

**Effective Writing of Research Reports in Education**

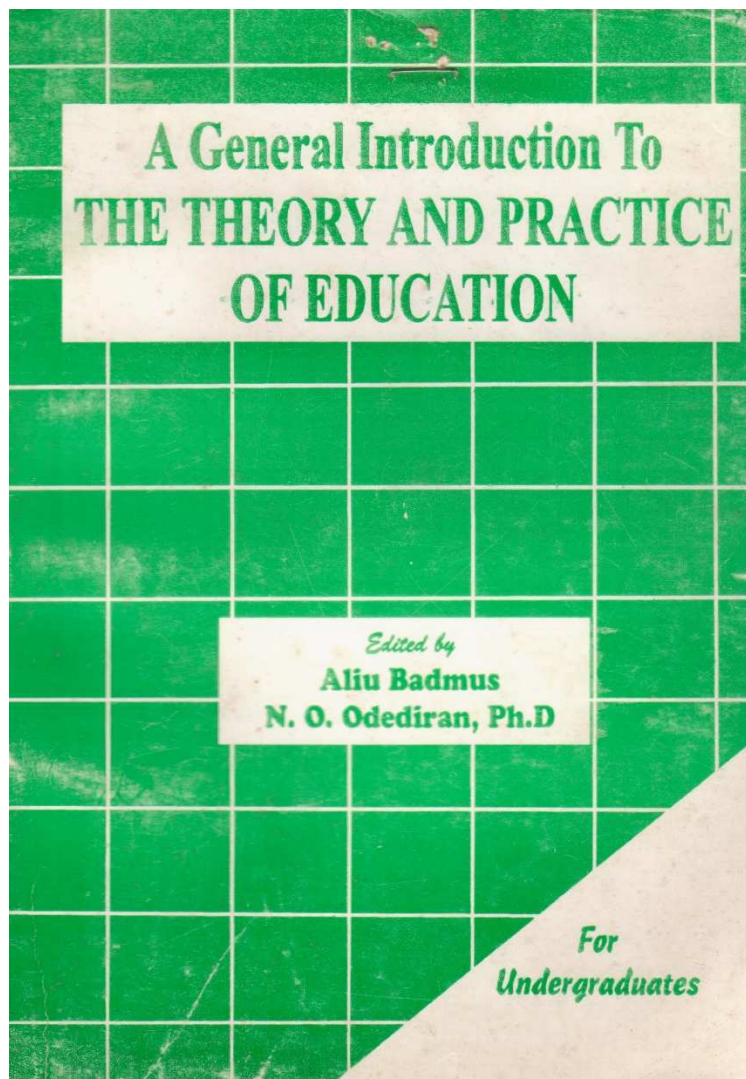
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## **Introduction**

In most, if not all Nigerian tertiary institutions, there is much emphasis placed on the need for professionals to acquire research skills. To this end, there is a course in educational research that is a basic requirement for certification of graduates in tertiary institutions of learning. The thought of having to write a research report scares many students in Nigerian institutions of learning. This is due to the fact that many of them perceive research as a very difficult task. However, this is not so. All it requires to carry out researches, is to follow the procedure already set out for conducting researches. Thus, this write up attempts to acquaint students with what they are expected to do in each chapter of the research report.

### **Writing a Research Report Introduction:**

Educational research can simply be defined as a scientific way of finding plausible solutions to problems in education. It provides those in the education industry with effective means of attaining educational goals. Thus, it can be said that most researchers who conduct educational researches are interested in solving particular problems in education, which would lead to effective teaching and learning exercise.

In writing a research report, many students form the habit of just picking up copies of old projects written so many years ago and copying them without any change. Unfortunately, many of the things that are blindly copied are either wrongly written or have become obsolete. Generally, in educational research there are five main components which are:

- |               |   |
|---------------|---|
| Chapter One   | - Introduction                              |
| Chapter two   | - Literature Review                         |
| Chapter three | - Methodology                               |
| Chapter four  | - Results                                   |
| Chapter five  | - Discussion, Conclusion and Recommendation |

Before the main text, there are some pages referred to as the preliminary pages. They are the title page, certification page, copyright page, dedication, acknowledgement, abstract, table of contents, list of tables and list of figures.

## **Unit 1: Preliminary Pages**

### **Title Page**

On the title page, the researcher is expected to write the title of the work, the name of the supervisor, the qualification (e.g. type of degree), the department and the

date. It should be noted that only academic appellations should be used for supervisors. Where the supervisor is a Mr. or Mrs. and not a Doctor or Professor, only his/her initials and surname should be written. Example:

<p style="text-align: center;">EFFECT OF SEX ON STUDENTS' ACADEMIC ACHIEVEMENT IN KWARA STATE SECONDARY SCHOOLS BY ADEDROYIN EDMUND OLAYIWOLA (Mat No.: 93/8461) UNDER THE SUPERVISION OF DR. O. V. AJISAFE A Research Project Submitted In Partial Fulfillment of the requirements For The Award Of The Nigerian Certificate In Education (NCE) In The DEPARTMENT OF EDUCATION FOUNDATIONS SCHOOL OF EDUCATION, KWARA STATE COLLEGE OF EDUCATION, ILORIN. July, 1996</p>
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**Certification Page:**

On the certification page, the researcher is expected to write his/her name, supervisor's name, and the Head of Department's name. Spaces should also be provided for the External Examiner to sign. This is to indicate that the study has been done by the student. Example:

CERTIFICATION

This is to certify that this study was carried out by

ELIZABETH ADUNOLA

in the Department of Guidance & Counselling,  
Faculty of Education

University of Ilorin, Ilorin, Kwara State.

.....

AJISAFE, O. A.(Ph.D)

(Supervisor)

.....                      .....

Signature of Head of Department    Signature of Dean of Education

.....

Signature of External Examiner

**Dedication Page**

This page is not compulsory. It depends on the choice and interest of the researcher. Where he/she chooses to have it, it is usually where one dedicates the work to someone of importance. In most cases, it is always somebody who occupies a special place in the heart of the researcher e.g. Late parents, husband, wife, children etc. It should be noted that when a piece of work is dedicated to three, four or more people, it becomes monotonous and meaningless.

**Acknowledgements**

It is on this page that the researcher wishes to show appreciation to all those who have helped him/her in one way or the other, towards the conduct and completion of the research work; such as the names of the supervisor, teachers and all those who guided and provided one form of assistance or the other. Again, it should not be monotonous.

**Abstract**

The abstract is supposed to be a brief summary of what the report contains such as the problem, methodology, instrument used and the statistical method used. The abstract should not be lengthy. For an NCE or a first-degree project, a minimum

of 200 to 250 words is recommended.

## Unit 2: Chapter One

After the preliminary pages, the next section is chapter one, and it contains:

- 1.1 - Background to the study;
- 1.2 - Statement of the problem;
- 1.3 - Purpose of the study;
- 1.4 - Scope/Delimitation of the study; and
- 1.5 - Definition of major terms and variables.

### 1.1 Background to the study

Here, the researcher is expected to explain what aroused his/her interest in the study and the need for the study. Many students make the mistake of writing out the history of the subject under study. This is not supposed to be so! A brief background information should be given to introduce readers to the subject under study. For example, for a topic like "Effect of Examination malpractices on students' Academic Achievement", the researcher may just briefly talk about how examination malpractices has being on the increase in Nigerian tertiary institutions and how the Federal Government, teachers and parents have been greatly concerned.

### 1.2 Statement of the Problem.

It is not always easy for some researchers to state the problems of their studies simply, clearly and completely.

The questions that should be addressed here are: What is it that I am to investigate? "Why am I carrying out the study"? etc. it is supposed to elaborate upon the information implied in the title of the study. For example, for a topic like "Effect of indiscipline on students' academic achievement in Kwara State Secondary Schools" the statement the problem will be!

- The identification of the effects or contribution of indiscipline the falling standard of education or poor performance.

### 1.3 Purpose of the Study

Here, the researcher is expected to state the worth and value of e research work. The contributions that the study would make in the field of education could also be discussed in this section.

#### **1.4 Scope/Delimitation of the Study**

All the researcher needs to do here is answer such questions as:

On what selected aspects of educational problem would the study be focused?

In essence, this section refers to areas of what population and area the study would cover.

#### **1.5 Definition of Major terms/Variables:**

Terms that have a unique use in the study should be explained the researcher; particularly, terms that have different meanings to different people. All that needs to be done is to explain the context by which the terms would be used. The major variables in the study should be defined. Also terms that people are not familiar with, should also be defined.

### **Unit 3: Chapter Two Literature Review**

The review of related literature is as important as any other aspect of the research work.

- It entails an identical and analysis of documents containing information that are related to the research problem and its main purpose is to determine what has already been done that relates to the problem under study.
- It goes a long way to tell the researcher what has already been done and what is left to be done.

The different documents that can be reviewed include periodicals, journals, abstracts, reviews, textbooks and research reports.

In this section, the researcher is expected to break the broad topic into simpler units, and these units would be reviewed one after the other. For example, where the research topic is the “Effect of Examination Malpractices on Students’ Academic Achievement”, the researcher would be expected to split the topic into sub-units such as:

- 2.1 Concept of Examination Malpractices
- 2.2 Types of Examination Malpractices
- 2.3 Effect of Examination Malpractices on students’ academic achievement.
- 2.4 Management of Examination Malpractices

Some researchers have a problem of determining which articles are related enough to their topic. To overcome this problem, a researcher needs a very high

sense of judgement. As much as possible, a researcher should avoid:

- a) including everything he/she finds;
- b) carrying out a hurried review;
- c) relying too much on secondary sources.
- d) over looking sources such as newspapers and popular magazines which contain articles on educational topics.

As much as possible, the literature review of any research report should cover all the variables in the study.

In this section of the research report, there is no hard and fast rule as to the number of such units that the chapter should contain. It is the broadness of the topic that would determine the size of the chapter. Some researchers may have not more than four sub-units, while others may have up to six or seven. Essentially, every sub-unit must be relevant and thoroughly reviewed by the researcher.

After the literature review, there should be the "Appraisal of the literature Review". Here, all the works reviewed would be briefly highlighted to show their relatedness to the study.

The Research hypothesis or Questions should be listed at the end of this chapter. Though some researchers prefer to have hypothesis/Research Questions in chapter one or three, it is always better to have it after the literature review because it is only after this has been done, that the researcher would have an in-depth knowledge of what form the study would take.

### **Formulating Hypothesis:**

Hypotheses can be simply defined as intelligent guesses that suggest the likely solution to a problem. Some experts in research are of the opinion that researchers should start from hypotheses formulation since hypotheses show the path to be followed to the researcher. Where cause and effect relationships are to be established, it is very necessary to have hypothesis. A hypothesis is therefore the most specific statement of a problem.

It is very important to note that it is only after literature has been reviewed that meaningful hypotheses can be formulated; since it is based on implications of previous studies.

To formulate very meaningful hypotheses, there are certain facts that should be taken into consideration and these are:

- 1) It is only after literature has been reviewed that hypotheses can be

successfully formulated.

- 2) It should follow from previous research studies and lead to future researches.
- 3) Researchers should have more than one hypothesis.
- 4) All terms used in the hypothesis must be defined in the research work.
- 5) To make all hypotheses testable, they must be related to the data that are to be collected.
- 6) All hypothesis formulated must be related to the research problem.
- 7) Hypotheses should be testable using statistical procedures.

It is also important to note that it is not all research topics that require the use of hypothesis. Instead of hypothesis, one might use research questions depending on what the nature of the study is. Many students muddle up their work by making use of hypotheses, where it is in it unnecessary.

In order to test research hypotheses, the researcher should determine the sample, measuring instruments, design and procedure WHICH will enable him or her to collect the required data. It is the collected data that would then be analysed to determine the validity of the hypothesis.

### **Unit 3: Chapter Three**

This chapter consists of the following sub-units.

- 3.1 Research type or research design;
- 3.2 Sample and sampling technique;
- 3.3 Instrumentation;
- 3.4 Procedure for data collection; and
- 3.5 Procedure for data Analysis.

### **Research Type or Research Design**

The researcher is expected to state the type of research he/she is undertaking. It could be either historical or correlational study or any other. The researcher should show how the study falls under whichever type he/she has chosen. That is, if it is correlational, define correlational study and show briefly what makes your work to be correlational.

### **Sampling and Sampling Technique:-**

On many occasions, the population is always too large and-so there is the need to draw out from the population, what is referred to as sample. A sample is a fair



representation of the entire population. Thus, under this section, the researcher is expected to describe clearly the sample being used for the study and the sampling technique that was used to draw out the sample from the population. There are different sampling techniques that could be used such as the random, stratified and the use of table of random numbers etc. It is the nature of the study that determines the technique to be used.

### **Instrumentation**

The instrument used for the study must be stated clearly. Any instrument that is not valid and reliable may mar the study. Thus, it is expected that the researcher at this point would explain how the validity and reliability of the instrument were determined.

### **Procedure for Data Collection**

The researcher should describe how he/she administered the instrument used to collect relevant data. It must however be noted that the more the researcher personally administers his/her instruments, the more reliable his/her data would be. Relying heavily on research assistants is not always advisable. Apart from the fact that many of them are dishonest, the researcher has an additional advantage of being able to observe events while administering the instrument.

### **Procedure for Data Analysis**

The researcher at this point should state the statistical method used and whether the data were analysed manually or on the computer. A wrong choice of statistical method would mar the study and make it very confusing. Thus, the researcher should endeavour to find out which statistical method is the best for his/her study.

## **Unit 5: Chapter Four**

This chapter is meant to present the results of the data collected by way of answering the research questions or the hypotheses formulated. The results could be presented in tabular form, after which the researcher is expected to draw inferences from the hypothesis and data collected.

## **Unit 6: Chapter Five**

This chapter consists of three main sub units

- 5.1 Discussion.
- 5.2 Conclusion.
- 5.3 Recommendation.

### **Discussion**

Here, the researcher would simply have some discussion based on the subject under study. It is here that the researcher would be expected to make justifications for all of his/her assertions.

### **Conclusion**

The conclusions drawn by the researcher must be based on the reported findings. It must be noted that conclusions are not the same thing as findings. They differ. Findings should be used to support conclusion.

### **Recommendation**

In this section the researcher, is expected to make recommendations based on the findings of the study. In most cases, recommendations serve as springboard for further researches.

### **Referencing**

After the research work has been completed, it is the responsibility of the researcher to duly acknowledge all authors whose materials have been used in the write up. It is an academic offence to make use of somebody's material, without adequate acknowledgement.

In the body of the text, where the researcher copies in verbatim from somebody's work, what he does is to cite the author's surname, year of publication and the page number; but in a situation where researcher does not copy in verbatim, he cites the author's surname and year of publication only.

At the end of the whole work, the researcher would have to compile a list of all the materials made use of and arrange them alphabetically using their surnames for the arrangement. It must be noted that the way textbooks are referenced is different from the way journal materials are referenced. Following the American Psychological Association (APA) format, there are four important features that must be shown. They are the author's surname, the date, title and publication information i.e. the city where the work was published and the name of the publisher.

Examples:

Textbook -

Oluwatobi, E.O. (1992). Hints on effective teaching and learning in primary schools. Ibadan : University Press.

Journal Article :

Olufemi, P.K. (1995). The use of instructional materials in schools. Ilorin Journal of Education. 6. (1), 21-23.

### Revision Questions

- 1) a) What is Educational Research?  
b) Define the following Terms
  - i. Data
  - ii. Population
  - iii. Sample
  - iv. Hypothesis
  - v. Variables
- 2) What are the factors to take into consideration while selecting a topic?
- 3) What are the factors that should guide the formulation of Hypothesis?
- 4) Phrase a researchable topic in your area of interest, indicating your population and sample. What are the research hypotheses or research questions? Cite References of three textbooks that you would use.

### Bibliography

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