the null hypothesis (H_0). Alternative hypotheses are always stated in the affirmative- There is a significant relationship…, while the null hypotheses are stated in the negative.

The alternative hypothesis states that a population parameter is smaller, greater, or different than the hypothesized value in the null hypothesis. The alternative hypothesis is what you might believe to be true or hope to prove true. Whereas, the null hypothesis states that a population parameter (such as the mean, the standard

deviation, and so on) is equal to a hypothesized value. The null hypothesis is often an initial claim that is based on previous analyses or specialized knowledge.

Examples of alternative and null hypotheses include:

H_a: There is a significant relationship between virtual class participation and students' academic performance.

H_0: There is no significant relationship between virtual class participation and students' academic performance.

H_a: There is a significant difference in the mean scores of students taught Geography using instructional materials and those taught without instructional materials.

H_0: There is no significant difference in the mean scores of students taught Geography using instructional materials and those taught without instructional materials.

Hypothesis is an informed or intelligent guess about the solution to a problem. Hypothesis provides the researcher with the necessary guide or direction in searching for the solution to the problem under investigation. Creswell (2014) submits that; "Hypotheses are predictions the researcher makes about the expected outcomes of relationships among variables; that they are numeric estimates of population values based on data collected from samples" (p. 143).

A good Hypothesis should be:

1. Testable.
2. A statement of an expected relationship between two or more variables.
3. Plausible; that is, based on what is consistent with reason.
4. Consistent with current knowledge.
5. Unambiguous; that is, stated in clear and simple terms.

Note that hypotheses strengthen the findings gotten from the research questions in quantitative research. Research questions are subjected to descriptive statistics and decisions while hypotheses are subjected to inferential statistics and decisions.

Scope of the Study

In the research format of some institutions of higher learning, they have Scope and Delimitations of the Study. These are the boundaries the researcher sets for oneself. It delimits the researcher as specified. It is about the coverage of the research.

We have content scope, geographical scope and level/population scope. In the content scope, the researcher brings out the specific variables that make up the specific purposes/objectives of the study. The geographical scope is the physical location in which the study is conducted. Then, the level/population scope is the class or people who gives the researcher the relevant information they need for the study.

After identifying the scope of the study, the researcher needs to justify with scholarly evidence why they chose the specific scope.

Significance of the Study

This is about the relevance of the findings of your study to all the stakeholders involved in the study. The significance of the study is simply a way of justifying your study vis à vis theoretical and practical implications. This means, what the society stands to gain through the study. This is the potential usefulness of the study to the various stakeholders; e.g., the Ministry of Education, educational agencies, curriculum developers, schools, administrators, teachers, students, parents, community, and other researchers. It also explores the researcher's contribution to knowledge; specifically, literature and theory.

The language the researcher uses in this section is future tense. In the practical significance of the study, the researcher needs to identify the direct beneficiaries of the findings of the

study when disseminated. Then, the researcher needs also, to explain how these stakeholders shall benefit from the findings of the study. In the theoretical significance, the researcher has to explain how the findings of the study may validate or refute the theory that the study anchored on.

In summary, the researcher should indicate the contributions that the research may bring about. One should show why the research study is important, what contributions the results will make to educational knowledge and practices. Further, how the results will fit in the major educational/social problems/needs.

REVIEW OF RELATED LITERATURE

Introduction

The review of related literature is also known by some scholars as the *State of the Art*. It is quite extensive and it demonstrates the researcher's academic prowess. This is where the researcher interacts and argues fully with other scholars in order to make the current study relevant to the readers. It is expected in this section that the researcher would go an extra mile digging for information on the subject being studied. However, in doing so, they must give credit to other scholars who laid the foundation for the study.

This chapter covers the following areas:

1. Conceptual Framework
2. Theoretical Framework (where applicable)
3. Review of Empirical Studies

4. Summary of Review of Related Literature and Identification of Knowledge Gap

Conceptual Framework

This is the schematic representation of the variables of the study. It shows clearly how the different variables in the study are interrelated and interlinked. It has been observed that many students enjoy writing long essays covering a lot of pages in the conceptual framework. Apart from the diagrammatic representation of the variables of the study, what you need in the conceptual framework is a brief and concise explanation of the interrelationship of the key variables of the study. It is in the review of empirical studies that you demonstrate more of your academic and scholarly prowess.

Theoretical Framework

Theories are valuable in several ways. Firstly, theories identify commonalities in isolated cases. That is, theoretical constructs identify the universals of experience so that one

can make sense of experience. Secondly, a theory enables us to make prediction and to control phenomena.

Theoretical Framework is a philosophical framework that guides the research study. It is the philosophical underpinning upon which a particular study is grounded. In the theoretical framework, the researcher needs to:

1. Identify the theory closely related to the study – the focus should be on the dependent and independent variables.
2. Name the proponent of the theory and the year and place they propounded the theory.
3. Describe the theory in terms of the components/ tenets.
4. Highlight the strengths of the theory – here, the researcher needs to interact with other scholars.
5. Highlight the weaknesses of the theory - If there are more weaknesses than strengths, the researcher needs to look for another theory to support the first theory.

6. Justify why they chose the theory.

7. Apply or relate the theory to the current study.

Review of Empirical Studies

Empirical study is evidence-based research. It is simply the collection and analysis of primary data based on direct observation or experiences in the field. Here, conclusions of the study are strictly drawn from concretely verifiable evidence. This is to say that empirical studies are based on observation and measurement of phenomenon as directly experienced by the researcher in the field.

For the review of empirical studies, the researcher is expected to delve into studies done on the topic area either published or unpublished. This review should be arranged in themes or subheadings drawn from the research questions or specific purposes/objectives. The review is required to provide a scholarly critique of each article under its respective theme or Sub-heading. The researcher should be aware that only empirical studies are reviewed in this section and not

textbooks. The researcher can visit this search engine: ***freefullpdf.com*** or ***https://scholar.google.com/*** for empirical studies on different subject areas.

The review must be comprehensive and detailed. This means that, it must be drawn from its international/global, regional, national, and local perspectives. This gives credence to the research problem and shows the researcher's scholarly prowess in convincing their readers on the need for the current study.

In reviewing an empirical study, the researcher needs to provide an inviting statement to the section by explaining what it entails or consists of. Then, arrange the review according to the themes or subheadings drawn from the research questions or specific purposes/objectives. In each theme or subheading, we propose that the researcher reviews about four or more studies – each from the international/global perspective, regional perspective, national perspective, and local perspective respectively. This

may give a robust information the researcher needs in order to convince the readers on the relevance of the current study. The studies need to be arranged in its ascending (2011, 2014, 2018, 2021) or descending (2021, 2018, 2014, 2011) orders. The researcher is expected to use current empirical studies; that is, ten years old maximum – (e.g., 2013-2023). Nonetheless, five years old (2018 – 2023) is preferred.

The review should focus on the author, the year of publication, the paraphrased title of the study and the geographical area of the study. The researcher should also focus on the design of the study, the target population and sample. More so, the instruments for data collection, data collection and analysis procedures. Lastly, the key findings of the study. After identifying the key findings, the researcher is to show scholarly skills by bringing their own voice. This is where the researcher gives a critique of the study and tells their readers how the reviewed study relates or differs from the current study on the basis of scope and methodology. It should be

noted that the researcher does not need to include the recommendation of the reviewed study because it is different from their current study.

Here is a typical example of an empirical review:

> Osuji and Oluoch-Suleh (2023) examined the availability of laboratory resources and performance of students in high school Biology. The study was carried out in Kisumu County, Kenya. Two research questions and hypotheses guided the study. Correlational research design was employed for the study. The sample of the study consisted of 120 Form two students and five teachers of Biology. The instrument for data collection was 'availability of laboratory inventory-type questionnaire.' The researchers personally administered the instrument to the respondents. Data collected were analysed based on the two hypotheses that guided the study. Pearson r Product Moment Correlation was used to analyse the data. The findings of the study showed that there is significant

relationship between the utilization of laboratory resources and students' achievement in Biology. The current study share similarities with the reviewed study in terms of the study content scope generally even though the current study concentrated more on audio-visual materials. The reviewed study differs from the current study in terms of geographical area of study and method of data analysis, research design and subject area.

Summary of Review of Related Literature and Identification of Knowledge Gap

This is drawing out some key elements of the related literature reviewed in this chapter. Further, the researcher needs to establish the missing link in the various studies reviewed, which the current study needs to fill. This should establish the relevance of the current study. There is no need for intext citation in this section. In addition, the summary should be brief. It should not be more than one page.

RESEARCH METHODS

This chapter consists of the design of the study, area of the study, population of the study, sample and sampling techniques, instrument(s) for data collection, validation of the instrument, reliability of the instrument, trustworthiness of the study (for qualitative research), methods of data collection, experimental procedure (for experimental study - where applicable), methods of data analysis, and ethical considerations. This chapter should describe the steps followed in the execution of the study and also provide a brief justification for the research methods used. It should contain enough detail to enable the reader to evaluate the appropriateness of the methods and the reliability and validity of your findings.

This chapter is really descriptive in nature. Here, the main thing is to make sure that enough information is given to ascertain the findings and to enable replication of the study by another researcher. Information given needs to be presented using the past verb tense and in chronological order. However, at proposal stage, the language the researcher shall use is future tense.

In the research methods, the researcher reports briefly on the following:

Design of the Study

In reporting about the research design for the study for example, there is need to mention the paradigm and the type of design under it (e.g., This study adopted a quantitative/ qualitative/ mixed methods research paradigm. It specifically made use of experimental design– true experiment or quasi-experimental design - Pretest-posttest control group design, posttest only control group design, Solomon four group design/ survey design -longitudinal, cross sectional,

correlational/ ex-post facto design/ biography design/ case study design/ ethnography design/ phenomenology design/ grounded theory design/ triangulation design/ exploratory design/ explanatory design/ embedded design). Give a brief description of the design and justify your choice for a particular design.

Area of the Study

This is also known by some institutions of higher learning as "Location of Study." This is of paramount importance for the researcher to give a brief description of the geographical area where the study is carried out. Here, the researcher needs to pin-point the political, socio-economic, religious, technological and educational factors of the environment. These factors may have influence on the type of data they would collect. The researcher also needs to justify the choice for the study location and state why it is most ideal to the current study.

Population of the Study

Here, the researcher needs to describe the characteristics of the participants of the study. The researcher needs to bring out clearly the number of people involved in the study and their demographic characteristics such as: their age, sex, ethnic and/or racial group, level of education, socio-economic status, just to mention a few. As a rule, APA (2020) states that you need to describe the groups as specifically as possible, with particular emphasis on characteristics that may have bearing on the interpretation of results.

Sample and Sampling Technique

The researcher needs to determine the sample size before applying the technique (s) in selecting the participants/subjects/ of the study. The researcher can use 10% or 30% of the total population as the sample size of the study. However, the researcher needs to acknowledge the scholars who supported this idea. Also, the researcher can equally employ statistical calculations in determining the

sample size. Some examples of the formulae include: Krejcie and Morgan (1970), Yamane (1973), just to mention a few.

N/B:

Proponents of 30% Sample Size

Dessel (2013); Borg and Gall (2003); Mugenda and Mugenda (2003)

Formulae for the Determination of Sample Size

Krejcie and Morgan (1970)

$n = X^2 NP(1-P) \div d^2 (N-1) + X^2 P(1-P)$

n = Sample size

X^2 = Table value of Chi-Square for 1 degree of freedom at the desired confidence level (3.841; that is 1.96 X 1.96 = 3.8416)

N = Population size

P = Population proportion (assumed to be .50 since this would provide the maximum sample size)

d = Degree of accuracy expressed as a proportion (0.05)

Yamane (1973)

$$n = \frac{N}{1 + N(e)^2}$$

Where; n = Sample size

N = Population

1 = Constant

e = Error term or Significant level (0.05)

(See Reference list for the proper referencing of these Authors)

For the sampling technique(s), the researcher needs to identify the type of sampling used. Then, they need to give a concise description of the specific sampling technique(s) employed in the study. Furthermore, the researcher needs to give a justification why this approach is appropriate in selecting participants (cite sources to support your argument).

Instrument(s) for Data Collection

Here, the researcher is advised to state the instrument used for the study; that is, to collect data. The researcher should describe the sections of this instrument. Furthermore, the researcher needs to justify the choice for that particular instrument (cite sources to support your argument).

Validation of Research Instrument(s)

The researcher should describe how they validated the instrument (s) for data collection i.e. – face validity/content validity. The researcher needs to tell their readers the specialists (their names, area of specialization, rank, faculty, and institution) who validated the instrument; what they were told to do, what they did, and what the researcher did after the validation. Evidence of this needs to be attached as appendix in the report.

Reliability of Instrument(s)

The researcher needs to describe the reliability of the instrument – testing the internal consistency of the

instrument. The researcher needs to outline how pre- testing or piloting was done and the specific methods employed. Thereafter, the researcher needs to bring out the computed results (only the coefficient of internal consistency – then, attaches the computation at the appendices page) and show the implications of the result based on strength and direction. Evidence of this needs also to be attached as appendix in the report. We recommend you refer to your research textbooks or research online materials on how to conduct a standard pilot study.

Trustworthiness of the Study

This is mostly for qualitative research paradigm. Here, the researcher needs to establish the trustworthiness of the study based on four techniques: credibility, transferability, dependability and confirmability. The researcher needs to describe how they ascertained trustworthiness in the entire research; that is, from the problem identification to the final report. The researcher also needs to describe how they had an

in-depth observation of the phenomenon under study and had a rigorous literature search on the same. Furthermore, how they adhered to academic honesty in the literature review and identified the gaps that their current study filled.

For data collection instruments, the researcher needs to describe how they sought the assistance of the supervisor, specialists in measurement and evaluation, and curriculum studies for example. Also, how they made constructive comments about items on the instruments and how the researcher effected the changes. The researcher needs also to describe how they subjected the instrument for pilot testing to participants similar to the sampled group. Further, the researcher needs to describe how they established rapport with the participants as well as how they collected and analysed data.

Methods of Data Collection

The researcher needs to describe how the instrument was administered. This entails stating whether the researcher

collected data personally or with the help of field assistants. If with the help of field assistants, the researcher needs to explain how they were recruited and coached – either by briefing or training – specifically on the purpose of the study and how they will collect the data. Further, the researcher should describe how the instrument was administered and retrieved; either, by mail, or on-the spot. The researcher needs to indicate also the time period within which data were collected.

Experimental Procedure

This is mostly for studies that employed true experimental design or quasi-experimental design. In this section, the researcher is to describe how they carried out the experiment. The researcher needs also to explain the treatment given to the experimental group and what happened to the control group.

Method of Data Analysis

Here, the researcher describes how the quantitative data were analysed: descriptive statistics - such as frequency counts, percentages, means and standard deviation. Then, inferential statistics - such as t- tests, z-tests, ANOVA, Regression, Factorial Analysis, Chi- Square, Pearson Product Moment Correlation, Spearman rho, just to mention a few. Again, in the case of a qualitative study, the researcher is to describe how the qualitative data were coded, interrelated and presented in themes.

Most importantly, the researcher is to indicate the statistical package or software (e.g., Statistical Package for the Social Sciences – SPSS – name, version/release number, NVivo, just to mention a few) that was used for the analysis. They should also describe variables that were compared, and critical alpha probability ($p<0.05$) value at which differences/relationships were considered to be statistically significant. The researcher

needs also to indicate how they presented the data – text/tables/figures.

Ethical Considerations

Here, the researcher is to describe how they adhered to ethical guidelines governing the conduct of academic research study. The researcher may focus on the following ethical issues: confidentiality, data handling, consenting process, respect for human welfare, protection against harm, just to mention a few.

PRESENTATION AND INTERPRETATION OF RESULTS

In this chapter, the researcher presents the results according to the research questions and/or hypotheses that guided the study. The results of the study are presented and interpreted with the values obtained. Tables containing different aspects of the results should be serially numbered and clearly titled. The main findings of each research question and hypothesis should be summarized in a sentence or two.

The three major sub-headings under this chapter are:

- ❖ Presentation of the Findings
- ❖ Interpretation of the Findings
- ❖ Summary of the Findings

The results should be reported in sufficient details so that the reader can see which statistical analysis was conducted and

why, in order to justify the conclusions. The researcher should note that results are usually presented in text, tables and figures. The calculations involved in the analysis are not presented here. They are shown in the appendices. Only summaries of such analyses in the form of tables, figures and texts are presented in this chapter.

Each table or figure should have a number and a title. The number should be in Arabic numeral and not in Roman numeral and the language usually used for the results is the past verb tense. For tables, the number and title should appear on top of the table whereas for figures, the number and title should appear below the figure (APA, 2020). It is advisable to present results according to the research questions or hypotheses to which they relate.

Note that, before writing the first draft of your result, it is necessary to figure out the result sets that can be left out. Include only results which are relevant to the question(s) posed in the introduction irrespective of whether or not the

results support the hypothesis (es). After deciding which results to present, attention should turn to determining whether data are best presented within the text or as tables or figures. Tables and figures (photographs, drawings, charts and graphs) are often used to present details whereas the narrative section of the results tends to be used to present the general findings.

Examples of Data Presentation following APA (2020)

Table 1
Academic Qualifications of Teachers and Principals

Qualification	**Teachers**		**Principals**	
	f	**%**	***f***	**%**
B.Ed.	8	88.9	2	66.7
M.Ed.	1	11.1	1	33.3
Ph.D.	-	-	-	-
Total	**9**	**100.0**	**3**	**100.0**

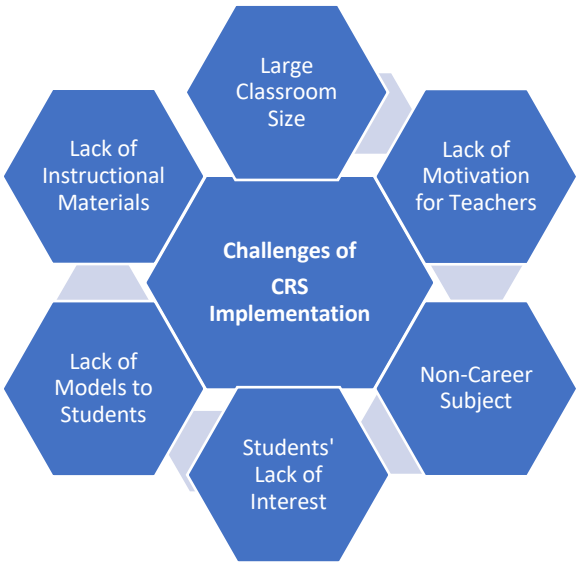


Figure 1: Challenges in the Implementation of Christian Religious Studies Curriculum for the Character Formation of Students

Table 2

Strategies for the Management of Truancy among Secondary School Students

S/N	Items	x̄	SD	Decision
1	Effective use of students' attendance register	2.23	.50	Disagree
2	Provision of recreational facilities	2.82	.87	Agree
3	Provision of counselling sessions	2.76	.57	Agree
4	Implementation of punishment	2.30	.89	Disagree
5	Provision of interactive classroom	3.60	.59	Agree
	Grand Total	**2.74**	**.56**	**Agree**

Table 3

t-test Analysis of the delayed post Test Mean Scores of Experimental and Control Groups

Group	N	$\bar{x}$	Df	T	P
Control	131	12.50	260	-3.379	0.001
Experiment	131	13.89			

At Significance of $P < 0.05$

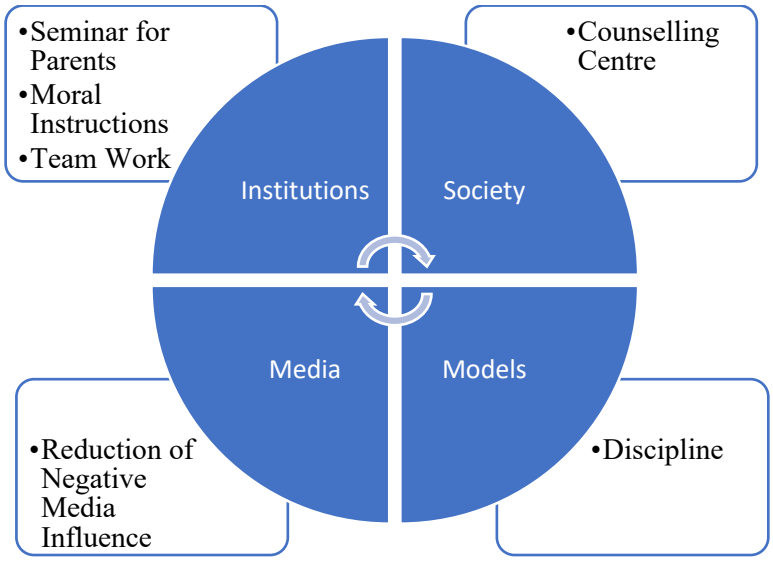


Figure 2: Collaboration of the Key Factors for the Character Formation of Students

DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

In this chapter, the researcher needs to focus on the following: Discussion of the principal findings from the study, conclusions, educational implications of the findings of the study, limitations of the study, recommendations for action, suggestions for further research, and summary of the study.

Discussion of the Principal Findings from the Study

Here, the researcher tries to advance possible interpretations and explanations to the study findings and tries to relate these to the findings of **previous works** and the **theory** that the current study hinges on. This section is usually backed with recent literature (of not more than five years old) on the topic area. According to APA (2020), you need to start this discussion section with a clear statement of the support or non-support for your original hypothesis (es), distinguished

by primary and secondary hypothesis (es). Here also, similarities and differences between your results and the work of other researchers should be used to contextualize, confirm and clarify conclusions.

The discussion section is always considered as the heart of the report. It serves to answer the question (s) posed in the introduction, explain how the results support the answers and how the answers fit in with existing knowledge on the topic. In order to make the message clear, the discussion should be kept as short as possible whilst still clearly and fully stating, supporting, explaining and defending the answers to the questions as well as discussing other important and directly relevant issues (APA, 2010).

Conclusions

This is based on the findings and discussion of the study. The researcher needs to refer to the research questions or hypotheses. The researcher needs to note that this section is not about summarizing the study. Drawing from Maina

(2012), in conclusion, the researcher needs to check and do the following:

1. What is the strongest and most important statement that you can make from your observations?
2. If you met the readers at a meeting six months later, what would you want them to remember about your study?
3. Refer back to problem posed and describe the conclusions that you as the researcher reached from carrying out this investigation, summarise new observations, new interpretations and new insights that have resulted from the present work.
4. Do not include new information in the conclusion. You need to base your conclusion solely on the findings of the study.
5. Do not repeat word for word the abstract, introduction or discussion.

Educational Implications of the Findings of the Study

Implications relate to what the findings suggest either in terms of theory or practice. Here, the researcher needs to indicate the educational value of the findings of the study to the society.

Limitations of the Study

In some institutions of higher learning, this section is found in chapter one, and it is merged with the "delimitations of the study." On the contrary, some institutions also do not factor in this in their research format. In this section, the researcher needs to express concerns on some of the factors that may have hindered them from getting robust information needed for the study. The limitations need to relate to encumbrances to the findings of the study. Examples may include: sample size, instrument for data collection, non-cooperation of the subjects of the study, political instability of the moment, pandemic, just to mention a few.

Recommendations for Action

In this section, the researcher needs to suggest actions which could be taken in the light of the findings to bring about improvements in the system or in the discipline. These recommendations should be closely tied to the objectives and findings of the study. As much as possible, they should answer these questions: what, why, by who, how, where, and when.

Suggestions for Further Research

The researcher in this section needs to help other researchers to think outside the box. This is because, the suggestions the researcher would give here are based on the findings of the study. That is, the researcher needs to present the gaps of knowledge from the current study and suggest them for further study.

Summary of the Study

This is based on the whole document. It should be very precise. The researcher needs to summarise the whole

document in one page maximum. The researcher needs to feature all the essential elements of the study; from chapter one to chapter five. This section has similarities with the Abstract; however, it is more detailed than the Abstract.

IN-TEXT CITATIONS AND REFERENCES

Introduction

In-text citations and references are part and parcel of any academic writing. This is where the researcher gives credit to those who contributed to the ideas they used for the study. In order to adhere to ethical principles in research, the researcher must duly acknowledge every source of information and reference them properly following the latest writing style of their department/faculty/school. In the Faculty of Education of Godfrey Okoye University, Enugu Nigeria for example, the recent writing style is the American Psychological Association (APA) 7th edition. The 6th edition is still being used by many institutions of higher learning and it is globally accepted. However, the 7th edition is trending.

In-Text Citations

When the researcher uses in-text citation, it simply tells the readers the source of the information used for the study. The

use of this source can come in the form of direct quote, and or summary/paraphrase. Therefore, in order to avoid academic fraud, that is plagiarism, it is necessary that the researcher cites all the ideas that they got from other sources. Here are some **basic styles** for in-text citations as adapted from APA (2020):

Table 4

Basic In-text Citations Styles

Author Type	**Parenthetical Citations**	**Narrative Citations**
One Author	Water is life (Osuji, 2023).	Osuji (2023) explained that water is life.
Two Authors	Water is life (Osuji & Oluoch-Suleh, 2023).	Osuji and Oluoch-Suleh (2023) explained that water is life.
Three Authors or more Authors	…(Osuji et al., 2023)	Osuji et al. (2023)…
Group Author with Abbreviations – first citation	…(Federal Republic of Nigeria [FRN], 2014)	Federal Republic of Nigeria (FRN, 2014)…
Group Author with Abbreviations – Subsequent citations	…(FRN, 2014)	FRN (2014)…

N/B*: Please visit APA (2020, 7th Edition, pp. 253-278) for more details on in-text citations especially on when you use a direct quote and put it in parathesis "…" and when your quotes are more than 40 words. Here, you need to indicate the page numbers.*

References

This is considered as part of the main body of the report. It is the list of the sources which were actually cited in the work. It acknowledges the work of previous scholars and provides a reliable way to locate it. An accurate and properly constructed reference list provides credibility to the written work it accompanies. Following APA (2010), and supported by Lida et al. (2020), you need to start the reference on a new page. The word *References* should appear in upper case and lower-case letters and should be centred. You also need to double-space all reference entries. In addition, a single entry remains double-spaced. At the end of the research process, the researcher needs to compile the list of all sources consulted in the course of the work. This is called referencing.

The American Psychological Association (APA 7th Edition) is currently recommended and used in Education and Social Sciences. In this style of referencing, the author's surname comes first, followed by the initials of their other names, the

year of publication in bracket, the title of the book or article, then the publisher. If a periodical (journals, newspapers, magazines, etc.) is involved, the reference will include the surname and initials of the author, year of publication, title of the article, name of the periodical, volume, issue number, and pages. The compilation of consulted sources at the end of the research report is done alphabetically.

Basic Rules

The following according to APA (2010) and supported by Lida et al. (2020) are basic rules to your reference list;

1. Arrange your reference list in alphabetical order of the author's last names.
2. If there is more than one work by the same author, order them by publication date – oldest to newest (therefore, a 2022 publication would appear before a 2023 publication).

3. If there is no author, the title moves to that position and the entry is alphabetised by first significant word, excluding words as “A” or “The.”
4. Use “&” instead of “and” when listing multiple authors of a source.
5. The first line of the reference list entry is left-hand justified, while all subsequent lines are consistently indented.
6. Capitalise only the first word of the title and of the subtitle, if there is one, plus any proper names – that is, only those words that would normally be capitalised.
7. Italicise the title of the book, the title of the Journal/serial and the title of the web document.
8. Do not create separate lists for each type of information source. Books, articles, web documents, brochures, etcetera, are all arranged alphabetically in one list.

Formatting List of References

Lida et al. (2020) identified the following key points in formatting your list of references:

1. Your references should start with the word “References” (without quotation marks) centered at the top of the page. This word should be bolded, but *neither* underlined nor written with capital letters. It should look *exactly* like this: References
2. References should be listed in alphabetical order by whatever appears first in each entry.
3. Your references should be formatted the same as the rest of your paper with 1-inch margins.
4. Your references should be double spaced all the way through. This means that each line of each entry should be double spaced, not just between entries.
5. No extra line space should be inserted between entries.

6. Although APA does not have a specific required font, fonts that are difficult to read or not commonly accessible on most computers should be avoided. Typically, instructors recommend using Times New Roman 12, or Calibri 11/ Arial 11/ Lucida Sans Unicode 10/ Georgia 11.
7. Your references should be formatted with a hanging indentation set to 0.5 inches.

Order of Referencing

Note this order in your referencing:

- ❖ Who – wrote/edited it – author or editor
- ❖ When was it written – date
- ❖ What is it – title of book, title of the article & serial/journal, title of the web document
- ❖ Where was it published (Books) – publisher's name.
- ❖ Where was the article located (Serial/journal) – volume, issue number and page numbers of the article.

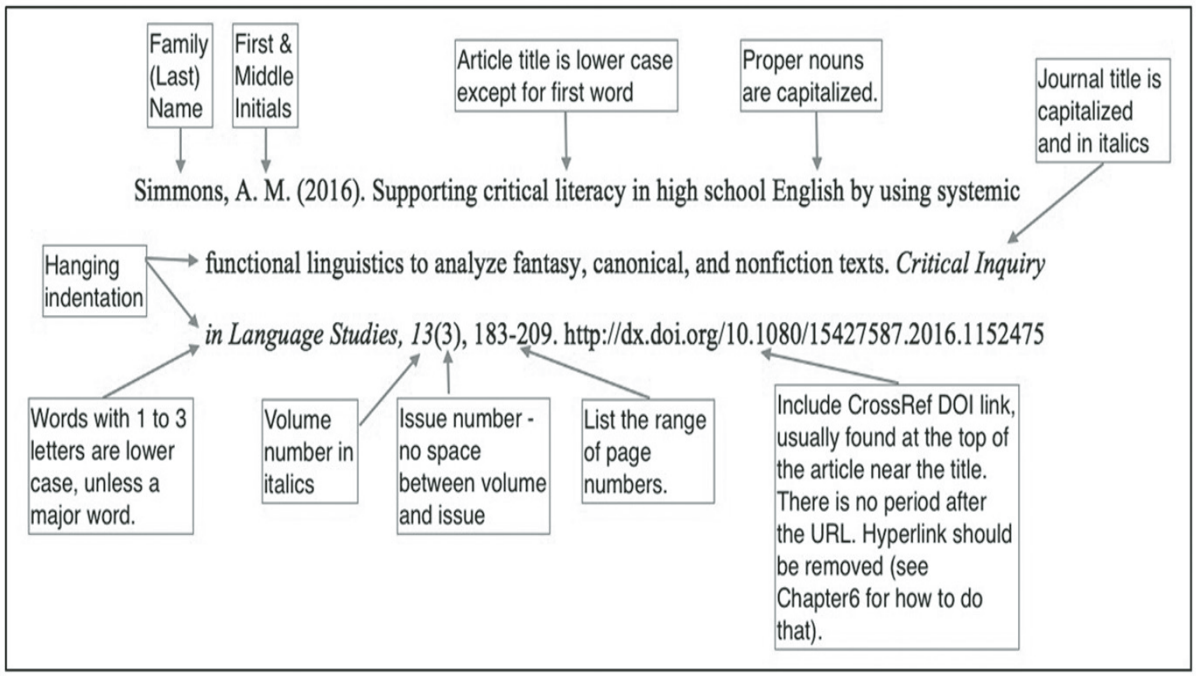
- ❖ DOI number or CrossRef link for an academic journal source.
- ❖ Where you located it (internet sources) – URL – web address.

N/B: Refer to APA (2020) for more information on referencing please!

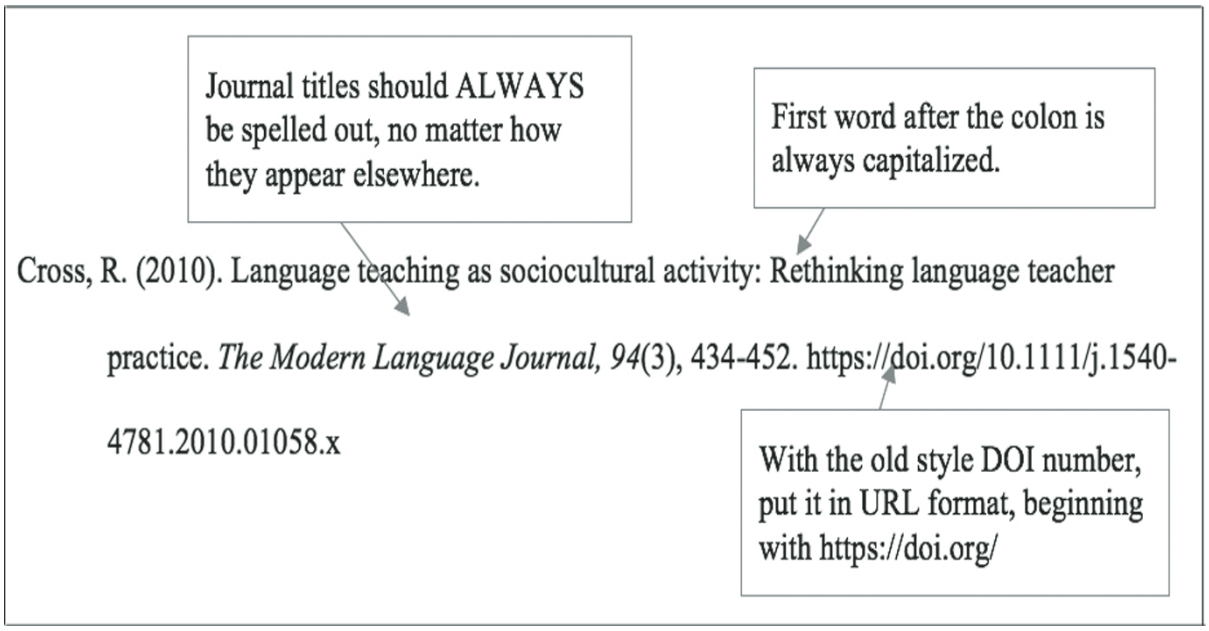
Here are some examples of order of referencing as was detailed by Lida et al. (2020, p. 40-50):

Academic Journal Articles

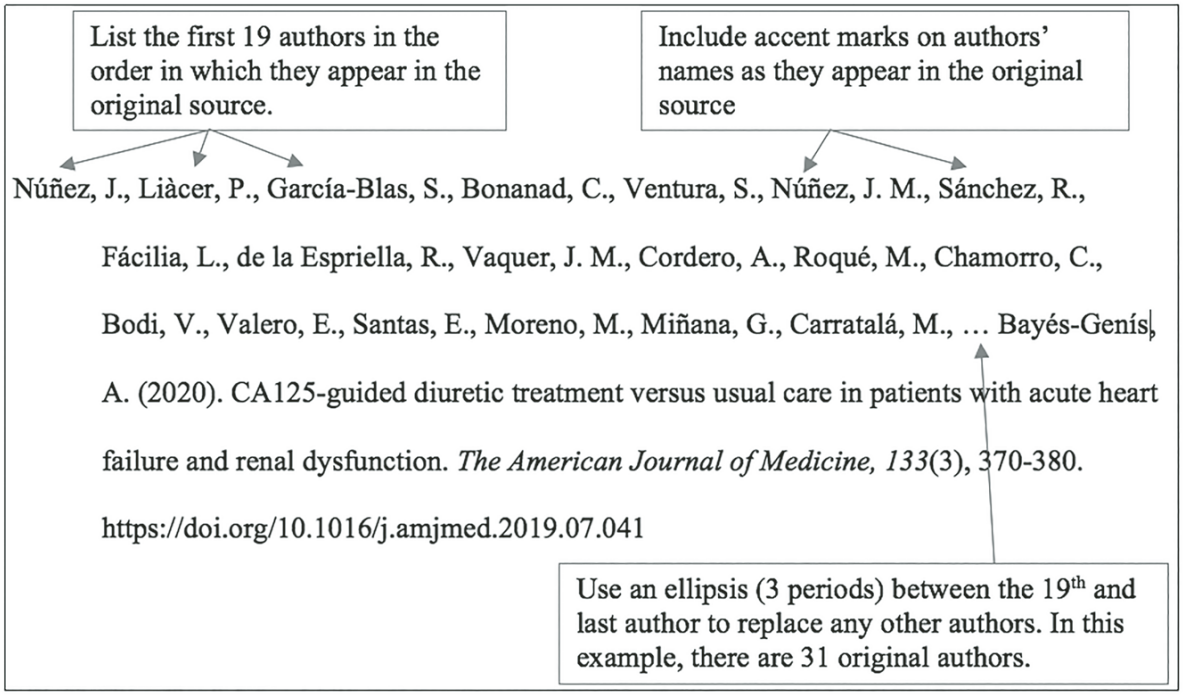
One Author with Cross Ref DOI



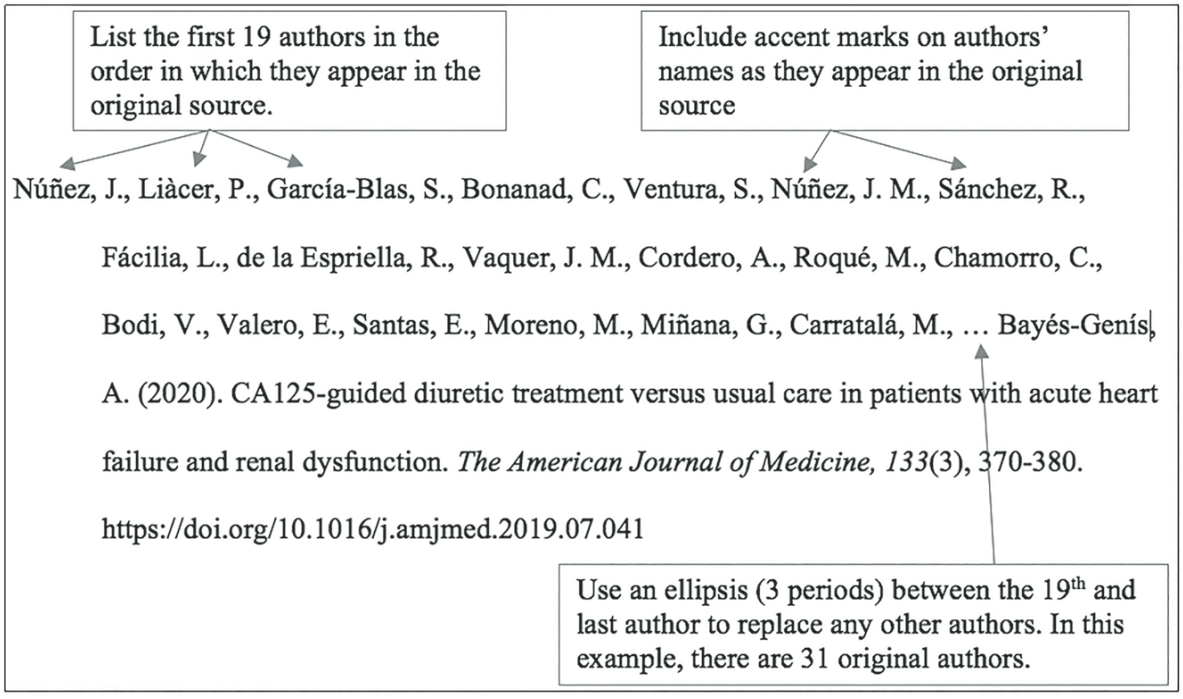
One Author with Old Style DOI



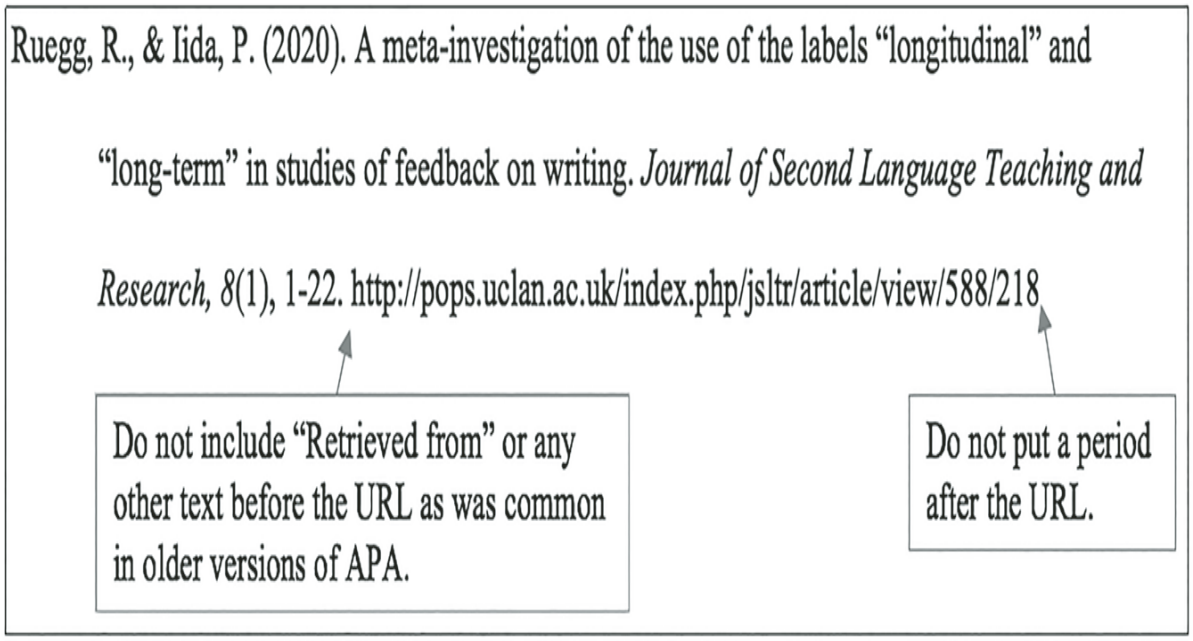
Two to Twenty Authors



Twenty-One or More Authors

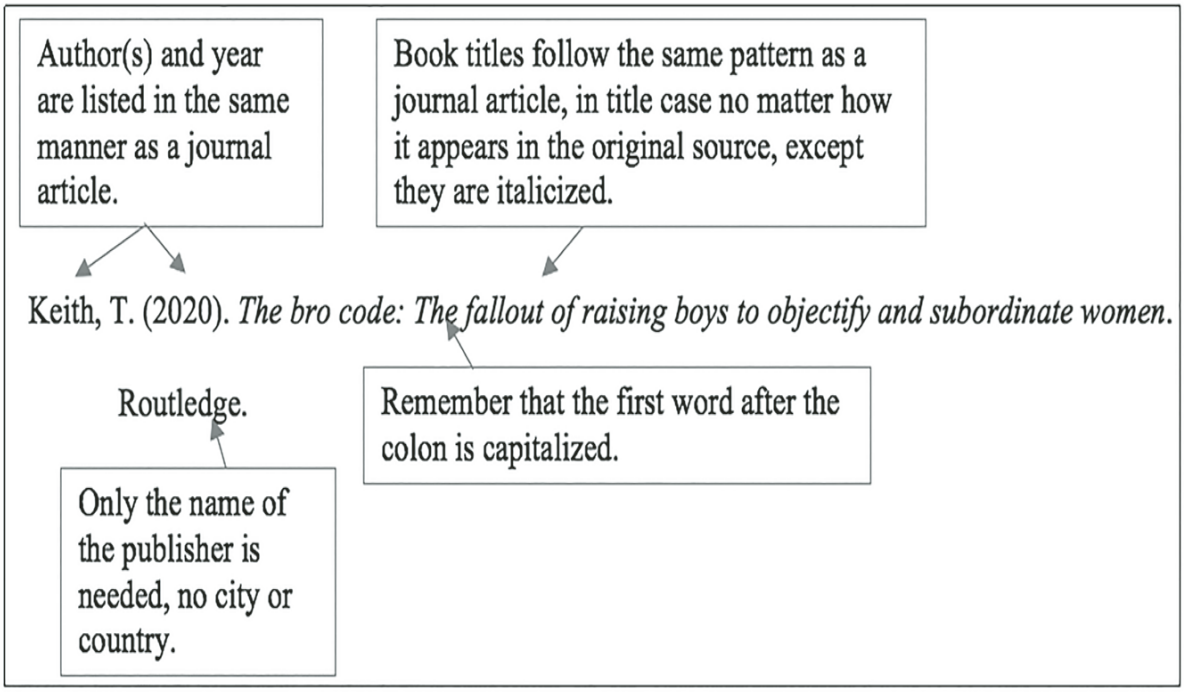


An Online Journal Article (with non-DOI URL)

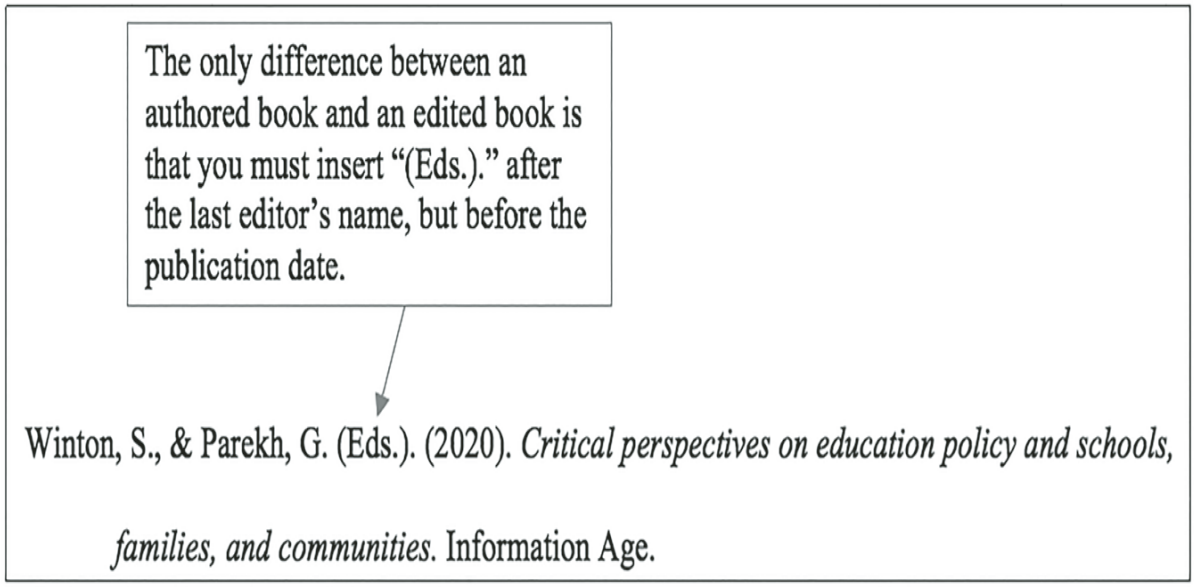


Books

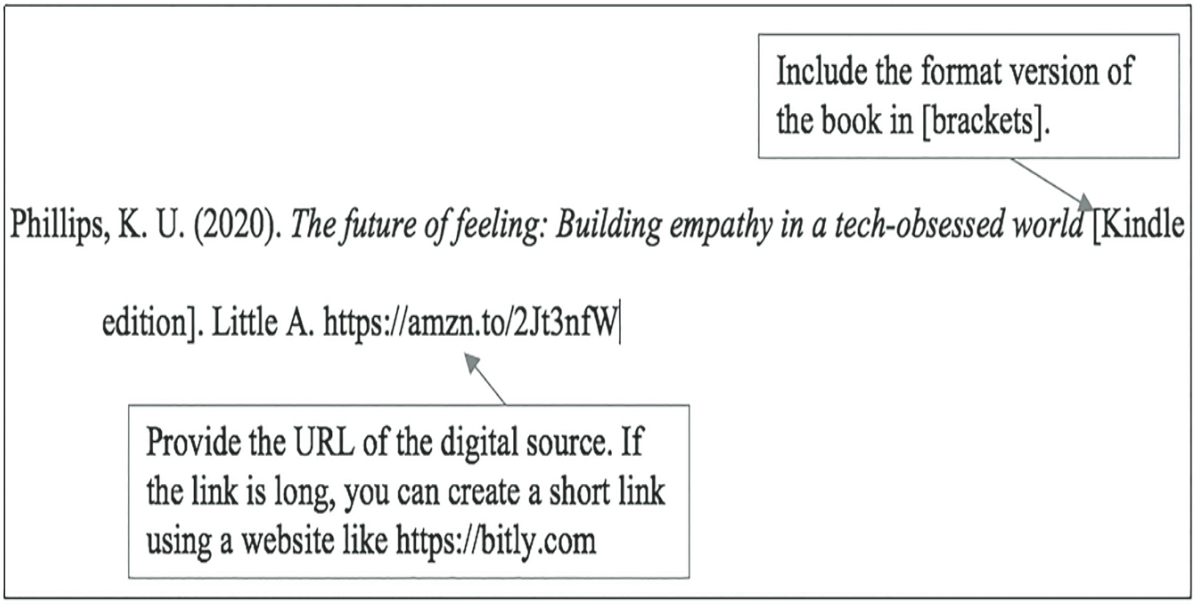
An Authored Book



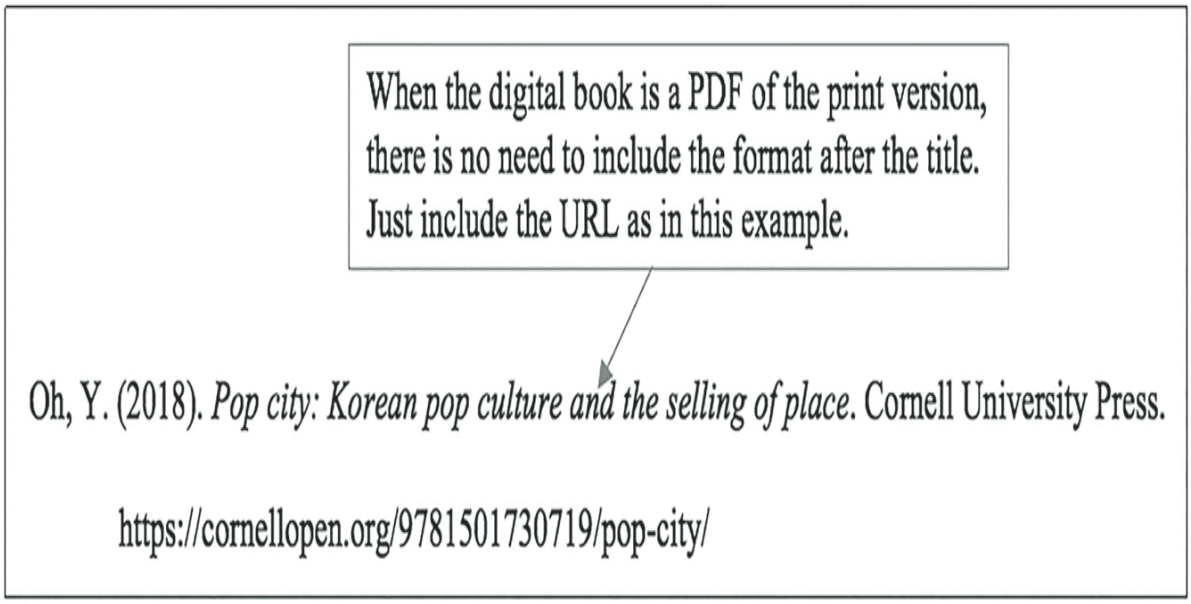
An Edited Book (Whole Book)



A Digital Book for a Specific Electronic Device

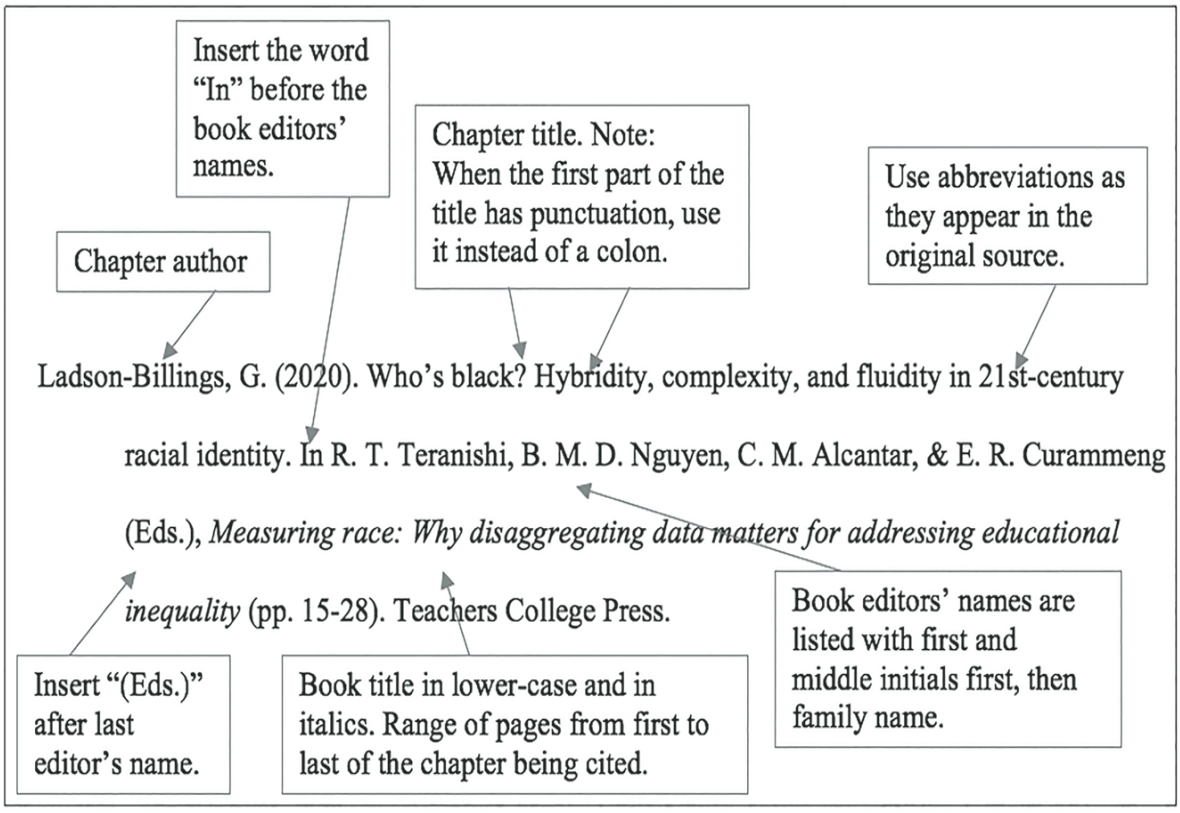


An Online Book



Book Chapters

A Chapter in an Edited Book with different Editor(s) and Author(s)



SUPERVISOR, SUPERVISEE & SUPERVISION LOGBOOK

Role of Supervisor

The supervisor is at the centre of the whole research process of the student. In fact, the student cannot submit his or her research work to the faculty for examination without the consent of his or supervisor. Hence, the role of the supervisor in the student's research work cannot be overemphasized. With this in mind, therefore, the supervisor has the following roles:

1. Facilitates Supervisees' Empowerment

- ❖ Gives the supervisee appropriate independence and freedom to do their work.
- ❖ Involves the supervisee in improving their learning ability.
- ❖ Allows the supervisee to make mistakes and assists them in learning from the mistakes.

2. Engages in Effective two-way Communication with Supervisees

- ❖ Gives the supervisee a clear understanding of how their work fits into the overall research space.
- ❖ Promptly informs the supervisee when there is an important issue that affects the research work.
- ❖ Encourages and accepts constructive feedback from the supervisee.
- ❖ Keeps the supervisee informed about recent evidences which may be important in the research work.
- ❖ Assists the supervisee in setting objectives/hypotheses of the study.

3. Provides Effective Direction

- ❖ Plans out work in advance.
- ❖ Offers the supervisee effective ideas for solving research related problems.
- ❖ Gives guidance on research techniques and other necessary readings.

- ❖ Revises the supervisee's writings when new information suggests that change is needed.

4. Establishes a Working Atmosphere of Support, Concern, and Fairness

- ❖ Instils confidence and trust in the supervisee by modelling appropriate behaviours.
- ❖ Deals effectively with poor performance from the supervisee.
- ❖ Understands and supports the supervisee.
- ❖ Assures a work environment that is free of intimidation and harassment.
- ❖ Keeps a professional distance.
- ❖ Ensures that the supervisee's research work follows the institution's guidelines.

In summary, it good to note that the role of the supervisor is to guide the supervisee towards the production of their academic writing by discussing each part of the process. The

supervisor will advise the supervisee on relevant areas of literature, help them to develop their thought on the topic, give guidance on the development of chapters and on the conventions of academic writing. However, the supervisor will not act as a proof reader of the supervisee's work. The supervisee needs to meet a specialist to edit their work.

Responsibility of the Supervisee

It is the responsibility of the supervisee to take the initiative throughout the academic research writing process. The supervisee needs to raise problems or difficulties, and discuss issues arising from feedback from the supervisor. Then, the supervisee needs to take appropriate action and maintain the progress of work as agreed with the supervisor.

More so, the supervisee needs to:

- ❖ Submit type-written drafts for discussion with the supervisor.
- ❖ Keep appointments.
- ❖ Inform the supervisor if a meeting is not possible.

- ❖ Maintain a schedule of work as agreed with supervisor.

Supervision Logbook

The logbook is an official record of contacts between the supervisee and the supervisor. The supervision logbook records the progress of the supervisee, from the commencement of research until its completion. The supervisor and the supervisee are required to retain logbooks and record each meeting regarding the progress of research. It must be produced at annual assessment presentations and must be available for review at any stage during the year as appropriate. This logbook also requires the supervisee to provide information on the dissemination of any outputs from the research programme in terms of publications and presentations the supervisee makes to both internal and external audiences.

Here is a sample of a Supervision Logbook:

ADMINISTRATIVE INFORMATION	
Name of University	
Name of Student	
Matric Number	
Programme	
Department	
Faculty	
Phone Number	
Email Address	
Research Project Title	
Research Commencement Date	
Research Completion Date	
Name of Supervisor	
Phone Number	
Email Address	
MEETINGS	
Date:	
Progress Since Last Meeting:	
Material Submitted:	
Agreed Tasks for next Meeting:	
Comments:	
Date of Next Meeting:	
Signature…….. (Supervisee)	Signature……. (Supervisor)

CONTENTS OF SUPERVISION AND PRESENTATION OF REPORT

Contents of Supervision

It is necessary for the supervisor to mentor and guide supervisees on the general and essential aspects of the research study. The supervisor needs to focus, but not limited to the following contents:

1.	**INTRODUCTION (15 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Is the research topic appropriate and relevant for the subject and level of understanding? Does the student describe circumstances and reasons that informed their choice of the topic?					
b.	Does the student show that there is gap in knowledge or will the question asked add to further understanding of the study? Is the research problem clear? Are the research objectives/questions/hypotheses specific and appropriate? Are the hypotheses testable?					
c.	Does the problem have contemporary significance? Does the student fully explain the theoretical and practical significance of the study?					

	Does the student justify the beneficiaries of the study when outputs are disseminated?					
2.	**REVIEW OF RELATED LITERATURE (10 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Does the student present an up-to-date review of literature related to the study?					
b.	Are there any relationships between the literature reviewed and the research problem?					
3.	**RESEARCH METHODS (15 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Is the design of the study appropriate and justified? Is the sample size well determined? Is the sampling procedure well explained? Is the sample adequate and representative?					
b.	Are the sections of the instruments for data collection well described? Are the data collection procedures well explained?					
c.	Are the research instruments appropriate and of good quality (Validity & Reliability – Quantitative Research / Trustworthiness of the study – Qualitative Research).					
4.	**PRESENTATION AND INTERPRETATION OF RESULTS (15 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Any sign of the appropriateness of the analysis to the data presented and complexity of data analysis procedures?					

	Are the data accurate?					
b.	Are the findings relevant to the research objectives/questions / hypotheses?					
c.	Does the student interpret the findings of the study appropriately? Does the report provide adequate information? Are the results presented in a manner that makes them understandable?					
5.	**DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS (10 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Does the student show evidence of scholarly discussion of the findings?					
b.	Are the conclusions based on the findings of the study? Are the recommendations of any use to decision-making?					
6.	**ORGANISATION OF THE REPORT (10 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Is the style of writing and referencing appropriate?					
b.	Does the student exhaustively follow the research format approved by the department/faculty/school? Are the preliminary pages outlined appropriately?					
7.	**PRESENTATION OF THE REPORT (Non-Technical Aspect) (25 MARKS)**	**5**	**4**	**3**	**2**	**1**
a.	Presentation style					

b.	Personal appearance, confidence and voice projection					
c.	Effective use of audio-visual educational resources					
d.	Mastery of the research work (Questions and Answers)					
e.	Timing					

_____ _____

Mark: Grade:

Basic Skills for the Presentation of Research Report

As you face the panel of examiners for the presentation or defense of your research work, the chairperson may ask you to present your work within 10 or 15minutes. Here therefore, skills in public speaking become imperative. The following skills may help you present your research report with ease:

1. Greet the panel of examiners; starting from the chairperson to the audience present.
2. Introduce the title of your study, your name, your registration number and your department.
3. Project your voice as you present your work convincingly.

4. Make eye contact with your audience.
5. Stand and use hand movement to help you deliver the presentation.
6. Always indicate what will follow later in your presentation.
7. Have interesting slides with clear and brief content.
8. Refer to specific slides in your presentation.
9. Indicate that your presentation is coming to an end.
10. End your presentation and invite questions.

PUBLICATION OF THE RESEARCH REPORT

Your research work becomes significant only when it is published in a reputable academic journal. As a researcher therefore, in order for the energy you put in doing your research to have value, you need to publish your research report. This will enable the different stakeholders the study is directed to make proper decisions based on the study recommendations.

Elements of an Academic Journal Article

The authors have observed some of the following as elements or outline of an academic journal article:

Title – This contains the major variables of the study. We recommend that this should be between 8-15 words. However, different journals have their format. Therefore, each journal guides researchers of the number of words needed.

Abstract - The abstract contains a short summary of the article contents as well as a description of the objectives, method, result and conclusion of the study. You write the abstract after having completed the paper and having chosen the final title. The abstract and the title are the most read parts of your article and to attract attention to your paper; that is, they should be eye-catching and informative at the same time. We recommend that the abstract should be between 150-250 words. However, each journal guides researchers on what to do.

Keywords (or subject words) - These identify the contents of the article. They are also given in the abstract. The keywords should be between 6-8 words.

Introduction - This is a general description of the background to the research. The statement of the problem, purpose (general and specific) and research questions are presented here, together with the scope and delimitations of the

study. The introduction should be between 1000-2000 words. However, each journal guides the researchers on what to do.

Methods - Descriptions of the method(s) used in doing the research should be so detailed and precise that stages in the research process could be followed and reproduced by the reader. The methods ought to be reasonable for and appropriate to that which is being studied. We also recommend that the methods should be between 500-1000 words. However, this is left at the discretion of each journal.

Results/Findings - Here the results of the research are presented. Important data are either given textual form or by using tables and figures. Even unexpected or negative results are presented. Firstly, the narration order is pedagogical not chronological for the reader to catch the ideas. Secondly, with the same aim paragraphs are top-down embodying one concept each. Finally, the main message from the first sentence of each paragraph is further justified with proved data and provided with alternative explanations. The last,

but not the least is to limit the range of mentioned results with those crucial for your argumentation. We recommend that the results should be between 1000-1500 words. However, each journal guides the researcher.

Discussion - The discussion is an assessment of the results. Methodological considerations as well as the way in which the results compare to earlier research in the field are discussed. We recommend that the discussion should be between 1000-1500 words. This however depends on the guidelines of a particular journal.

Conclusions and Recommendations - These are drawn from the findings of the study. The researcher is to bring out salient points from the findings and give concrete recommendations to the stakeholders involved in the study for concrete action.

References - All documents mentioned in the article should be included in the reference list, so that the reader is able to refer

to the original sources. The references must correspond to the format of the Journal.

Appendices – Here, the researcher attaches as appendices all the materials relevant to the study that could not appear on the main study. Some of the items include: tables and figures, charts, research permits, consent letters, just to mention a few.

EPILOGUE

Passion for academic research needs to be in every student and lecturer of institutions of higher learning. There are varied problems in the education sector that need solution through empirical studies. This work is a good piece for upcoming researchers and those already in the field of research. As a requirement for the award of any degree in the university, students' research work need to be of quality and action-oriented. Therefore, supervisors who are key stakeholders in the education sector need to play their roles effectively. This is because proper guidance of students on their research work will lead to solutions to many educational problems in the society. Hence, the need for this book: Educational Research Supervision – A Guide for Supervisees and Supervisors.

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APPENDICES

COVER PAGE

AVAILABILITY AND UTILIZATION OF BIOLOGY EQUIPMENT FOR PRACTICAL IN SECONDARY SCHOOLS IN ENUGU STATE, NIGERIA

BY
NAME OF STUDENT
REGISTRATION NUMBER

DEPARTMENT OF EDUCATIONAL FOUNDATIONS
FACULTY OF EDUCATION
GODFREY OKOYE UNIVERSITY
ENUGU, NIGERIA

JUNE, 2023

TITLE PAGE

AVAILABILITY AND UTILIZATION OF BIOLOGY EQUIPMENT FOR PRACTICAL IN SECONDARY SCHOOLS IN ENUGU STATE, NIGERIA

BY
NAME OF STUDENT
REGISTRATION NUMBER

A PROJECT/DISSERTATION/THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL FOUNDATIONS
FACULTY OF EDUCATION
GODFREY OKOYE UNIVERSITY
ENUGU, NIGERIA

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF EDUCATION/POSTGRADUATE DIPLOMA IN EDUCATION/MASTER OF EDUCATION/DOCTOR OF PHILOSOPHY IN (SPECIAL AREA-BIOLOGY/CURRICULUM STUDIES AND INSTRUCTION)

JUNE, 2023

APPROVAL PAGE ***(Postgraduate)***

THIS DISSERTATION/THESIS HAS BEEN APPROVED FOR THE DEPARTMENT OF ……., FACULTY OF EDUCATION, GODFREY OKOYE UNIVERSITY ENUGU, NIGERIA
BY

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SUPERVISOR HEAD OF DEPARTMENT

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EXTERNAL EXAMINER ---------- DEAN OF FACULTY
DATE

APPROVAL PAGE ***(Undergraduate)***

THIS PROJECT HAS BEEN APPROVED FOR THE DEPARTMENT OF ……., FACULTY OF EDUCATION, GODFREY OKOYE UNIVERSITY ENUGU, NIGERIA
BY

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SUPERVISOR HEAD OF
DEPARTMENT

DEAN OF FACULTY

DATE

CERTIFICATION

I (Full Name of Student)----------a Postgraduate Student in the Department of ----------and with Reg. No.----------have satisfactorily completed the requirements for course and research work for the degree of ----------. The work embodied in this dissertation/thesis is original and has not been submitted in part or full for any other Degree of this or any other University.

---------- ----------
Signature of Student Date

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