NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF ARTS

COURSE CODE: ISL 302

COURSE TITLE: RESEARCH METHODS

COURSE GUIDE

ISL302
RESEARCH METHODS

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INTRODUCTION

ISL 302- Research Methods is a two- credit unit compulsory course for the third year degree students in Islamic Studies. This course gives a clear picture of modern methods of research required by students preparing for their final year research projects. The course is usually taught in the penultimate year that is at your 300 level of the B.A. Islamic Studies programme.

WHAT YOU WILL LEARN IN THIS COURSE

The overall aim of Research Methods is to relate you to the nature and functions of research approaches to research and criteria for selecting research topics. Students will also be introduced into writing research proposal, literature review, collection of written and oral data, use of the information technology and administration of questionnaire as research instrument etc.

COURSE AIMS

The main aim of this course is to facilitate knowledge of the basic principles and practice of academic research methods. To achieve this, you will be introduced to:

- the various concepts, processes and approaches to research
- how to make choice of topic, write research proposal and literature review
- different methods of data collection and data analysis and division into chapters and sections
- styles of referencing and presentation of other research information.

COURSE OBJECTIVES

The course has fourteen units each of which has its instructional objectives. You are expected to read the objectives of each unit and bear them in mind as you go through the unit. Nevertheless, the following are overall objectives of the course. After you have gone through the whole course, you should be able to:

- define research and identify various types of research
- apply basic components of research to Islamic Studies
- identify and state Islamic Studies research problem
- formulate research questions/hypotheses and develop research proposal

- differentiate between reference, bibliography, and citation
- explain different styles of referencing
- explain sampling method and list types of sampling
- demonstrate processes involve in oral and written data collection
- conduct credible research projects in Islamic studies.

WORKING THROUGH THIS COURSE

To complete this course you are required to read the study units, and other related materials. Each unit contains Self- Assessment Exercise and at point in the course you are required to submit assignments for assessment purposes. There are 12 units in the course which you are expected to work through.

COURSE MATERIALS

Major components of the course are:

1. Course Guide
2. Study Units
3. Textbooks
4. Assignments
5. Presentation Schedule

STUDY UNIT

There are twelve units (of three modules) in this course. These are listed thus:

Module 1 Basic Knowledge about Modern Methods of Research

Unit 1 Research Concept and Importance**,** Types of Researchers
Unit 2 Various Approaches to Research (Methodology)
Unit 3 Problem Identification
Unit 4 Choice of Topic and Problems of Research

Module 2 Hypotheses, Variables, Proposal and Literature Review

Unit 1 Formulation of Hypotheses
Unit 2 The Variable and Its Types
Unit 3 Research Proposal
Unit 4 Literature Review

Module 3 Data Collection and Analysis, Referencing

Unit 1 Research Instruments (Oral Tradition, Interview and Questionnaires)
Unit 2 Sampling Techniques
Unit 3 Use of Information Technology
Unit 4 Referencing

TEXTBOOKS AND REFERENCES

Every unit has a list of references and further reading designed to enhance and deepen learner's knowledge on the course. These are some of them, try as much as possible to lay your hands on the materials (some are in soft and hard copies).

Ahmad, S. (1982). *Kayfa taktubu bahthan aw risālah.* (15th ed.). Cairo: Maktabat a`n-Nahdah al- Mişriyyah.

Bidmus, M. A. (2013). *Islamic Education in Nigeria: its Philosophy and Research Methods*. Lagos: University of Lagos Press.

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Hussain, T. (1995). *Understanding Research in Education.* Lagos: Mayfield Publishing Company.

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Oladosu, A.G.A.S. (1998). "Research Methods in Arabic and Islamic Religious Education: Some Basic Guidelines." *www.unilorin.edu.ng* retrieved October 2013.

Olayinka, A. I. *et al.* (2006). *Methodology of Basic and Applied Research*. Ibadan: Dabfol Printers.

Peji, M. (1982). *Social Science Research Methods: An African Handbook*. London: Hodder and Hodder and Stoughton.

Web Sources

http://www.researchmethodsinislamicresearch

http://www.processofliteraturereview

http://www.typesofresearch

http://www.google.research-process-in-art

http://www.google.researchinstrument

http://www.google.written-data-pattern-in-research

ASSIGNMENT FILE

Here, there are details of work you must do and submit to your tutor for making. Your scores from these assignments shall be used as part of your final marks in the course. Detail of this shall be found in ASSIGNMENT FILE and in Course Guide in the assignment section. Note that ASSIGNMENT will be marked based on Tutor-Marked Assignment (TMAs) and a final written examination at the end of the course.

ASSESSMENT

Your assessment will be based on Tutor-Marked Assignment (TMAs) 30% and a final examination which you will write at end of the course 70%.

TUTOR-MARKED ASSIGNMENT

Each unit has at least three or four assignments. You are expected to work through all the assignments and submit them for assessment. Your tutor will assess the assignments and select four, which will constitute the 30% of your final grade. The tutor-marked assignments may be presented to you in a separate file. Note that there are Tutor-Marked Assignments for you. It important you do them and submit for assessment.

FINAL EXAMINATION AND GRADING

At the end of this course, you will write a final examination, which shall constitute 70% of your grade. In the examination, you will be required to answer three (3) questions out of at least five (5) questions.

COURSE MARKING SCHEME

This table shows the actual marks allocations

Assessment	**Marks**
Four Assignments	Best three marks of the four assignments count as 30%
Final Examination	70% of overall marks
Total	100% of course marks

PRESENTATION SCHEDULE

The Presentation Schedule included in your course materials gives you the important dates for the completion of Tutor-Marked Assignments and attending tutorials. Remember, you are required to submit all your assignments by the due dates. You should guard against falling behind in your work.

COURSE OVERVIEW

Unit	**Title of Work**	**Weeks**	**Assessment Activity**
Module 1 Basic Knowledge about Modern Methods of Research			
Unit 1	Research Concept and Importance**,** Types of Researchers	Week 1	
Unit 2	Various Approaches to Research (Methodology)	Week 2	Assignment 1
Unit 3	Problem Identification	Week 3	
Unit 4	Choice of Topic and Problems of Research	Week 4	Assignment 2
MODULE 2 Hypotheses, Variables, Proposal and Literature Review			
Unit 1	Formulation of Hypothesis	Week 5	
Unit 2	The Variable and Its Types	Week 6	Assignment 3
Unit 3	Research Proposal	Week 7	
Unit 4	Literature Review	Week 8	Assignment 4
Module 3: Data Collection and Analysis, Referencing			
Unit 1	Research Instruments	Week 9	
Unit 2	Sampling Techniques	Week 10	
Unit 3	Use of Information Technology	Week 11	
Unit 4	Referencing	Week 12	
Revision			
Examination			
Total			

HOW TO GET THE MOST FROM THIS COURSE

In distance learning, the study units replace the university lecturer. This is one of its great advantages. You can read and work through specially designed study materials at your own pace, and at a time and place that suits you best. Think of it as reading the lecture instead of listening to the lecturer. In the same way a lecturer might give you some reading to do, the study units tell you when to read, and which are your text materials or set books. You are provided exercises to do at appropriate points, just as a lecturer might give you an in-class exercise. Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit, and how a particular unit is integrated with the other units and the course as a whole. Next to this is a set of learning objectives. These objectives let you know what you should be able to do by the time you have completed the unit. These learning objectives are meant to guide your study. The moment a unit is finished, you must go back and check whether you have achieved the objectives. If this is made a habit, then you will significantly improve your chances of passing the course. The main body of the unit guides you through the required reading from other sources. This will usually be either from your set books or from a Reading section. The following is a practical strategy for working through the course. If you run into any trouble, telephone your tutor. Remember that your tutor's job is to help you. When you need assistance, do not hesitate to call and ask your tutor to provide it.

1. Read this Course Guide thoroughly, it is your first assignment.
2. Organise a Study Schedule. Design a 'Course Overview' to guide you through the Course. Note the time you are expected to spend on each unit and how the assignments relate to the units. Important information, e.g. details of your tutorials, and the date of the first day of the Semester is available from the study centre. You need to gather all the information into one place, such as your diary or a wall calendar. Whatever method you choose to use, you should decide on and write in your own dales and schedule of work for each unit.
3. Once you have created your own study schedule, do everything to stay to it. The major reason that students fail is that they get behind with their course work. If you get into difficulties with your schedule, please, let your tutor know before it is too late for help.
4. Turn to Unit one, and read the introduction and the objectives for the unit.
5. Assemble the study materials. You will need your set books and the unit you are studying at any point in time.

6. Work through the unit. As you work through the unit, you will know what sources to consult for further information.
7. Keep in touch with your Study Centre. Up-to-date course information will be continuously available there.
8. Well before the relevant due dates (about 4 weeks before the dates), keep in mind that you will learn a lot by doing the assignment carefully. They have been designed to help you meet the objectives of the course and, therefore, will help you pass the examination. Submit all assignments not later than the due date.
9. Review the objectives for each study unit to confirm that you have achieved them. If you feel unsure about any of the objectives, review the study materials or consult your tutor.
10. When you are confident that you have achieved a unit's objectives, you can start on the next unit. Proceed unit by unit through the course and try to pace your study so that you keep yourself on schedule.
11. When you have submitted an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule. When the Assignment is returned, pay particular attention to your tutor's comments, both on the Tutor-Marked Assignment form and also the written comments on the ordinary assignments.
12. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives (listed in the Course Guide).

FACILITATORS/TUTORS AND TUTORIALS

The dates, times and locations of these tutorials will be made available to you, together with the name, telephone number and address of your tutor. Your tutor will mark each assignment. Pay close attention to the comments your tutor might make on your assignments as these will help in your progress. Make sure that assignments reach your tutor on or before the due date. Your tutorials are important therefore, try not to skip any. It is an opportunity to meet your tutor and your fellow students. It is also an opportunity to get the help of your tutor and discuss any difficulties encountered on your reading.

CONCLUSION

Much as I cannot promise you a too-easy ride on this course, I equally do not envisage much difficulty as long as you play the roles assigned to you in the whole exercise.

SUMMARY

In this Course Guide, we have provided you a general overview of *ISL 302: Research Methods* in which students pursuing Degree in Arabic and Islamic Studies programme must earn four credit Units. The Course Aims and Objectives and what learners will gain working through the Course Material and its Study Units are stated clearly at the onset. We have also provided you a list of textbooks and references for your further reading. As an inference in the Guide, to develop an active interest in the Course is a prerequisite for its successful completion. Assess yourself through the Self-Assessment Exercises (SAEs). You will equally be assessed for grading purposes through the Tutor-Marked Assignments (TMAs). Thus to do well- in the course, you must get yourself organised and try to conform to the presentation schedule.

We wish you the best of luck and success in the course.

MAIN COURSE

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MODULE 1 BASIC KNOWLEDGE ABOUT MODERN METHODS OF RESEARCH

UNIT 1 RESEARCH CONCEPT AND IMPORTANCE, TYPES OF RESEARCHERS

CONTENTS

1.0 INTRODUCTION

In this course, ISL302 Research Methods, it is expected of us to be trained in the method of writing academic researches with particular reference to Islamic studies. Topics to be discussed shall include, among other things, definition and concept of research, importance and characteristics of research, choice of topic; literature review, data collection**,** analysis of data, the concluding parts, documentation and referencing. In this unit we shall begin with the definition, significance and kinds of researches in Islamic studies.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- present clear definition and concept of academic research
- relate significance of academic research with particular focusing on Islamic studies
- give account of various approaches to research and relate them to Islamic studies.

3.0 MAIN CONTENT

3.1 Some Definitions of Research

Research in an academic setting simply means choosing a problem, designing a methodology, collecting and analysing data to solve the problem, report the findings and make recommendations.

On the other hand, several definitions have been put in place for the word. This idea can be deduced from the definition given by Martin Shuttle-worth when he says:

In the broadest sense of the word, the definition of research includes any gathering of data, information and facts for the advancement of knowledge.

Another definition of research is given by Creswell who states –

"Research is a process of steps used to collect and analyse information to increase our understanding of a topic or issue". It consists of three steps: Pose a question, collect data to answer the question, and present an answer to the question.

The Merriam-Webster Online Dictionary defines research in more detail as *"a studious inquiry or examination; especially : investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws".*

Meanwhile, let us paraphrase some other definitions of research as follows:

Any form of research, Islamic studies inclusive, may be an endeavor or curiosity- driven activity that has the purpose of discovery of new things and advancement of knowledge.

Research may be said to be studies directed towards more complete knowledge or understanding of the subject studied or a form of inquiry that involves seeking of evidence to buttress opinion or increase knowledge.

Looking at research from another perspective, it may be seen as an intellectual activity involving a systematic process for recognising need for information, acquiring and validating that information; and deriving conclusion from it.

Finally research is supposed to be an intensive report of academic activity chosen and conducted by a researcher. The report should include all stages of the study from the time the idea is conceived, organised, written, supported with proofs and sources and becomes a reality.

The value of such report (Research) will depend on various factors the most important of which is that the aim of the Researcher during the exercise should be purely an objective search for facts and reality of the particular matter the conclusion of which should not be subjective.

SELF-ASSESSMENT EXERCISE 1

Define research and give some of its noticeable characteristics.

3.2 Importance of Research

Research is very vital to our day to day activities as well as to our everyday decision making. Research therefore enables us:

- determine the accuracy or otherwise and validity of popular beliefs, and religious practices by submitting them to systematic scrutiny
- to enhance, modify or refine our knowledge of phenomenon or various Islamic theories surrounding our environment and society
- to generate new concepts and explanations of existing Islamic doctrines, beliefs and practices, economics, political or social system
- to find answers to particular existing questions through investigation
- evaluate the findings of other researches/studies or build on where they stopped. For instance while the history of early days of Islam and pre-colonial era in Nigeria seems to be over flogged, the post independent history of the religion seems not to have received adequate attention of researchers
- to bring the legacy left behind by early Muslim Scholars as well as the contributions of modern scholars to the limelight
- seek validation or improvement for religious doctrines and practices, social interactions, economic improvement, politics, ideology etc., to enhance quality of mundane and spiritual life of man
- collect and analyse data which will enable us provide information and advice to policy (or decision) makers.

SELF-ASSESSMENT EXERCISE 2

Of what relevance is research in Islamic Studies to humanity?

3.3 Characteristics of Successful Research

For us to conduct a successful research there is need for a better understanding of the term through an examination of the various characteristics and factors to be used as yard-sticks.

Running through the above – listed variety of definitions collected for research, we note the following characteristics.

Research is systematic efforts designed to obtain verifiable knowledge, and accessible to public and scrutiny by peers, transparent – in structure, process and outcomes, applicable in principles (if not specifics) to other researchers and research contexts.

Ahmad, S. (1952) identifies five essential requirements for a research to be considered successful. These are:

1. Wide Reading/Literature review
2. Thoroughness
3. Independent of Opinion/Critical
4. Creativity/Novelty and
5. Effectiveness

The above enumerated requisites of successful research can be translated into activities as follows:

Wide – Reading is the first requirement when researching for academic projects, Dissertation for Master of Philosophy and Thesis for the Doctoral Degrees. These categories of research require from researcher in-depth reading of existing literature in the studies being conducted and familiarity with important researches and existing literature in his area of study. This goes a long way in forming the basis of his conclusions. He would be saved from becoming embarrassed if confronted by an examiner with data that can change his conclusions but not available to him or better conclusions of his peers.

Thorough Understanding: Thorough understanding of the subject and peers opinions and accuracy in quoting their statements and expressions are a second essential requirement of a successful research. A lot of researchers have fallen into grievous mistakes as a result of misunderstanding of sources or error of quoting.

Thirdly, a researcher should reflect independent opinion in his findings, and critical of the views expressed in his sources. This is because the basis of many views expressed is faulty. They should then be critically analysed before accepting the valid ones or rejecting those on faulty basis.

Originality is the fourth essential requirement of a successful research. It must break a new ground or make contribution to existing knowledge. The researcher starts where others stopped and moves knowledge a step forward thus, contributing his quota to the scientific or literary renaissance.

Novelty in this regard is not only by discovering new things. The word also implies rearrangement of existing subject in a new useful form or finding new reasons for earlier accepted facts. It also implies bringing together scattered ideas in a well-organised format, etc.

Research should be such that will make impact on readers through substantiating submissions with proofs to carry reader along. Readers should be attracted when reading through the research by presentation of activities and findings in clear, lucid and impressive style devoid of digression and ambiguities.

In other words, successful research requires that the problem must be clearly stated; it must involve a careful collection, organisation and articulation of what is already known about the problems and what is yet to be known. High degree of originality must be apparent. Logical presentation and plausible explanation of the finding of the study or investigation.

Structured process which follows a systematic order or rule of execution. Observable experience or empirical evidence; Reliance on revelation and rejection of dogma as method of establishing religious knowledge. Successful research is a painstaking activity that demands a lot of courage and perseverance from the researcher. It is an expensive endeavour in terms of time, money, resources and energy.

Successful research demands accurate observation and description; careful and concisely recorded and reported procedure. It is characterised by carefully designed procedures that apply rigorous analysis. It entails a careful statement of how the steps for data collection are followed; the subjects or objects studied; how the instruments were administered or the observations made and recorded, how the data were analysed. It involves gathering new data from primary or firsthand sources or using existing data for new purpose.

Research requires the operational definition of terms; objectivity and not basing opinions on pre-conceived ideas and beliefs. It must be factual and not impressionistic, taking stand according to evidence.

Research involves tests of hypotheses or answering of questions. It requires delineation, sample, variables, questions or hypotheses and tests of data collection.

SELF-ASSESSMENT EXERCISE 3

Elaborate on the five essential requirements of a successful research from the point of view of Ahmad Shalabi.

3.4 Research Talent and Researchers Personality

The opinion of Ahmad Shalabi, author of the celebrated research manual (*kayfa taktubu bahthan*) on Islamic studies and other related matters, can be rendered as follows:

"It must be pointed out that some are gifted in the art of researching while others are not. When existing, research talent can be developed with knowledge acquisition and perseverance. Reading brilliant works and deep reflection over its step by step thinking followed by continuity in research activities can also develop art of researching in an individual. Identification of errors in the attempts as being pointed out by experts, supervisors and critics and avoidance of such mistake in future exercises, all these can improve the talents and personality of a researcher.

Research talent is clear and unambiguous. Rather it has signs and symptoms by which it can be known or identified. Some signs by which research talents can be identified include:

Ability to choose a problem that has never been studied before. A student who presents a fascinating topic already studied for research should be sympathised. He is a copycat lacking creativity. A talented student is he who suggests ambiguous topic for research and make attempts to remove its ambiguity.

Novelty in formulating appropriate plan for the study. This shows evidence of having full control of the problem and opinions been expressed about it. Independence of opinion and avoidance of being easily dragged by the wind and the opinions around. For, despite the fact that their sources of Islamic principles and laws are the same, the personalities of the Muslim Jurists made them understand the texts of

the *Qur'ān* and *Hadīth* differently. Different Schools of thought thus emerged as a result of Independent opinions of the Researchers.

Ability to compare, contrast and come up with new ideas. Never to concede to existing opinions by analysis of the premises on which such opinions are based, he may come out with different conclusion. Imbibing the feeling that he is the master and author of his research and keeping improving upon it. A talented researcher derives joy in the work, shows continuous interest and gives preference to it over other things. Research then becomes the life of the researcher, hope and love."

SELF-ASSESSMENT EXERCISE 4

Discuss the talents required of a researcher.

4.0 CONCLUSION

From the foregoing we may conclude that any form of research, Islamic studies inclusive, may be an endeavor or curiosity- driven activity that has the purpose of discovery of new things and advancement of knowledge. Research is very vital to our day to day activities as well as to our everyday decision making.

In-depth reading, thoroughness, creativity, originality and effectiveness are five characteristics of a successful research. The art of researching is all about novelty or creativity which is a bright quality in some people but dim, not shining or even lacking in some.

5.0 SUMMARY

This first unit opens with an introductory section which presents to you a bird's eye view of the topics to be studied in this Course while the second section highlights the objectives. The five main contents of the unit were discussed in section three. These are Definitions of Research, Importance of Research, Characteristics of Successful Research, and Research Talent and Researchers Personality respectively. Each section is followed by a Self-Assessment Exercise to test the extent of your assimilation of the topics discussed. The conclusion highlights the focus points in the unit which is being rounded off with this summary.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the concept of Research.
2. How would you account for the significance of research in Islamic studies?

3. Enumerate the five essential requirements identified by Ahmad Shalabi for a successful research.
4. Highlight the indicators of research talents and researchers personality.

7.0 REFERENCES AND FURTHER READING

(Unattributed. ""Research" in 'Dictionary' tab". *Merriam Webster (m-w.com)*. Encyclopedia Britannica. Retrieved 13 August 2011)

Ahmad, S. (1952). *Kayfa taktubu bahthan aw risālah.* (15th ed.). Cairo**:** Maktabat a`n-Nahdah al-Misriyyah.

Bidmus, M. A. (2013). *Islamic Education in Nigeria: its Philosophy and Research Methods*. Lagos: University of Lagos Press.

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Oladosu, A.G.A.S. (1998). Research Methods in Arabic and Islamic Religious Education: Some Basic Guidelines: *www.unilorin.edu.ng* retrieved October 2013.

Olayinka, A. I. *et al* (2006). *Methodology of Basic and Applied Research*. Ibadan: Dabfol Printers.

Shuttle worth, M. (2008). "Definition of Research". *Experiment Resources*. *Experiment-Research.com.* Retrieved 14th August 2011.

UNIT 2 VARIOUS APPROACHES TO RESEARCH (METHODOLOGY)

CONTENTS

1.0 INTRODUCTION

This is the second unit in the first module of this Course. The concentration in the first unit was elucidation of concept, importance and different kinds of researchers. In this unit we are going to focus on different kinds of approaches to research. Topics to expound include researches at various levels the higher institutions, overview of qualitative and quantitative research approaches highlighting approaches relevant to Islamic sciences at appropriate points.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- relate various researches conducted for academic degrees in higher Institutions
- analyse some approaches to research relevant to Islamic studies
- differentiate between qualitative and quantitative approaches to research.

3.0 MAIN CONTENT

3.1 Academic Research in Higher Institutions

An undergraduate research is often called ‘term paper’ or ‘project’ during the University education sessions in science, educational or humanity faculties. The undergraduate project aims at training students

on conduct of researches in preparation for Masters and PhD degree researches hence, making teaching Research methodology a Course.
Research work at this level is a work aiming at developing student's talent and expanding the horizon of his knowledge. It also aims at training him on how to express and organise his ideas in appropriate styles.

At this level the research gives the results of the student's investigation of a particular topic. The great majority of these investigations are carried out in science laboratories or libraries, where the student gathers facts and experts opinions from books, periodicals and other sources. An occasional research paper may be based wholly or partially on interviews and personal observation.

Although the research paper is based on the ideas and work of others, you should not think of it as a mechanical process. In summarising and citation of facts and ideas from several sources you will have plenty of opportunities to use your creativity and to show the kind of thinking you are capable of. You will also of course be demonstrating your ability to express your ideas effectively.

This kind of undergraduate research in the arts and humanities ranges between sixty and one hundred pages. It should neither be too lengthy nor too scanty. The academic value of this exercise lies in the fact that the student complies by the rules, the procedure and steps of research preparation and by instructions, guidelines and advices offered by the Supervisor.

M.A./M.Phil Dissertation Research

M.A. Dissertation is a post-graduate specialised research aiming at making contribution to knowledge, science and culture in general. It exposes searcher to gain wider experience in a wider experiment; and to be more precise in preparation and verification of facts. It is a test of Students talent, intelligence and ability to progress in the field of academic research, book authorship, review and editing thus making contribution to knowledge and preparing for research to obtain doctorate degree.

Thus, most universities make it conditional that a high grade not less than Second Class Upper must be obtained by applicants seeking registration for this programme. Research for M.A./M.Phil degree may be based on a completely new topic or on editing of a manuscript.
Most Universities in Nigeria admit Candidates with B.A. Degree, Second Class Lower Division into the M.A. Programme which invariably runs for two-calendar year.

PhD Thesis Research

This is the highest specialisation in a subject; the peak of academic research. It aims at making more intensive studies in a specialised area which will lead to introducing new ideas and propounding new theories thus breaking new grounds and moving knowledge forward. Ultimately, PhD research produces a distinguished academic personality and point of reference in his area of specialisation.

Research may be conducted for Ph.D thesis on a completely new topic or editing and studying a manuscript. The length expected is from about 350 pages and above.

A class of Degree such as First Class, Second Class, Third Class or Pass may be awarded for PhD Research as in the case with Master of Arts and Bachelor of Arts degrees in some Universities. First Class or Second class Upper Grade may be made with Honours.

For the realisation of the desired benefit, the University systems stipulate appointment of Supervisors for academic Researches and puts limits to their carrying capacity. These are usually eminent scholars with good records and reputation in research, publications and academic activities.

The word Doctorate is of Latin Origin; designated by Jews for EXPERTS in Jewish Law. The Christians then adopted it from the Jews and applied it to their Law luminaries. The Doctorate degrees symbols are Robe, Ring, and Four Square Beret which is warn in some traditions by Researcher during oral defense of thesis in front of the panel of examiners and on special occasions. The Universities in the Muslim Countries also have special academic gowns quite different from those in the Christendom.

It must be mentioned at this point that the title Doctor is only given to one who is successful in conducting a research on a topic and defending it before a panel constituted by the Higher Institution where it is registered in one of its faculties. All members of the panel must be PhD holders highly experienced in teaching and research. In some Institutions the minimum rank of members of the panel is Associate Professorship.

On the other hand the Doctor of Philosophy is the highest academic qualification a University gives worldwide. The professorship title is thus given in recognition of an academic's wide services in the field of teaching and research. These are called Ustadh or Ustadh Kursy in Arabia Universities.

We must also distinguish between a non-Specialist physician and a Specialist one who has Ph.D degree. In some traditions it is only the latter that can be addressed as Doctor. Calling the former a doctor is figurative.

It must also be pointed out that the doctorate title awarded to some distinguished persons like heads of state, Institution or professions who did not conduct and defend researches are just ceremonial and not academic even though they are conferred by academic institutions.

SELF-ASSESSMENT EXERCISE 1

Differentiate between the various researches to be conducted in partial fulfillment of degree programmes in Universities.

3.2 Various Approaches to Research Relevant to Islamic Studies

i. Reports

Reports writing usually aims at collection of specific information or recommendations to be disseminated or put across to people, or proceedings of a Conference or academic seminars.

ii. Journal Articles

This aims at presenting existing facts for publication in a Journal. An academic Journal article may be peer reviewed and published in recognised Journals, local or international. This kind of research should also be innovative and make contribution to knowledge. The rules and procedure to be followed will however differ from those of Research work for academic degrees.

iii. Survey Research

This is the process of conducting a study of specific issues, groups or populations. There is a variety of styles such as close –ended questionnaire, structured interviews and observation and use of data recording sheets.

A researcher could use surveys to find out his/ her own set of data on manuscripts of the contributions of Nigerian Ulema to Arabic Language and Literature or Islamic Studies. In conducting such survey, the instrument to administer may be inform of multiple choice questions, Likert scale questions and open –ended questionnaires. The survey

should provide necessary information relating to authors, location of manuscripts, year of authors scholarly activities, subject area etc.

Sample range and size are critical factors. This method will give a rapid picture of overall trends. Survey research is used for many other different applied purposes, e.g.:

- to help select the behavior to be changed in individuals or group
- to choose the target population best suited for an invention or intervention
- to profile a population
- to determine the best channel to reach a population.

Mail surveys may be appropriate if the subject matter is more personal in nature or requires lengthy descriptions. Newer methodologies such as on-line and e-mail surveys may be appropriate for hard – to reach audience with the appropriate technologies.

iv. Case study

This could be either quantitative or qualitative depending on whether you use numbers or not. It usually involves collecting data or observations of a person or small group through observation, interview and documentary evidence. A quantitative case study could be a study of the Muslims in Nigeria when you use actual statistics and it could be qualitative if you explore the role of Muslims in a given community by doing a series of in-depth interviews with a limited number of people.

v. Pilot Study: This is largely a preliminary study to a major study.

vi. Content analysis

This involves analysing written materials or appraisal of literary outputs. It can be used for evaluating and interpreting the writings of the *Ulama* of a particular time or location and editing of their manuscripts. It is often qualitative but it can be quantitative, for example, when analysing the amount of time devoted in TV programming or newspapers to certain issues social educational or religious.

vii. Personal reflection

In this type of research, we reflect upon, explore and evaluate our own experiences. This can be an important qualitative method that asks the researcher to evaluate his own memories, values, experiences, understandings and opinion on an issue. It involves a fair degree of personal involvement e.g. a researcher‘s experiences as an exchange

student in Muslim or Arab countries. It is more of a factor in analysing research data.

viii. Structured observation

This could also be participant or non –participant. It is used when we observe recurring events or behaviors and make a note of what we see for later analysis. The researcher is not part of the action being observed. It is often used when councils want to see how frequently and for what purpose their facilities are used. It is quantitative e.g. How many people use mosque and for what purpose is it being used?

ix. Action research

This is a method that involves the researcher in joining in the activities of the group being studied. Usually, it is informal, qualitative, interpretive and experimental. It is often used when people see a problem in a situation and, by becoming involved in the activities of the group, they are able to experience the problem and work out solutions. It involves (i) Identifying the problem (ii) observing how people cope with it (iii) trialing, and then (iv) evaluating solutions. It can involve high level of participation and experimentation. It is the natural way of acting and researching at the same time. Participation in the observance of *Ṣalāt*, *Ṣiyām, Ħajj*, interaction with *ṣūfī* brotherhoods in their mawlid celebration, dhikr and bandiri sessions and other devotional exercises exemplify good grounds for action research.

SELF-ASSESSMENT EXERCISE 2

Enumerate and analyse five different approaches to research relevant to Islamic studies.

3.3 Qualitative and Quantitative Approaches to Research

On the basis of the methodology used to carry out a study, approaches to researches can be qualitative or quantitative.

(i) Qualitative Research

Qualitative research involves collection of narrative data in a natural setting in order to gain insights into phenomena of interest. This type of research studies many variables over an extensive period of time in order to find out the way things are, how and why they came to be what it all means.

Qualitative researchers do not want to intervene or control anything. The most common methods of data collection are observations, interviews and focus group discussions, in order to guide and support the construction of hypotheses. The results of qualitative research are descriptive rather than predictive.

Merits of Qualitative Research

Qualitative research contributes to rich, insightful results due to:

- synergy among respondents, as they build on each other's comments and ideas
- the dynamic nature of the interview or group discussion process, which engages respondents more actively than is possible in more structured survey
- the opportunity to probe enables the researcher to reach beyond initial responses and rationales
- the opportunity to observe, record and interpret non- verbal communication (i.e. body language, voice intonation) as part of a respondent's feedback, which is valuable during interviews or discussions, and during analysis.

What are the "difficult questions" that qualitative researchers need to ask themselves and to resolve in the process of doing their research?
Through qualitative research, we can explore a wide array of dimensions of the Muslim world, including the texture of its doctrines and daily practices and activities.

Furthermore, qualitative research can help you to:

- develop hypotheses
- understand the feelings, values, and perceptions that underlie and influence behaviour
- explore specific information obtained in a quantitative study to better understand the context and/or subtext of the data
- come to an understanding of the nature, function or/and aesthetics of a cultural phenomenon, human condition, social philosophy or literary theory.

It is useful to integrate qualitative and qualitative research methods.

(ii) Quantitative Research

Quantitative research involves gathering information in numeric form. It differs from qualitative research in the following ways:

- the data is usually gathered using more structured research instruments
- the results provide less details on behavior, attitudes and motivation
- the results are based on larger sample sizes that are representative of the population
- the research can usually be replicated or repeated, given it high reliability and
- the analysis of the results is more objective.

Qualitative and quantitative research is often complementary and in a research design both may feature. The qualitative element frequently takes place at the front end of the study exploring values that need measuring in the subsequent quantitative phase.

SELF-ASSESSMENT EXERCISE 3

Discuss the concept of qualitative and quantitative approaches to research. Highlight their merits.

4.0 CONCLUSION

Projects, Dissertations and Thesis are usually the researchers conducted in partial fulfillment of B.A., M.A, and Ph.D programmes to be submitted in academic institutions.

Researches in academic programmes, Islamic studies inclusive, may be in form of Reports, Journal Articles, Conference papers and surveys. Researchers in the Islamic studies disciplines may also adopt case studies, content analysis, personal reflection and action methods in their researches like their counterparts in other disciplines. Research may also be qualitative and quantitative in approach; these have their merits and demerits.

5.0 SUMMARY

The interaction in this Unit opens with an introduction followed by a highlight of what a learner will be able to do after digestion of the Unit. The focus of the main contents in the Unit includes:

- clarification of the differences between academic research for B. A. Degree Project, M.A. Degree and M. Phil. Dissertation and PhD Thesis as obtained in some higher institutions
- enumeration and explanation of research approaches with particular reference to Islamic studies
- an analysis of qualitative and quantitative research.

The conclusion summarises the principles and generalisations that can be inferred from the discourses which the unit rounds off with this summary.

6.0 TUTOR-MARKED ASSIGNMENT

1. Highlight various research methodologies that can be adopted for Islamic Studies.
2. Describe how to conduct a case study research in an Islamic studies topic.
3. Relate qualitative design to an Islamic studies topic.

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UNIT 3 PROBLEM IDENTIFICATION

CONTENTS

1.0 INTRODUCTION

Problem is one of the most important issues in research. The difficulty of stating a research problem satisfactorily at a given time should not cause one to lose sight of the ultimate desirability and necessity of doing so. A fundamental principle can be stated: if one wants to solve a problem, one must generally know what the problem is. It can be said that a large part of the solution lies in knowing what one is trying to do.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify researchable problems in specific terms
- state different sources of research problem.

3.0 MAIN CONTENT

3.1 P**roblem Identification**

A problem is an interrogative sentence or statement that asks: what relationship exists between two or more variables? The answer is what is being sought for in research. A problem in most cases will have two or more variables. For example a problem associated with Sharī‘ah could be, of what relevance is it to the development of Islamic societies in modern times?

Note that the problem is stated in question form. Also note that the problem states a relation between variables. In this case for now,

variable is used as the name of a phenomenon, or a construct, that takes a set of different numerical values.

The statement of the problem serves to elaborate upon the information implied in the title of the study. It should be set forth in brief but quite specific terms so that even an uninformed reader may secure an idea of the nature of the problem which underlies the national for the study.

Criteria of a good problem

First, when citing problems and hypotheses from the literature, we do not always have to use the authors' words verbatim. In fact, the statements of many of the problems are ours and not those of the cited authors. Some authors use only problem statements; some use only hypotheses; others use both problem and hypotheses to express a relation between two or more variables.

Second, the problem should be stated clearly and unambiguously in question form.

Third, criterion is "often difficult to satisfy, it demands that the problem and the problem statement must imply possibilities of empirical testing. A problem that does not contain implications for testing its stated relation(s) is not a logical problem. This means not only that an actual relations is stated, but also that the variables of the relation can somehow be measured. Many interesting and important questions are not logical questions simply because they are not amenable to testing. These questions can be labeled metaphysical in the sense that; they are at least as stated, beyond empirical testing possibilities.

SELF-ASSESSMENT EXERCISE 1

What is a good problem statement***?*** Highlight the criteria of a good statement of research problem.

3.2 Sources of Research Problem

Ability to identify problem is necessary for both beginning researchers (students both undergraduate and postgraduate) and young researchers who have become independent of the suggestion of their advisers or supervisors. Research problem may be instigated by:

i. Personal Experience as a Source of Research Problem

Drawn on the fact that most people who engage in Islamic research or other areas of humanities are those who have some experience in social

process or Islamic system, your role within the social system, you will experience dissatisfaction with some conditions, wonder how or why they develop; and will notice things or relationship for which you know of no satisfactory explanation. Seize upon these felt difficulties and explore them thoroughly, discover whether they have been or can be solved. An alert mind, sensitively studying management situations, religious crisis, setting and social interaction will see all these serving as an excellent source of research problems.

ii. Literature as Source of Research Problems

Problem ideas do not germinate in barren brains but rather in minds enriched by varied experience and knowledge. The well read investigator has an advantage when it comes to finding an interesting problem. Experience and knowledge that lead to identification of problems are acquired through an extensive search of literature; promising problems lie in abundance in professional periodicals and journals for investigators to discover.

Publications such as Index Islamicus, Journals of Islamic Issues, contemporary issue and social sciences directly or indirectly point to unsolved problems in:

- reports of current researches
- articles that discuss or question assumptions, procedures, techniques and generalisations commonly accepted in the field and
- surveys and review that summarise the frequency of investigation in various areas, thereby indicating where gaps exist and further research is needed. Contradictory findings that are reported in the literature may alert an investigator to the existence of a problem.

iii. Consultation with Subject Experts and Professors

Another good source of research problem is consultation with subject experts and professors. Spirited intellectual intercourse with experts at formal and informal forms, presents opportunity to receive awareness of problem areas. Graduate courses, seminars, and professional meetings – particularly those in which papers are read and criticised, conferences with stimulating professors, lecturers by eminent men in art and social sciences often provide clues needed to the solution of problems.

Though supervisors- or advisers are not expected to assign research problems to students, consultation with the more experienced faculty members is a desirable practice. Best (1981) described the expected

relationship between beginning researchers and the more experienced professors in the choice of research problem in the following words: "Most students feel insecure as they approach the choice of a research problem. They wonder if the problem they may have in mind is significant enough, feasible and reasonable free from unknown hazards. To expect the beginner to arrive at the supervisor's office with a completely acceptable problem is quite unrealistic. One of the most important functions of the research supervisors is to help student clarify their thinking, achieve a sense of focus, and develop a manageable problem from one that may be vague and too complex."

iv. Theoretical Sources

Theories are ideas formulated as a result of observed phenomena. These ideas are subjected to rigorous scientific investigation after which a general principle is made. For example, while reading through some theories in Islamic studies development, one may discover a gap in knowledge. Such theory is passed on for further investigation and filling the gap.

3.3 Process of Problem Identification

Now that we have examined some of the possible sources of research problem, let us consider some of the practical steps to be taken that can lead us to the identification of research problem. Selection of an acceptable research problem comes as a result of deliberate and painstaking effort on the part of an investigator. Often, students (both at undergraduate and postgraduate levels) get frustrated at this stage because they cannot easily identify an acceptable problem. However, much of the difficulties encountered by beginning researchers can be reduced if the following suggested steps in problem identification are followed:

i. identify a general problem area
ii. preliminary review of literature
iii. narrowing down of general area.

SELF-ASSESSMENT EXERCISE 2

Enumerate the steps that can reduce difficulties in problem identification.

3.4 Problems that may be confronted by Researcher in Nigeria

1. Inadequate research environment
2. Lack of data of previous researches
3. Prevalence of the use of unacceptable research instruments
4. Non-availability of adequate funding
5. Inadequate exposure to modern research trends
6. Inadequate funding of few existing research institutes
7. Existence of bottle necked administrative procedures of result authentication.

SELF-ASSESSMENT EXERCISE 3

What are the problems of research in Islamic studies in Nigeria?

4.0 CONCLUSION

We can hereby conclude by identifying major characteristics of a research problem as follows:

1. It should describe the relationship between two or more variables
2. It could take the form of a question for which answer is to be provided.
3. It must be capable of being tested empirically (i.e., with data derived from direct observation and experimentation)
4. It must be specific enough to avoid confusion and to indicate clearly what is being studied.
5. Through the use of operational definitions, researchers can specifically and clearly identify what (or who) is being studied.
6. The research problem should be composed of a precisely stated research question that clearly identifies the variables being studied.

5.0 SUMMARY

In this unit, you have learnt the following:

- the nature of research problems
- how we arrive at a research problem
- the characteristics of a research problem
- the problems of research in Nigeria.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is research problem?
2. State and explain six sources of research problems.
3. State five characteristics of a research problem.
4. Explain the steps that can reduce difficulties in identification of research problem.

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WEB SOURCES

www.google/whatareresearchproblems?

www.google/criteriaofagoodproblem

www.mama/whatisproblemidentificationinresearch?

www.bubblefish/nteexamplesofproblemishistoricalresearch

www.google/examplesofproblemidentificationincontemporaryreligionsociety

UNIT 4 CHOICE OF TOPIC AND PROBLEMS OF RESEARCH

CONTENTS

1.0 INTRODUCTION

At first, students think researchable topics in their area of interest have been exhausted. This idea is contrary to the reality of things. Most Scholars in the Higher Institutions still keep substantial number of researchable topics and are eagerly looking forward for students to whom they will give to work on them. While most Institutions allow free hands for students to choose topics for their projects others usually release list of topics for students to choose one for their projects. On the other hands, many a times, students come up with beautiful research ideas but they have challenges with how to streamline them into something researchable.

Furthermore, students most times receive topics from their supervisors or other senior faculty members. This more often than not put them in a fix; they make slow progress or are unable to go further in the research work. In this unit, we shall examine the various sources through which good Islamic research topics can be generated and their characteristics identified to enable the student arm himself when he goes out into the field. The unit is therefore arranged as follows.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- state the sources of project topics
- discuss why the topic must be narrowed down to specified area
- state the characteristics of a good research topic.

3.0 MAIN CONTENT

3.1 Sources of Projects Topics

(a) The Libraries and Research Centers

The major source of information for research is the library. This is where information is indexed. In the library, the researcher is exposed to various information concerning his/her research through careful and concerted searches of journals, abstracts and research indexes.

(b) Library Collection of Muslim Scholars

Most of the Muslim scholars acquired a lot of Islamic and Arabic works in their private libraries in form of books and manuscripts. Such private library collections enjoy patronage of scholars; and they remain versatile centres for research and scholarship.

(c) Research Centres

Research centers are operated by either individuals or corporate organisations. These research centres have different areas of focus and each area of focus has many research conducted under it. What the researcher does is simply to gather information pertaining to his particular area and use the information to move forward in his/her research. In addition, most of these research centers have an index or catalogue of researches they have done in a particular area and these are kept for researcher to know what has been done.

(d) Personal Experiences, Ideas and Interests

The researcher's personal experiences, personal ideas and interest can be a rich source of information and point of departure in Islamic and Arabic language research. Here, the researcher does an introspective evaluation of what he/she has seen or studies, and how he/she thinks it could be done and devices means to go into the field to study these. Most people find this rational experimental aspect to be a very good point of departure in research. It is important to note that almost all researches stem from this perspective because for one to engage in any form of study one must have rationally thought about it first. A researcher may have observed the persistent error in the use of the tension. These errors will trigger some interest to conduct research.

(e) Pressing Demands in an Area

The pressing demand in an area is another rich source of acquiring information for a research topic and subsequent project writing. A cursory look at the demands in Islamic and Arabic studies in Nigeria will bring to the fore a plethora of demands that needs to be supplied in terms of literature, practical work and so forth. For instance, one can look at the demand for an appropriate teaching method of Arabic sounds like the pronunciation of guttural letters and then decide to make his/her research efforts to focus on that area to supply the information needed.

(f) Need to Fill Up Gap

There is always a need to fill a gap in the contribution of Nigerian, West African and other *Ulamā* to various branches of Islamic studies, Arabic language and literature. An Islamist researcher might also want to engage in a research just to fill a gap in the area of doctrines and practices of Islam among the various Muslim communities in West African cities and settlements.

(g) Previous Researches

The examination of previous researches is also a very rich source of information for project topics. Many of such researches are preserved in the libraries of Higher Institutions. Every research project has two major areas that are important with regards to pointing towards an area of research. The first is the finding. An examination of the findings of a research work may inevitably point to the things that a researcher did not find. It may be as a result of not adding a particular variable or as a result of not manipulating one.

An observation of this will enable a researcher to know what to add in order to make the study better and sort of start off from where the previous researcher stopped. The second aspect is the suggestion for further studies. This is the most important source among the two. This is where a researcher makes candid suggestions for further studies and this enables the person reading to know which areas are open for studies from the previous researchers point of view.

(h) Prevailing Problems

Every area has a prevailing problem as much as every` country has its own. Hence, the need to look at the prevailing problem in the society as an area of departure for further studies. For instance, in Spoken English, the major problem in Nigeria is the interference of the native languages on English and as a result, no matter how the average Nigerian

tries, their accent will reflect where they are coming from. The questions along this line are: Why is this so? What can we do to reduce this? Are there better teaching methods to be adopted? In an attempt to answer any of the following questions, the research student will come up with a viable research topic.

(i) Expert Opinions (Professors/Lecturers and Expert Practitioners)

Expert opinion is another viable source of research topic. The question of who an expert is comes to bear in consulting experts or in choosing whom to consult. For the purpose of this discourse, an expert can be seen as someone with ample experience in a particular area of vocation, who has spent an appreciable number of years in that area and who has made visible impact in the area. More often than not, they are our lecturers or practitioners in a particular area we want to research in.

(j) Religious Organisations and Societies

There are many Islamic groups and modern Islamic societies whose *dawah* activities and contribution to the propagation and consolidation of Islam in Nigeria and the West African sub-region may be chosen as topic for research project.

SELF-ASSESSMENT EXERCISE 1

Mention five sources of project research topics and write notes on them.

3.2 Characteristics of a Good Project [Research] Topic

1. It must be viable

The first characteristic of a good project or research topic is that it must be viable. Viability of a topic is the assurance that there would be enough materials to complete the research. It must be noted that some topics may look attractive initially but may lack enough data for a meaningful research.

2. It must be interesting

Most students go into research with the intention of just getting the project over with. This is a very wrong attitude to enter into a painstaking endeavour like research. A wrong attitude will inevitably lead to abandoning the research work half way. Hence, it is advisable that the student must be interested in his chosen research topic and be able to present it in an interesting to other people that will read it.

Interest will enable the student hold on even when the odds seem against him/her.

3. It must contribute or add to knowledge

Apart from the interest of the researcher, the topic must be able to add to knowledge. If a research is interesting but does not have substance, it can as well not be undertaken. Most students tend to regurgitate the information that has already been researched on and worse still most enter into an area that has been over flogged and hence, there is this inability for the research to contribute anything to existing knowledge.

4. It must be time-bound (i.e. ability to complete it within specified time)

One interesting observation is that students tend to engage in projects that they cannot carry out and as a result, abandon them most times half way. These projects commonly referred to as 'elephant projects' have contributed immensely to students spending extra years in school. It is advisable that a researcher in choosing a topic must be able to show competence to carry out the research in the allotted time.

5. It must be intensive and not extensive

Peil (1982) noted among other things that "the issue, therefore, is that once an individual has chosen a general area where a topic is not given, for example Human Immune Deficiency/ Acquire Immune Deficiency Syndrome (HIV/AIDS), the researcher must narrow down the topic to a set of specific questions which can be answered in a single study. For instance, ''Poverty and HIV/AIDS Patient Management in Swaziland: A Case study of Known HIV/AIDS Patients¨ (Owumi and Ezeogu 2003). From the general focus, the authors have gone to narrow the subject to ''Poverty'' and ''Known Patient Management''. This ''Zeroing down'' came from a perusal of the literature."

6. Objectivity

Being objective suggests that researcher is concerned about facts and not influenced by personal feelings or biases. It makes work more academic and acceptable. Part of being objective is being fair by trying to show both sides of an argument and avoiding making value judgements through use of words such as "wonderful" or "sarcastically". Other techniques of making writing objective include being specific in expressing ideas. For example, say "twenty" instead of "several"; "80%" instead of "most of the population"; "three years ago" or "in

2010" instead of "some time ago" and avoidance of exaggeration such as 'whole world' really, very.

SELF-ASSESSMENT EXERCISE 2

Describe the characteristics of a good research.

4.0 CONCLUSION

In this unit, we have explained the various sources of research topics with various examples and have stated the characteristics of a good research topic. These sources reduce the challenges students face in searching for research topics and provide an avenue for them to own the topic they are able to develop.

5.0 SUMMARY

In this unit, you have learnt the following:

- the sources of research topics
- the characteristics of a good research topic.

6.0 TUTOR-MARKED ASSIGNMENT

1. Distinguish between primary and secondary sources of research.
2. Mention and describe three types of the primary sources in relation to research.
3. Explain the characteristics of a good research topic.

7.0 REFERENCES/FURTHER READING

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MODULE 2 HYPOTHESIS, VARIABLES, PROPOSAL AND LITERATURE REVIEW

UNIT 1 FORMULATION OF HYPOTHESIS

CONTENTS

1.0 INTRODUCTION

Hypothesis logically follows problem specification because it is the vehicle through which the problem is translated into real research activities; through which solution is obtained for the problem. A hypothesis is an intellectual guess that offers possible solutions to the problem. The hypothesis tells the researcher precisely what he needs to find out in his study; it tells the investigator the relationship between the variables with which he is to be concerned. It represents predictions or tentative solutions to the problem.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- formulate Islamic studies research hypothesis
- state sources of hypothesis
- explain function of hypothesis
- describe characteristics of hypothesis
- provide types of hypothesis.

3.0 MAIN CONTENT

3.1 Formulating Hypothesis

1. Hypothesis should be clearly and unambiguously stated: "this means that a hypothesis should not contain terms with double or doubtful meaning."
Moreover, it should be stated simply – that is, only a few concepts and their relationships should be incorporated into one hypothesis at a time.

This will reduce the complex nature of the hypothesis thereby making it easy to understand and easy to obtain information for testing it. A hypothesis should clearly specify outcomes which can be tested directly.

2. Thus if any word implies many concepts in a problem understudy, then more than one hypothesis should be stated to ensure that more concepts than necessary are not built into only one hypothesis.

3. Hypothesis should state the relationship between two or more variables: this third characteristic implies that main features of a problem should be brought into a cause-and-effect or other forms of relationships. By this means the hypothesis would be to specify a guessed relationship between variables.

4. It should be testable: This refers to the verifiability of a hypothesis. This means that a hypothesis should be stated in an operational form by showing that the main concepts exist such that the claims of the hypothesis could be confirmed by empirically collecting information. This also implies that the variables should be measurable and accessible within a reasonable time. Stating a hypothesis that would require waiting longer than necessary for certain variables in the hypothesis to mature should be avoided. Variables that cannot be measured using known and available tests or techniques are not encouraged.

SELF-ASSESSMENT EXCERCISE 1

Give a vivid description of a good hypothesis**.**

3.2 Sources of Hypothesis

These are similar to those of research problems, they are:

1. ***Personal Experience:*** the personal experience of the researcher affects the variety and quality of guesses he can generate for solving the problem understudy.

2. ***Literature Review:*** A review of literature will expose the research workers to the experiences of others and especially to the findings of previous studies which will likely raise new questions as well as providing the research needed information for reducing tentative answers to the current question under study. A review of literature also gives him new ideas for improving the quality of his hypothesis.

3. ***Theory:*** the vast array of theory developed in other art and social sciences like history, psychology, sociology, public administration and anthropology could be the basis for generating hypothesis by the researcher. A theory based hypothesis can be derived from theory-based problem as explained earlier on in this unit. Example of theory-based hypotheses is:

   Analytic subjects are generally superior to non-analytic subjects in learning concepts based on objective similarity of detail among stimuli (Lee Kagan and Rabson, 1963)

4. ***Logic:*** a hypothesis can be sourced from logic or the art of reasoning – that is, by means of deductive and inductive reasoning. If the problem being studied is to determine the relationship between X and Y, a hypothesis can be generated by either the deductive or the inductive process of reasoning. Deductive reasoning was first introduced by Aristotle (Cohen and Manion, 1989) and it is made up of a major premise based on a self-evident proposition; a major premise providing a particular instance and a conclusion.

It assumes that new knowledge can be acquired or problems solved through a sequence of normal steps from general to particular. Tuckman explains it as follows: When general expectation about events based on presumed relationships between variables are used to arrive at more specific expectations (or anticipated observations), that process is called deduction. On the other hand Mouly (1978) describes Francies Bacorts inductive reasoning by stating that if one collected enough data without preconceived notion about their significance or orientation-thus maintaining a complete objectivity, inherent relationships pertaining to

the general case would emerge to be seen by the alert observation. That general statement of relationship emerging from combined specific observation is the hypothesis from inductive process.

SELF-ASSESSMENT EXCERCISE 2

Mention sources of research hypothesis. Illustrate your point as much as possible.

3.3 Functions of Hypothesis

A hypothesis is a very important tool of research in the humanities, educational, social sciences researches in the following ways:

1. It directs attention to the problem. That is, hypothesis helps bring problem to sharp focus by making clearer the important issues in the problem. The researcher will now be in a better position to understand more, the problem he is about to solve.

2. It guides the research by delimiting and directing the search for evidence pertinent to the solution of the problem. In this regard the research worker will collect only information that is relevant instead of dissipating energy on aimless search which leads to the collection of junk data that may have little or no bearing on the solution of the problem.

3. It provides the frame work for deciding on appropriate research design especially the tools and techniques for data collection and analysis.

4. It is a powerful and invaluable tool for the advancement of knowledge. This is because hypothesis is testable, since it makes it possible for man to leave the confines of his mental ability or reasoning to seek.

SELF-ASSESSMENT EXERCISE 3

Discuss the functions and types of hypothesis.

3.4 Characteristics of Hypothesis

Good hypothesis must fulfill the following conditions:

i. They must have direct bearing on the problems stated.
ii. They should state the relationship or difference between two or more variables.
iii. They should be clearly and unambiguously stated.
iv. They should be testable such that their implications can be deduced.

v. The guessed solution in a hypothesis should be reasonable such that it does not form an open conflict with studies that have been confirmed, validated and established.

SELF-ASSESSMENT EXERCISE 4

Give account of the characteristics of a good research hypothesis.

3.5 Types of Hypothesis

Hypotheses are classified according to how they are stated. These are: research hypotheses (which are stated in declarative form) and statistical hypotheses (which are stated in null or no effect or negative form and alternate form).

i. The Research Hypothesis

This states the relationship or difference expected between two variables. It can be written in two forms, non-directional and directional. The non-directional shows that a relationship or difference exists. For instance, using example instructional games, the hypothesis can be stated as:

There is a significant difference in the level of performance of students after the use of instructional games as compared with before games. The level of performance of students improved after the use of instructional games. The non-directional hypotheses are tested with two-tailed test of significance while the directional – hypotheses are tested with one-tailed test of significance.

ii. The Statistical Hypothesis

This is so called because it is the hypothesis tested in a research. It states a procedure of 'no effect' in influencing the outcome. A null-effect means that there is no relationship or difference between the variables under study. It implies that any occurring relationship is a chance – relationship and not a true relationship. For instance:

There is no significant difference in the level of moral awareness of the students before and after receiving moral courses and bagging first degree in Islamic studies. One major disadvantage of null hypothesis is that it does not express the researcher's true expectation with regard to the result of the study. In order to solve this major crisis, an alternate hypothesis is stated: this hypothesis is the non-directional research hypothesis and it is stated alongside the null hypothesis.

4.0 CONCLUSION

Hypothesis should be stated clearly, we need to know here that hypotheses are not a must in all studies but where the data generated is large and statistical in nature, hypotheses become inevitable.

A hypothesis is the unexpected but unconfirmed relationship between two or more variables (Singleton and Straits, 1999). Hypotheses are usually not statements of belief; instead, they should state a relationship that is precise and easily observable or measurable.

5.0 SUMMARY

This unit discussed formulation of hypothesis and sources of hypothesis. Efforts were made to identify functions, characteristics and different types of hypotheses.

6.0 TUTOR–MARKED ASSIGNMENT

1. What is hypothesis?
2. List three sources of hypothesis?
3. Identify three characteristics of hypothesis.
4. Mention two basic types of hypothesis.

7.0 REFERENCES/FURTHER READING

Durojaiye, O. B. (2011). *PCR 312: Peace Research Methods*. Abuja: NOUN.

Hassan, T. (1995). *Understanding Research in Education*. Lagos: Mayfield Publishing.

Ogbulogo, C. *et al*. (2010). *ENG 311: Research Methods*. Abuja: NOUN.

Olatoye, M. A. (2008). *The Fundamentals of Behavioural Research Methods*. Lagos: Meritworth Publications.

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WEB SOURCES

www.whatishypothesis?
www.google.researchhypothesis
www.mama.hypothesisandresearchinartsubject

UNIT 2 THE VARIABLE AND ITS TYPES

CONTENTS

1.0 INTRODUCTION

The most useful way to categorise variables is either as independent or dependent. This categorisation is highly useful because of its general applicability, simplicity, and special importance, both in conceptualising and designing research and in communicating the result of research. Independent variable is the presumed cause of the dependent and its effect. The independent variable is the antecedent; the dependent is the consequent. Since one of the goals of Islamic studies, arts and social sciences is to un-cover relations between independent and dependent variables it is the independent variable that is assumed to influence the dependent variable.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain variable
- list and explain different types of variable.

3.0 MAIN CONTENT

3.1 What is Variable?

Variable is an attribute, property or characteristics which can change from individual to the next. In this regard, intelligence is a variable since different people have different I.Q's (Intelligence Quotients). Variable is also something which can change either qualitatively or quantitatively.

3.2 Types of Variables

1. Independent and dependent variables
2. Active and attribute variables and
3. Continuous and categorical variables.

The terms "independent variable" and "dependent variable" come from mathematics, where X is the independent and Y is the dependent variable. This is probably the best way to clink independent and dependent variables because there is no need to use the touchy word cause and related words, and because use of such symbols applies to most research situations. There is no theoretical restriction on numbers of Xs and Ys.

Independent Variable is a manipulated variable that cause effect on other or cause change in other variable. In non experimental research where there is no possibility of manipulation, the independent variable is the variable that has presumably been "manipulated" before the investigator got it.

Dependent Variable is the attribute, property or characteristic which manipulation of the independent variable is meant to change. It is a variable predicted to or an output variable where the effect or manipulation of independent determines.

Sometimes, there is the possibility of a variable being an independent variable in one study and a dependent variable in another. Here, there is no possibility of experimental manipulation, but the variable is considered to "logically" have some effect on a dependent variable. Subject characteristic variables make up most of these types of independent variables.

Active and Attribute Variables

Any variable that is manipulated then is active variable "manipulation" means essentially doing different things to different groups of subjects. As we will see clearly in a later chapter where we discuss in depth the differences between experimental and non-experimental research.

4.0 CONCLUSION

When a researcher does one thing to one group (for example, positively reinforces a certain kind of behaviour), and does something else to another group, or has the two groups follow different instructions, this is manipulation. When one uses different methods of teaching, or rewards the subjects of one group and punishes those of another, or creates

anxiety or worries through some instructions, one is actively manipulating the variables.

Another related classification, used mainly by psychologists, is stimulus and response variables. A stimulus variable is any condition or manipulation by the experimenter of the environment that evokes a response in an organism. Examples abuse of Almighty Allah as gods or the use of a page in *Al-Qur'ān* for toilet purpose in order to provoke the Muslim Ummah.

5.0 SUMMARY

Variable is a necessity in any field of research because it is a phenomenon that is associated with human and research activities. This is the main subject of discussion in any research work. This unit however, discussed variable and different types of variable.

6.0 TUTOR–MARKED ASSIGNMENT

1. What is variable?
2. Mention three types of variable you know.
3. Which of the variable ameliorates the effect of independent variable on dependent variable? Give examples.

7.0 REFERENCES/FURTHER READING

Durojaiye, O. B. (2011). *PCR 312: Peace Research Methods*. Abuja: NOUN.

Hassan, T. (1995). *Understanding Research in Education*. Lagos: Mayfield Publishing Company.

Ogbulogo, C. *et al*. (2010). *ENG 311: Research Methods*. Abuja: NOUN.

Olatoye, M. A. (2008). *The Fundamentals of Behavioural Research Methods*. Lagos: Meritworth.

Peji, M. (1982). *Social Science Research Methods: An African Handbook*. London: Hodder and Stoughton.

WEB SOURCES

www.googlefish/researchhypothesis
www.google/formulationofresearchhypothesis

UNIT 3 RESEARCH PROPOSAL

CONTENTS

1.0 INTRODUCTION

The preparation of a proposal will entail selecting an effective title, developing an effective summary, articulating the study objectives/hypothesis, writing a good introduction, choosing appropriate experimental design/methods, planning for expected/unexpected results and developing a realistic budget. Thus this unit acquaints you with what a research proposal is all about in its entire ramification.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- discuss the concept and meaning of research proposal
- describe some features of research proposal
- highlight the format for writing project proposal.

3.0 MAIN CONTENT

3.1 The Concept and Meaning of Project Proposal.

In an attempt to discuss this subject, it is important to start with the question what does a research proposal mean? Put simply, a research proposal is a statement or planning document of intent, which shows how a study would be executed (Mouton & Marais 1996). In other words, you have to lay out the details of your plans for someone else's review or approval. The approving body or person might be an instructor\lecturer, or a funding agency whose resources (time or money) you intend to spend (Babbie and Mouton, 1998).

As it is with every rational man or venture, resources have to be judiciously expended on projects that would meet the organisation's goal and also benefit or reach the end user of the product. It is in this sense that supervisors or assessors are concerned with how their resources would be utilised and the extent to which the programme being proposed meets their need as well as benefits the end user of the outcome (findings).

It is, therefore, clearly of considerable importance that the proposal should convey a favourable impression of the project and shed light on the researcher's ability to handle the subject. In other words these questions should get positive answers.

i. Does he know the subject sufficiently well?
ii. Is the area of study relevant to the contemporary issues of interest?
iii. In other words: Is research in the area desirable?
iv. Does the plan and use of time convey an impression of the researcher's competence and ability to execute the project successfully?

These, among other issues, determine the quality of the proposal.

A research proposal is a proposal submitted to an academic institution for the purpose of a degree. It is expected to show your examiners that you can do good research for your project. It must be a well-written document (like an extended paper or a thesis) containing a thorough study of your research topic.

The principal aim of this type of proposal is to provide information about the intended research project in terms of content and methodology so that a Department, Institute or Faculty could assess:

i. The feasibility of the project
ii. The suitability of the candidate being registered for a research degree (Master or Doctorate), and
iii. Who is the most suitable member of the academic staff to serve as supervisor to the candidate?

The proposal should normally be developed in consultation with a member of staff, and should not exceed 5000 words. It is generally understood that the student may need to deviate from the proposed outline as the actual research degree unfolds.

SELF–ASSESSMENT EXERCISE 1

Explain Research proposal in some details.

3.2 Time and Features of Project Proposal

To answer the question of when the proposal should be written, the following points have to be considered:

i. A research proposal (particularly at the postgraduate level) is an interactive process.
ii. A substantial amount of work has to be done before a proposal could be written
iii. Some institutions assume that a research proposal will be written over six or even nine months or even at the point of registration of title
iv. Seek advice on your draft from supervisors and peers.

Meanwhile the features of a project proposal bear similarities to those of the final dissertation/ /thesis and a paper in a learned journal. A good proposal should provide the synopsis of the chapters of the project.
It should begin with a statement of the problem / background information (typically Chapter 1 of the project), then move to a review of the literature (Chapter 2), defining the research methodology i.e. data collection and instruments to be used (Chapter 3) and conclusions (Chapter 4).

Obviously, it should be written in a future tense since it is a proposal. To turn a good proposal into the first three chapters of the dissertation /thesis consists of changing the tense from future tense to past tense (from ‘’This is what I would like to do’’ to ‘’This is what I did ’’) and making any changes based on the way you actually carried out the research when compared to how you initially proposed to do it. Often the intentions we state in our proposal turn out differently in reality and we then have to make appropriate editorial changes to move it from proposal to project.

SELF-ASSESSMENT EXERCISE 2

When should a proposal be written? Give its features.

3.3 Format for Preparing Proposal

The proposal would normally include the following components, depending on the project:

A. Topic and Statement of the Problem

The topic is usually framed as a ‘’problem’’ or question in need of an answer. The topic statement will invite your reader to ask why it is significant and ‘’ worth doing’’. A good research proposal identifies in the research topic a ‘’problematic’’ to be investigated. Your statement of this will result from discussion of your area of interest with potential supervisors, mentors and others.

It should, therefore, be stated clearly in one or two sentences determined after consultation with potential supervisors.

Framing the question is not always easy, and you need to ask yourself whether your proposed ’’problem’’ or ‘’research question’’ is really the question to be asked and answered. The framing of the problematic is crucial in setting up the research, though it is common for researchers to revise and reformulate this as the research progresses.

i. What is the relevance of and the rationale for choosing this area of enquiry?
ii. Why is the research question posed in the way it is?
iii. Does the candidate have any particular motivation for posing this question or does he/she possess any expertise in this area?

SELF–ASSESSMENT EXERCISE 3

Discuss how the topic and statement of the problem should be presented in a proposal.

B. Background and Context

In sketching this background, you need to show how and why the topic came to be important and why it is worth researching. This means:

i. Contextualising the research problem – how does it arise?
ii. Highlighting its significance – what will be outcomes, and for whom?
iii. Referring to key issues that are associated with the topic.

Background can be provided in several ways. Your theoretical, doctrinal or interest, practices or concerns may have generated the research, and its justification is to be found in a theoretical development or related literature. Where professional practice is the focus, you may want to describe and analyse the context of policy or organisational changes.

In any case, you should summarize the influences which come into play to shape your research. You need to ask what interests are driving the research and from whose point of view the problem is ‘’significant’’.

SELF-ASSESSMENT EXERCISE 4

What do you need to show in presenting background and context of a proposal?

C. Conceptual Framework and Related Literature

This should include a brief critical review of the literature relevant to the research question. What are the main texts and trends informing the thinking which has led to the formation of this research question? It should deal with such matters as:

i. Existing relevant theories, doctrines or practice(s)
ii. Existing researches and its relevance for your topic
iii. Key ideas in your approach
iv. Possible lines of inquiry you might pursue.

Your proposal needs to show how the proposed research relates to a body of related studies, or literature. The orthodox way to do this is to write a brief version of the literature review. Another is to outline the kinds of theoretical sources that will inform your research – the available research perspective. This is not always possible, especially if there is little related past research. A well- developed proposal will include a conceptual framework.

SELF-ASSESSMENT EXERCISE 5

Relate the two major components of the conceptual framework and literature review in a proposal.

D. Research Design and Methodology

How are the main hypothesis and assumptions going to be investigated or researched?

An outline of the methodology, research design and procedure for data collection should be given. This section typically might refer to an accepted design, method or approach; Describe how data will be generated, analysed and findings reported.

SELF-ASSESSMENT EXERCISE 6

Discuss the content of research design and methodology briefly.

E. Research Plan and Timeline

An outline of the approximate timetable of the various stages of the proposed research, from conception till completion, should be given. Your plan should specify what tasks you will complete at each stage- literature review, research framework, description of method, writing up findings and conclusions and so on. These tasks should specify what writing tasks will be accomplished and when. Your time and other resources to complete the degree programme are limited. Plan how you would complete the task ahead in the minimum time.

Project writing is a challenging writing task. It will be helpful for you to specify what writing outcomes there will be at each stage.

4.0 CONCLUSION

We hereby conclude by highlighting **s**uccess indicators for research proposals as follows:

1. Clearly defined research question
2. Appropriate literature which provides a background to the problem
3. Use of other sources to identify/support the problem
4. Objectives clearly specified
5. Conceptual framework and theoretical assumptions clearly stated
6. Appropriate design and methodology
7. Promotes further research
8. Preliminary data/ pilot study
9. Necessary resources available.

5.0 SUMMARY

The core components of a research proposal are summarised in the following:

- a description of the research question
- an indication of why the problem is relevant
- a review of relevant literature
- a description of the proposed methodology
- a time frame.

In other words, what do you want to do? Why do you want to do it? Why is it important?
Who has done similar work? How are you going to do it? How long will it take?

6.0 TUTOR–MARKED ASSIGNMENT

1. Write four main components of research proposal.
2. Write a topic and sketch out likely content of its proposal.

7.0 REFERENCES/FURTHER READING

Ahmad, S. (1982). *Kayfa taktubu bahthan aw risaalah.* (15th ed.). *Cairo:* Maktabat a`n-Nahdah al-Misriyyah

Hassan, T. (1995). *Understanding Research in Education*. Lagos: Mayfield Publishing Company.

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UNIT 4 LITERATURE REVIEW

CONTENTS

1.0 INTRODUCTION

As already noted, literature review actually commences as soon as a topic is conceived. The rationale for this is clear. At this stage of the study, the need for detailed review of relevant material on the subject is paramount for the researcher to know what other scholars have done and how or where they were executed. It would also assist the researcher to know how, if any, the current study would be different from earlier ones.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- relate the concept of literature review
- state purpose of literature review
- state sources of literature review
- write example of a literature review.

3.0 MAIN CONTENT

3.1 Literature Review and Its Purpose

Literature review is meant to facilitate a critical analysis of the data in the area of problem to be probed. Information of other or earlier researchers is necessary to buttress or jettison the data from the field. In this way, the reviewed works benefit the research conducted in formulating an appropriate theory to guide the study and direct the trend

of discussion. This also helps in the selection of the research method to be adopted in the course of the research.

A review of the literature serves the following purposes:

i. Provides a conceptual framework for the research.
ii. Provides an integrated overview of the field of study.
iii. Helps establish a need for the research.
iv. May help clarify the research problem.
v. Helps to demonstrate the researcher's familiarity with the area under investigation (theory and/or methods).

SELF-ASSESSMENT EXERCISE 1

What is the significance of literature review?

3.2 Skills involved in Producing Literature Review

Production of a good literature review generally entails:

i. Surveying a comprehensive range of existing material and sources in the general areas of your study;
ii. Selecting those that will be most relevant and significant for your particular project;
iii. Understanding and analysing the main findings and arguments;
iv. Synthesising the findings and integrating them into the research proposal.

3.3 Sources of Literature

There are two basic sources of literature review:

1. Primary sources

a. Unpublished Work: researcher may check the section of titles recommended for further studies. This is often written at the last chapter of NCE, Degree, and Master degree projects.
b. Professional Journals: these are where database reports are presented by the professionals as first hand reports.
c. Government Publications: these include books, pamphlets and gussets published by the government or government agencies.
Manuscripts which have not been edited or published, private official documents such as official government papers the like of which are kept in the National Archives.

The private memoires of senior government officials including personal diaries kept by such officials.

2. Secondary sources

a. newspapers often contain contemporary issue, information on conferences reports.
b. textbooks, monographs and scholarly articles.
c. periodicals
d. magazines
e. speeches of public figures
f. museum and artifacts

SELF-ASSESSMENT EXERCISE 2

Highlight the skills involved in writing review of literature for a project. Enumerate the two basic sources of literature review.

3.4 How to Write a Literature Review

In writing a literature review:

1. Indicate the ways in which the authors you are reviewing will be relevant to your research (information; theory; methodology). Undertake an unbiased citation of papers with contrary views.
2. Demonstrate that you understand the similarities between these works and paradigms.
3. Where do they stand in relation to each other?
4. Where does your research stand in relation to them?
5. The works that you refer to should reflect recent scholarship as well as those considered of seminal importance. If possible, cite papers less than 10 years old.
6. If the study is cross-disciplinary or comparative, you need to describe how the different areas of research can be drawn together in a meaningful way.
7. Cite your previous work but show moderation.
8. Cite only papers you have actually read.
9. Seldomly cite unpublished, non-peer reviewed material.

The following questions will help you in compiling literature review:

1. What are the broad bodies of literature that have relevance for your research topic (local and international)?
2. What theoretical model(s) relate to your research topic?
3. What theories, methods and results have previous researchers in your field produced?

4. What are the most recent findings in your area of study?
5. What gaps or contradictions exist among these findings?
6. What new research questions do these findings suggest?
7. What structure suits my literature review best?
8. What should I leave out?

Useful Tips on How to Write Literature Review Section

i. Keep up with the literature in your area of study and make notes about important papers throughout the duration of your programme.
ii. Read extensively in the area that either is directly or indirectly related to the topic of study.
iii. When you read about a topic related to your area of study, write down the following about what you have read; the title, author(s), year, volume and pages.
iv. Make a concise summary of the main arguments in the literature you have read in your own words.
v. Do not concentrate on research findings when reading research articles, thus overlooking valuable information on methods etc.
vi. Make sure you read relevant papers about your likely examiners or potential employers.
vii. There is no limit to the number of papers to be included in a logical order depending on the purpose of study. For example, the review could be approached chronologically so that the trends in the development in the area of research could be followed.

SELF-ASSESSMENT EXERCISE 3

Highlight major issues to be addressed in reviewing literature for your project**.**

4.0 CONCLUSION

Literature review serves as the source of specific knowledge, research topic, theory, conceptual frame work and research methods.

- it is all about conducting information search to solve a research problem
- it acts as a bridge between what is known and unknown about the research problem
- it is a vehicle for illustrating why and how the study can be carried out in terms of methodology and the current state of knowledge in the problem area.

The literature review should contain only prior research works and advanced materials review of basic theories is a pre-requisite for the research not a part of it.

The literature review section of a Project should address the following four questions:

- where did the problem come from?
- what is already known about the problem?
- what suggestions do previous studies recommend for further studies?
- what are the mistakes of previous studies?

In most cases, the concluding section of a review should be able to identify the gap in knowledge the student intends to fill.

5.0 SUMMARY

This unit details discussion on literature review by identifying the purposes, skills involved in production, sources and how to write a literature review. It basically showed that literature review facilitate a critical analysis of generated data from the study.

6.0 TUTOR-MARKED ASSIGNMENT

1. List four main purposes of literature review
2. Explain three major skills involve in producing literature review
3. Mention two sources of literature review and give three examples of each.

7.0 REFERENCES/FURTHER READING

Ahmad, S. (1982). *Kayfa taktubu bahthan aw risaalah.* (15th ed.). Cairo: Maktabat a`n-Nahdah al-Misriyyah.

Hassan, T. (1995). *Understanding Research in Education*. Lagos: Mayfield Publishing Company.

Olatoye, M. A. (2008). *The Fundamentals of Behavioural Research Methods.* Lagos: Meritworth Publishers.

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MODULE 3 DATA COLLECTION AND ANALYSIS, REFERENCING

UNIT 1 RESEARCH INSTRUMENTS: ORAL TRADITION, INTERVIEW QUESTIONNAIRE

CONTENTS

1.0 INTRODUCTION

A variety of instruments are used to gather data in the process of undertaking research. A researcher may want to develop a new instrument or select a readymade one from an item bank. There are different ways of selecting, picking or collecting information, they are called data collection techniques. In this unit we shall examine Oral Tradition, Observation, Interview, and Questionnaire techniques.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify processes involved in oral data collection
- state usefulness of oral data collection

- state different research instruments used for the collection of oral data
- explain questionnaire and list types of questionnaire.

3.0 MAIN CONTENT

3.1 Collection of Oral Data

Oral data are used primarily for studies of ancient and contemporary illiterate cultures, and of today's literate society. Historians and anthropologists are prominent in utilising the former type of work; then other humanists, political scientists, sociologists, psychologists and commercial pollsters joined in the latter. In pre-literate societies orally transmitted data are only verbal material. It gives us stories of some past events and is generally a combination of facts and fiction.

Usefulness of Oral Data Collection

1. It is useful to interview the leading participants in great affairs.
2. It permits a new approach to understanding popular opinion, as a step toward estimating its effect on affairs.
3. The rivers of material produced by typewriter, mimeograph machine, tape recording and printing press, drive us to many devices that reduces labor.

Oral communication has partially replaced some types of written materials with the use of telephone. Collection of oral data is done by taking oral data on tape which may allow individual to record his/her observations informally with little effort shortly after an event occurs. Such recordings are memoirs. Among this recording devices are video tape or films (camera) etc. While taking oral data through interview it is useful to test the respondent's memory and truthfulness by beginning with questions about uncontroversial matter.

SELF-ASSESSMENT EXERCISE 1

Define oral data, state its usefulness and method of its collection.

3.2 Interview

Interview is a face to face interpersonal role situation in which one person, the interviewer asks a person being interviewed, the respondent or interviewee, questions designed to obtain answers pertinent to the research problem.

Interview as Research Tool

Interview is a specific form of empathising, participating and observing what takes place between two people. The interviewer participate by determining the setting or social context in which the interview takes place and asking questions or presenting other stimuli in order to elicit information from the person being interviewed. The informant must be of required age that could have possibly met or be informed about the issue; he must also be a man of high integrity who could be relied upon.

The purposes of an interview are many: i.e. it may be used as the main instrument of the research. It may be used to test hypotheses or suggest new ones or for gathering facts at the exploratory stage of research. It (interview) can also be used to identify variables and relations.

Criteria for Interview Question

1. The question should be related to the research problem and the research objectives.
2. The type of question should be the right and appropriate one.
3. The question should be clear and unambiguous.
4. Avoid leading questions.
5. The questions should not demand personal or sensitive information that the respondent may resist.

SELF-ASSESSMENT EXERCISE 2

i. Define interview as an Instrument of research.
ii. Give the criteria for its questions.

3.3 Questionnaire

Derived from the old French term, questionnaire simply suggests a collection and, or a form, containing a set of questions addressed to a statistically significant audience for which response (information) are elicited for a survey. Researchers adopt this pattern when the intention is to determine the extent to which respondents hold a particular attitude, view or belief. In this case, the investigator swiftly asks the respondents to kindly indicate their feelings on the basis of Rensis Likert scale, a format in which participants are requested to strongly agree, agree, disagree, or strongly disagree or perhaps, strongly liked, liked, disliked or strongly disliked. It can also be sure, very sure, not sure, very unsure; strongly appreciated, appreciated, rarely appreciated, and so forth. The questionnaire consequently, is a less expensive way to gather information (data) from a potentially large number of respondents (otherwise, participants) in a survey study especially.

Before a researcher from either the behavioural science and or humanities decides to use the questionnaire these facts however, should be considered:

- the aim/purpose (objectives) of the study/survey
- review of literature in relation to the intended study area/focus
- what the research vacuum that the present study sought to fill
- find out through a random opinion survey current views on the problem area
- compare the opinion survey with the information from related studies (or literature) before the actual construction of the questionnaire is done.

SELF-ASSESSMENT EXERCISE 3

Define questionnaire. Illustrate your answer with samples.
State the facts that should be considered before using it as instrument of research.

3.3.1 The Use of Questionnaire

The questionnaire is a powerful evaluation tool in behavioural sciences. If well designed, it can be a very reliable and veritable tool:

(a) to complement facts emanating from either diagnosis and, or clinical findings
(b) to validate the authenticity of a statement, findings for generalisation etc
(c) when rigorous experimentation cannot be adopted (i.e. Intervention studies are not needed)
(d) when information is needed from a large audience or participants to facilitate statistical analysis of results from opinion survey
(e) necessary for testing hypothesis to establish the continuous relevance of a theory
(f) to corroborate other findings
(g) to protect the identity or privacy of the respondent (participant).

SELF - ASSESSMENT EXERCISE 4

When do we resort to the use of questionnaire as research instrument?

3.3.2 Types of Questionnaire

Open–Ended Questionnaire

As its name implies, the open –ended format constitute the unrestricted and sometimes endless views or opinions of a respondent or group of participants in a study expressed in the space provided in the questionnaire. The open–ended items are used when the researcher either wants the respondents to respond in their own words and, or when the researcher does not know all of the possible alternative responses. In the open- ended questions, there are no predetermined set of responses and the participants are free to answer in what manner they chose. It easily provides a rich opportunity for wide variety of responses.

The Closed–Ended Format

The closed-ended items are used when there are a fixed number of alternative responses. In adopting this format, the respondents are asked to select an answer from among a list provided by the researcher. The closed – ended format has the advantage of simplifying the respondent's tasks as well as the researcher's analysis of results.

SELF-ASSESSMENT EXERCISE 5

Explain the two types of Questionnaire format briefly.

3.3.3 Pitfalls in Questionnaire Construction

Whether the goal (objectives) of a well-designed questionnaire is known and adequately stated or not, there are some obvious and non- easily avoidable pitfalls when it is used. Such pitfalls are usually the result of the type of format (i.e. open-ended and close-ended) adopted in the construction of its items. Whenever the open-ended format is followed, the likely pitfalls of these are:

1. The composition of the items which demand that the responses following them must be read separately.
2. There may be no easy way to automatically tabulate or perform statistical analysis on the items.
3. The interpretation of the items may demand some special skills which the researcher may not possess.
4. The response - item may be the subject of multiple interpretations as no two people will read and interpret any information the same way.
5. Time and money as well as other resources needed for its successful completion may be inadequately supply.

6. The type of information expected by the researcher may be too tasking on the part of the respondents. If the item statements are too loaded and many, the chances that several items may be returned unattended could be high.
7. Interpretation can also be researcher's bias.
8. Very irrelevant and incoherent responses can be provided by the respondents which may be outside the scope of the researcher's intention.

Pitfalls Using the Closed – Ended Format

These include:

(i) Restriction in terms of the information that can be provided by the respondents on a particular subject – matter when the researcher structures the responses.
(ii) The researcher's failure to use another category labeled as ''other (please specify…..) in opinion survey.
(iii) The answer of response categories may not be mutually exclusive, the researcher or investigator should carefully consider each combination of categories to avoid more than one answers.

This can be effectively done by providing useful instruction of the question asking the respondent to select the one best answer.

SELF-ASSESSMENT EXERCISE 6

Highlight the possible pitfalls in questionnaire construction.

3.3.4 Critical Variable to Questionnaire Construction

Questionnaire design is a long process that demands careful attention. Though a questionnaire is only as good as the questions it contains, there are certain guidelines (otherwise, variables) that must be met before any questionnaire can be regarded as a sound research tool. Some of these are:

(i) Clarity: The major hurdle in questionnaire design is on how to make it clear and understandable to all. For any questionnaire to be relevant, it must be clear, succinct, and stated in an unambiguous manner. When items in a questionnaire are well stated, the aim is to eliminate the chance that the question will mean different things to different people. As part of clarity, colloquial or ethnic expressions that may not be equally understood by all the participants should be avoided.

(ii) Avoidance of double – barreled questions
(iii) Asking leading questions
(iv) Use of short items rather than clumsy statements
(v) Use of appropriate phrases
(vi) Avoid embarrassing and hypothetical questions as well as biased items.

SELF-ASSESSMENT EXERCISE 7

Enumerate the six critical variables to questionnaire construction.

3.3.5 Questionnaire Construction Proper

In considering the actual construction of the questionnaire, the following items may be important; and these are:

(i) General Questionnaire Format: Important in this format is the way question and items are spread out. Clustered question – items can be misleading and confusing both to the respondents and researcher during analysis and interpretation. Thus, as a general rule, the questionnaire should be spread out and it should not be clustered.

(ii) Format for Respondent: Several formats are notably available to which the respondents are expected to check-in their responses. Using the brackets, the parenthesis and the printing of a code number beside each response are considered appropriate. Some examples include the following:

Three answer formats
{ } Yes
{ } No
{ } Don't Know

Circulating the answer

	Tick (√)
1. Yes	
2. No	
3. Don't know	

(iii) Contingency Questions: These are question statements that are conditional or responses that are dependent on previously determined item- statements. For instance, the intention to ask whether some respondents belong to a particular organisation may elicit a question on how often they attend meetings. There

are several formats for contingency questions though the clearest and probably the most effective is:

A. Have you ever smoked marijuana?
( ) Yes ( ) No

B. If yes, about how many times have you smoked marijuana?
( ) once
( ) 2 to 5 times
( ) 6 to 10 times
( ) 11 to 20 times
( ) more than 20 times

C. If no, why have you not smoked?
{ } Personal
{ } Parents as model
{ } Medical advice
{ } Friend's counsel
{ } Moral ground

It is equally important to note that contingency question can be both complex and extensive, although, if well utilised in a survey, it can be a reliable source of information.

SELF-ASSESSMENT EXERCISE 8

Explain the under-listed three items which are important to the actual construction of questionnaire. Illustrate your points.

i. General questionnaire format
ii. Format for respondent
iii. Contingency questions.

iv. Matrix Questions

Whenever questions are asked and the same sets of answer categories are provided, the format is the matrix question type. This is typically the case whenever the Likert response categories are used. In such instances, it is easy to construct a matrix of items and answers as indicated in the example below:

Beside each of the item – statements presented below, please indicate whether you Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) or are Undecided (U).

a.	What this country needs is more law and order.	SA	A	D	SD	U
b.	Education from primary to tertiary level should be made free and compulsory.					
c.	Retirement age should be increased to 70 years for all categories of workers.					
d.	A government that does not pay gratuity and pension should be sacked with immediate alacrity					

Format has a number of advantages; some which are outlined already in the closed - ended format. First, it uses space efficiently. Second, respondents will probably find the method faster to complete as a set of questions presented in this fashion. Third, it may also increase the comparability of responses given to different questions for the respondents as well as the researcher.

SELF-ASSESSMENT EXERCISE 9

Define matrix question and mention its advantages. Illustrate your answer with diagram.

(v) Ordering Questions in a Questionnaire

The order in which questions are placed or asked in a questionnaire can also affect the type of answers to be given. First, the appearance of one question can affect the answers given to later ones. For instance, if a number of questions have been asked about the dangers or likely problems of electing into office, Ibrahim Babangida in 2007 to Nigeria politics; then a question asks respondents to volunteer (Open-ended) what they believe would happen to Nigeria. Usually it is preferably to ask the open –ended question first. To overcome the difficulty and confusion following the ordering of questions, some researchers do in a futile manner adopt the random setting of questions. Since adopting this method may both be confusing to researchers and respondents, the safest solution is sensitivity to the problem (Babbie, 1989). Even though the issue of question order is important and should not be ignored, knowing the number of stems expected in a question is of equal importance while a sequential planning and arrangement is suggested. If the order of question is really of utmost importance in a study, the suggestion is that more than one version of the questionnaire containing different possible ordering of questions may be constructed. The possible effect can then be known if it had to be ignored.

The desired ordering of questions also differs somewhat between self-administered questionnaires and interviews however. For self –

administered questionnaire, and which is the focus of this section, it is usually suggested that the questionnaire should begin with the most interesting set of questions. This is very important as some potential respondents who glance casually over the first few questions would have their interest sustained and should want to answer them. To do this adequately well, the section should reflect on question- items that do not threaten the privacy of the respondent nor are embarrassing to them.

Somehow, it may be nice to also reflect such request for demographic data (e.g. age, sex, number of children etc.) at the end of the self-administered questionnaire to avoid the stereotype of a routine format. However, for the interview surveys the ordering format is definitely different.

SELF-ASSESSMENT EXERCISE 10

Discuss the ordering of questions in a questionnaire.

(vi) Instructions

To retain the usefulness of a questionnaire, it must have or contain adequate instructions to direct the respondents on the way and manner it is to be completed. The instructions must be provided in clear unambiguous statements and may be followed, with some introductory comments about the purpose of the questionnaire. Such basic instruction as ‘’please kindly indicate your answers to the under listed question-statement by placing a check mark or an X in the box beside the appropriate answer or by writing or ticking the respective columns” will be a very useful guide to the respondents. Short and simple introductory remarks and instructions help make sense out of the questionnaire by allowing it to be less – chaotic and cumbersome, especially when it taps a variety of data. The respondents are also put in their correct frame of mind for answering the questions. This method also allows the researcher to code his data adequately for analysis while it reduces the possibility of unrequested response. It is important to also sound a note of warning that the sections and subsections with typical intent should also be given adequate instructions. Such can be the case where the respondents are asked to rank – order their responses. Such instruction should indicate how many answers are to be ranked and by what means (e.g. ranking from 1 to 10) with the first, indicating the highest possible value and so forth.

SELF–ASSESSMENT EXERCISE 11

Adequate instructions to direct the respondents are important component of questionnaire. Discuss

Arrangement of a Draft Questionnaire

This is a process to establish the validity and reliability of measures obtained with questionnaire. In doing this the questionnaire has to follow these three structures;

1. Instructions
2. Personal information and
3. Body of items

Instruction: is a directive that conveys the purpose of the questionnaire and provides the kind of information that should elicit appropriate response.

Personal information to be provided in this section includes, sex, age, educational background, economic status, marital status, etc.
Body of questionnaire: this is called respondent reaction section, this involves:

i. Layout: this is design and physical appearance of the questionnaire.
ii. Length of questionnaire: a short and attractive appearance with clear printout will appeal to psychological instinct of the respondents.
iii. Respond mode: this has to be straight forward; it should not be complicated. The respondent should be requested to tick, shade or write.
iv. Item sequence: the items (elements) in the questionnaire are to be arranged in a logical sequence.

4.0 CONCLUSION

Apart from written research instruments, oral tradition, Interview and questionnaire are applicable for data collection in the humanities and social sciences researches even though they are generally a combination of facts and fiction.

In our contemporary times oral data such as interviews can be collected in tapes, CDs and videos.
Interview may be used as main instrument of research to test hypothesis, gather facts or identify variables. The informant must be of age and reliable.

Questionnaire is administered when investigator intends to determine the extent to which respondents hold a particular attitude, vie, beliefs etc, etc. It is by providing information on structured format such as

Rensis Likert scale. It is applicable in medicine, sciences and humanities studies.

5.0 SUMMARY

This unit sees to the oral data collection, usefulness of the collection and types of scale that are being used as measuring instrument. The unit also examined collection of written data as research instrument. Various collection techniques were identified such includes observation, questionnaire, interview and test. Validity and types, reliability and types of reliability were among other issues revised in this unit.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the major ways of collecting data orally
2. State some utilitarian benefits of oral data collection
3. List four methods used for the collection of written data
4. List five types of questionnaire and explain how you construct one of them.

7.0 REFERENCES/FURTHER READING

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UNIT 2 SAMPLING TECHNIQUES

CONTENTS

1.0 INTRODUCTION

A general procedure to be followed by a researcher before going into sample selection is stated as follows:

Step 1 The identification of the population.
Step 2 The determination of the required sample size.
Step 3 The selection of the sample.

Once a researcher has identified research topic (problem), formulated research hypothesis or questions, and has selected and defined his variables, he is in a position to determine the subjects upon which he works, take observation and measurement. In essence, he must define his population and select his sample from the population.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain population and sample
- identify two major sampling techniques
- list three examples of probability and non-probability sampling methods.

3.0 MAIN CONTENT

3.1 Probability Sampling Method

The total group with which the study is concerned is called the population or universe of concern. The population or universe is the group which the researcher is interested in gaining information upon which subsequent conclusions are drawn. The researcher usually cannot

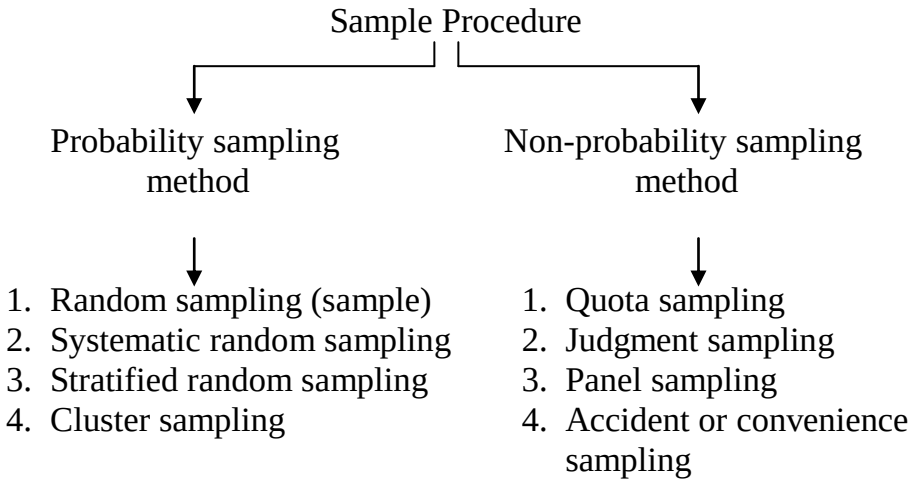
include all individuals with whom he is concerned in his study. Rather, he selects a small proportion of the population through a process of sampling. And the small representative group from the population is called a sample. The more representative the sample is of the population, the more valid it will be to estimate the population characteristics using the sample. Sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the population from where they were selected.

Rarely is it possible to conduct a study in which all units of interest can be brought under direct observation. In fact, not only is it generally impracticable to use the entire group of interest, it is also unnecessary. The population of the study may not be easily reached because it is scattered over a large geographical area. In which case, an attempt to cover this group of interest may result in considerable expenditure of time, money and effort. However, if some members of this population are well selected, it is possible to make a reasonable estimate of the population characteristics from such a sample. The degree to which the sample represents the population is the degree to which results from it can be generalised on the population. Since the purpose of sampling is to gain information about the population from where the sample has been selected, the methods used to select the sample are vital to the accuracy of our inference.

Sampling Techniques

There are two categories of sampling procedure, namely

i. Probability sampling and
ii. Non-probability sampling



Probability Sampling Method

1. Random Sampling

It adopts the principle of randomisation, that is every subject or unit in the population has an equal chance of being selected in the sample and all combinations must be equally probable. It is the most basic of all other random sampling methods except that the system, which does not require replacement, is called the simple random sampling. On each successive draw, the probability of being selected increases due to the fact that fewer individuals are left unselected from the population. Thus, if a sample size N is selected from the population, every possible sample of size N drawn has equal chance of being selected.

There are different ways of achieving simple random sampling. These include:

i. Ballot, where an assignment of subject is written on pieces of paper, which are squeezed and later each subject from the population picks one of the squeezed paper. For instance if YES or NO or if 1 or 2 is written, then, whatever the subject or individual picks either qualifies or disqualifies him or her.
ii. Shuffling cards, this is done by writing the names or the numbers of subjects or units on a card. After which the cards are shuffled, the top card is taken by its owner and the process of shuffling continues until the desired sample size is achieved.
iii. The table of random numbers is another method of achieving simple random sampling. It is the most accurate of achieving minimum biasness. It is similar to the shuffling of cards method only this time around, the numbers corresponding to the labels of selected units in the sample frame are selected from the table, where the numbers are arranged in a purely random order. Thus, any of the numbers; 1,2,3,4,5,6,7,8,9,0 has a chance of appearing in the selection.

NB: A sample frame is a complete list of all the units or individuals in a population.

For instance, the table of random numbers ten be applied as follows: if a researcher requires a sample size of 200 units from a finite population of 4000, since the population number is of four-digits number, then numbers above 4000 cannot be a part of the population neither can numbers, whose number of digits is more than four be a part of the sample. The following procedure is employed in choosing 200 units;

- All units in the population are listed serially from 1,2,3,4,5,6,7,8,9, ……..4000.
- Using random selection, circle any one to four digit values on the table less than (4000).
- The numbers represented on the table are selected from the serially numbered units, to the required sample size of 200.

2. Systematic Random Sampling

Systematic sampling is the sampling technique in which we move down a list of the working population and select every k^{th} individual or item for inclusion in the sample. The k^{th} individual of item for inclusion in the sample is determined by dividing the size of the working population by the sample size. Let us suppose that a sample of 50 persons is to be selected from a list of 1500. Then our k^{th} is 1500/50=30, this implies that we would take every thirtieth (30^{th}) in the list. Our first choice of unit must be randomly selected, providing every one of k units has an equal opportunity of being selected. This can be done by the use of a table of random numbers. Suppose the seventeenth person were selected. The sample would then consist of individuals numbered 17, 74, and 77.10 T...etc.

Given k and the same starting point, the same sample is always selected. Systematic sampling is obviously much simpler than random sampling whenever a list is extremely long or whenever a large sample size is desired.

If the ordering used in compiling the list can be considered to be random with respect to the variables being measured, a systematic sample will be equivalent to a simple random sample. Systematic sampling, in combination with other designs, is often used in social surveys because of its simplicity.

3. Stratified Random Sampling

This method employs a process which puts the subject with similar characteristic in a group called ‘stratum’. It is an applied random sampling method because the subjects from each stratum are represented in the same proportion. The steps in achieving the procedure are:

i. identify and define population for instance 3000 subjects.
ii. determine the sample size; using 10% mark gives 300 subjects.
iii. identify the strata that are variables and sub-group for which you want an appropriate representation.
iv. classify all members of the population as members of a stratum.

v. select randomly (using the table of random numbers) the appropriate number of subjects from each stratum.

There are two types:

Proportional stratified sampling and disproportional stratified sampling

1. **Proportional Stratified Sampling:** this is often used to ensure a more representative sample than might be expected under simple random sampling. If the strata were completely homogenous, proportional stratified sampling would always yield exactly correct results whereas simple random sampling would not. Also if the criterion for stratifying is highly related to the variable studied, the gain may be considerable. Proportional stratified sampling yields satisfactory results if the dispersion in the various strata is of approximately equal magnitude.

   Suppose a researcher is interested in studying academic stress in a University. He may suspect from review of existing literature and from observation that vocational orientation is a significant factor in stress reaction. In this case he may want to divide his population along students' course of studies on the basis of the colleges and faculties. Let us suppose further that the particular university of interest has a population distributed as follow: Arts 2500, Science 1500, and Medicine 500, Social Science 2000, Engineering 1000, Agriculture 1000 and Education 1500; making a total of 10,000 students. If a random sample of 1000 individuals is taken, we might not be able to get exactly 50 medical students or 250 arts students in them. The actual sample may contain relatively too large or too small of each categories specified above. In this case a proportional stratified sample in which the sampling fractions for all the strata were 1/10 would yield more reliable result than a simple random sample.

2. **Disproportional Stratified Sampling:** in disproportional stratified sampling we make use of different sampling fractions to manipulate the number of cases selected in order to improve still further the efficiency of design. There are different situations in which this type of sampling is desirable. This is the situation when either the standard deviations within the separate strata differ considerably among themselves or when the cost of gathering data varies substantially from stratum to stratum. There will always be some optimum allocation for which the sampling design will have maximum efficiency.

In other words, there will be a certain set of sampling fractions that will yield the smallest sampling error for a give cost. Thus, sampling procedures may enter the selection process at a number of points. This is referred to as multistage cluster sampling. It is important to emphasise that random sampling should be involved in the selection of either the clusters or the block. Although a cluster sampling scheme may not be as efficient as a simple random sampling of the same size, it is usually more economical than simple random sampling.

3. **Cluster/Area Sampling:** This type of sampling allows the units or subjects of the population to exist in their natural state. It is used when population is large and widely spread. These units are in clusters within their habitation or place of abode. Unlike the stratified, where the units are grouped into their various traits of similar characteristics, the clusters in this population are left to be in their natural but different states where the needed samples are collected through random sampling and used for the investigation.

The following steps are taken in order to use this sampling method:

i. identify the population to be sampled.
ii. identify the characteristics that will enhance representativeness.
iii. locate the area where units or subjects with the characteristics cluster and know the representative size.
iv. use random selection to select the needed sample from the cluster (the number of units selected from each cluster must be proportional to the clusters of the total population).

3.2 Non-Probability (non-random) Sampling

1. Quota sampling

This sampling method, although involves non-randomisation, takes on a feature of the stratified random sampling and it makes use of larger population as the cluster sampling. It is used to distinguish the characteristics that need to be investigated in a study. It enables the researcher to have a good representation of the sampling units. Unlike the methods used in stratified and cluster distributions and sampling selection, the determination of sample estimation is based on the researcher's opinion. It is used in eliciting the people's opinions, that is, survey type of research.

2. Judgment sampling

This sampling type makes use of typical cases among the population to be studied, which the researcher considers will provide him with the data needed. The units are selected based on the researcher's opinion of those members that proceed from the sample population which he wants to study.

A knowledgeable researcher, who knows exactly what he desires, does not need to work with too large a sample size, since he already knows the set of samples, which he needs to approach for the attributes he intends to study.

This makes the method less expensive and less time consuming. For instance, in a study carried out in Eti-Osa Local Government Area of Lagos State in Nigeria, to elicit the opinion of people about unrest in the Arab nation, the researcher will not go to those living in high-class estates but to those living in medium and low class estates that happen to be the main discussions of the issue to select his samples. That is where he will get the right set of people to give him the required information. He does not need too many sample sizes.

3. Accidental/convenience sampling

The peculiar characteristics of this method are that the units in the sample are not previously thought about, they are run into unexpectedly and the opinion needed is generated. This makes the method accidental. Also it is convenient since it does not involve previous arrangement of any material. All it requires is for the researcher to be present when the information is to be collected. Thus, it is cheap and simple to use.

For instance, suppose a researcher wishes to seek the opinion of members of the public on the recent killing of Osama Bin Lading by America government. Here there are no specific targets; every member of the public (whether he is working or not) is affected. Thus any person, whom he runs into, will be used as his sample for data collection. Easy as it appears, it gives an unreliable result. It is used where the researcher is operating with little or no budget or a case where he is interested in having a small idea of the situation of interest. This method is widely used by media men or pressmen.

Panel Sampling

This being more of a procedure than sampling in the sense that the units of the sample are permanent since they are repeatedly used for successive interviews. The units, involve are subjected to a non-

probability mode of sampling by the researcher. He selects those individual's, who are interested in cooperating with the norms of the panel. This method of sampling is guided and as such the data collected are limited to certain opinion.

4.0 CONCLUSION

Non probability samplings are those schemes of sampling that do not involve elements of randomisation. The researcher selects those sampling units or person that in his opinion serves most effectively as representative value for the population under investigation. Every member of the population does not have an equal chance of being selected into the sample, the researcher repeatedly obtains the same sample since in his judgment that sample is the representative sample for the population under investigation.

5.0 SUMMARY

This unit discussed mainly sampling techniques, efforts was made to categorise the sampling methods into two i.e. probability and non probability sampling methods. Examples of these categories were also given.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is probability sampling? Enumerate its various methods.
2. List two methods of taking samples from population.
3. Give three examples of non-probability sampling.

7.0 REFERENCES/FURTHER READING

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UNIT 3 USE OF INFORMATION TECHNOLOGY FOR RESEARCH PURPOSES

CONTENTS

1.0 INTRODUCTION

Nowadays, Information and Computer Technologies have become veritable instruments in the conduct of researches. For whatever research is being conducted the researcher will find interaction with the computer and the internet very useful instruments. This interaction or relationship could be structured in many ways depending on the degree or depth at which the researcher wants the relationship or involvement with computer and the internet to be.

Although the computer and the internet are very useful research tools and their use is free for all in most cases, without proper clear understanding of the components and their uses, there is no way by which the researcher can have access to the process or procedure of information loading and retrieval from the internet. Getting high quality web materials could also be very tasking compared to getting information from printed school books and journals. In this unit we shall bring the usefulness of information technology for research purposes to focus.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- expatiate on the components of information technology
- relate types of research resources available on the internet
- state the use of IT as Research Resources
- explain various methods of finding information on the internet.

3.0 MAIN CONTENT

3.1 The Components of Information Technology

The use of computers and the internet for research purposes involves understanding a complex of terms, techniques and knowledge for solving problems involving information and its communication. It is the utilisation of electronic means for storing, processing and communicating information.

Two vital components of Information Technologies are: (a) the computer, and (b) different types of telecommunications networks, among which are telephone networks, Local Areas Networks of Computers (LAN), and the Internet which is itself actually a network of different connected LAN and individual computers.

The Computer

The computer is designed as a general – purpose equipment which can be used for different information collection, conversion, analysis and transfer applications depending on the software that is used with it. In the midst of current developments, the computer has had a central role. The Computer is getting to control almost all aspects of our life and work. It is making old methods of work rapidly obsolete. The Computer is impacting on the way and manner information is being passed and helping to facilitate effective communication.

The Internet

The Internet is simply a computer – based global information system, composed of interconnected networks of computers. It has brought information right to the doorstep of both the rich and the poor. It is cheap to use and deploy within an organisation (Microsoft, 2003).'
You probably have heard about or used electronic mail (e-mail) before. E-mail, and related facilities and services on the Internet, such as teleconferencing, telecommunicating, and internet browsing or surfing, are all made possible between offices, organisations, regions and

countries through the networking of computer by various types of telecommunications media and equipment, including ordinary telephone lines, fibre – optic cables, satellites, microwave channels, telephone switch boards, modems, etc. such networking of computers by communications media and equipment is referred to as Internet if the network spans the whole world; as wide area network (WAN)if it spans an area greater than about 5 kilometres: as intranet if it connects only the computers of the same organisation irrespective of location; as extranet if it links an organisation's computers to those of its clients; and so on.
The Internet is thus millions of computers interconnected by the computer and telecommunications net- works of the different countries of the world. Some of these computers are actively connected to telephone lines twenty-hours every day waiting to attend to other computers, or send, receive, store or forward messages, computer files and other instructions between themselves on behalf of their users.

The messages, files and instructions are transferred between the computers in the form of electronic signals through the inter- connecting telecommunications network. The signals are exchanged between the computers much in the same fashion as people exchange telephone calls among themselves.

Computers on the Internet are classified into two main types: servers and clients.

Servers are computers that have extensive data processing, storage and communication capabilities, and that can receive and send signals to many other computers simultaneously, and are usually on twenty–four hours a day and seven days each week. Servers are usually perpetually actively connected to one another waiting to receive or send messages data among themselves. Other computers that lack these capabilities are referred to as clients, and often must connect to nearby servers (usually on web by Internet Service Provider (ISP) organisations) in order to connect to other servers and client computers on the Internet.

SELF-ASSESSMENT EXERCISE 1

Expatiate upon the Components of Information technology.

3.2 Types of Research Resources Available on the Internet

Let us begin by considering the following two propositions:

i. Research basically involves collecting and processing data, and exchanging and using information to improve knowledge

ii. Computers, and more generally, information are designed for processing data, for exchanging information, and for using information to improve knowledge.

The implication of these two propositions is that the Computer and Internet are ideal tools for research, and researchers in all fields are expected to arm themselves with the knowledge and skills of how to use them to boost their research productivity. It is also important to reiterate here that the process of research comprises the following four major stages of activities: (i) Conceptualisation (ii) Design (iii) Data collection and analysis; and (iv) Reporting of findings.

The computer and internet provide appropriate tools for facilitating each of these stages. Our discussion of the use of these tools in conducting research will also be organised around these stages of research activities.

3.2.1 Conceptualising and Designing Research

The process of conceptualising and designing research requires the combination and application of ideas through communication with different information sources – people, institutions and documents.

The computer and internet facilitate such processes by providing fast modes of communication with people individually and in institutions. Moreover, an increasing proportion of the documents that must be consulted during research are now available in networked computer systems or in computer media such as CD-ROM.

First, communicating with people and institutions might entail using telephone networks to establish contact with other researchers, to establish an active network of field workers during a survey, and / to actually collect data from people (e.g. telephone interviews), etc.

Second, gaining access to information might entail connecting to the Internet to send and receive e – mail, to browse web sites for information, or download documents for research, or specialised software that can be used for analysing peculiar research data.

3.2.2 E-mail

Apart from personal use of e-mail by people to exchange messages, the e-mailing mode of communication has found important applications in the following contexts:

- Fast and cheap information service. E-mail is the next fastest means of communication, after fax. However, e- mail is much

cheaper than fax. Moreover, fax communication requires that both fax machines must be active simultaneously for a message to be sent and received. For e-mail communication however, the message might be sent from the originating to an intermediating computer on the Internet. The intermediating computer may then store the message pending forwarding when the intended recipient computer connects to the Internet.

- Document delivery and data exchange: An important e-mail facility is the ability to send any computer created document or file as an attachment to an e-mail message. Hence, large documents containing formatted text, numeric data and images (e.g. logos, photographs, signatures, etc) can be sent by e-mail, much faster than post or courier, and much cheaper than fax.

- Bulletin boards: Bulletin boards are computers on which electronic notices may be 'pasted' by other computers by e-mail. Researchers can then use other computers to 'visit' and 'browse' the notices and information periodically. Alternatively such notices may be automatically distributed also by e-mail by the bulletin board to the list of subscribed computers on the Internet.

- Listserv: This entails using computer networks to compile and send important notices to subscribers through what is known as a list service or listserv. Researchers can subscribe to different list services pertaining to their areas of research focus, and thereby remain constantly informed of research developments, such as research grants, findings, conferences and meetings, etc.

- Computer conferencing: This represents an application of e- mail for the purposes of sending and receiving contributions to a topic. The contributions are sent to a designated 'moderator' computer, which collates and summarises all contributions, and distributes them to all computers participating in the conference. Such computer conferences often last for a specific period, say three months.

- Distance education: In traditional distance education, students and their teachers interact through long distance communication by post. However, in situations where both teachers and students have access to computers, e- mail may be used to communicate instruction, messages, study materials, complete assignments, question and answers, etc., between teachers and students.

SELF-ASSESSMENT EXERCISE 2

Expatiate upon the various contexts in which e-mailing have found important applications as means of communication.

3.2.3 Internet Browsing

We have already mentioned visiting and browsing bulletin boards for information pasted thereon. The Internet browsing facility has also found important applications in the following contexts:

Remote Logging, and File Transfer Protocol (FTP): Remote logging refers to the Internet facility whereby a person can use a computer to access and work on another (remote) computer. Working on the remote computer means using any of the software and files on the remote computer much in the same manner as local users of the remote computer are able. Hence, a word processor on the remote computer may be used to edit a report, or a statistical package used to compute data. Files on the remote computer may also be browsed. This facility can be very useful for field workers, or those who may want to work from home (telecommuters), provided they can have Internet access to the server computers to their employers. Also, through remote logging and a procedure called file transfer protocol (FTP), a person may use a computer to copy (download) data files and software from such a remote computer.

World Wide Web (WWW): These represent the most exciting application of the Internet browsing facility. Researchers can use the facility to visit various WWW pieces of information, data files and / or software.

One might even register for additional information and other services by completing form online! The exciting aspect of WWW sites is that they provide both multimedia and hypermedia features. That is such sites often provide not only textual information, but also images and sound clips along with the text thereby enhancing the visitor's understanding and appreciation of the provided information (multimedia), and usually permit a visitor to browse parts of document in any of several different sequences as desired (hypermedia).

Online Searching: This is another application of Internet's remote logging and browsing facilities, which even predates the WWW. The facilities permits information searchers to log on to, search, browse, copy or print data in different types of databases – bibliographic, numeric, full-text, and multimedia, either for a fee or free. Each such database may contain hundreds of thousands or more records on books,

journals, people, organisations or objects. Access often must be pre-arranged with the database creating or hosting organisation.

SELF–ASSESSMENT EXERCISE 3

Expatiate upon the various contexts in which Internet Browsing has found important applications as means of communication.

3.3 Other Uses of IT as Research Resources

3.3.1 Research Reporting and Word Processing

Research reporting entails communicating research findings to different audiences through different channels. Among the channels are print, and increasingly, electronic publications and research meetings such as conferences. ICTs provide tools and systems to facilitating these processes. Among the tools and systems are word processing, graphics and image processing software.

Word Processing refers to the task of using the computer to edit a text document. Rapidly disappearing are the days when researchers needed secretaries to type or word process.

The researcher is also, to put it mildly, expected to be a typist, and able to use word processors to compose research reports for dissemination or for publication in print or electronic sources.

3.3.2 Graphics, Images Processing, Presentation and Design Software

The processing of research reports often also entails having to draw diagrams and graphs, or to manipulate photographic images. ICT now provides different software that can be used to draw such images, more easily or to resize and rotate them, among other possibilities.

Presentation of Software: Research findings often also need to be presented at conferences, seminars and other meetings, where facilities are made available for the projection of research reports from a computer unto a screen, or the preparation of computerised slides with presentation software such as Microsoft Power Point and Corel Drawing.

Electronic Publishing: This is the process of bringing information content into the public domain through publicly accessible computer systems and media. E- publishing is similar to conventional print publishing except that the published content is not printed on paper for

distribution, but made available over the Internet, or through CD-ROMs or diskettes. Amongst e-publishing products are e-books and e-journals.

Institutional and Personal Websites: The growth or electronic publishing is a consequence of the rapid developments in computing systems and media, and the growth of the Internet. Increasing availability and popularity of Internet technologies have created great opportunities for researchers to publicise their research electronically through institutional personal websites.

3.4 ITs for Research in Developing Countries

In developed countries, and indeed some developing countries, Internet facilities have found extensive uses in library services, commercial information services, education/research, and business generally. Internet facilities are used in libraries for inter-library information requesting (e-mail), document delivery (through bulletin boards and lists), and database searching (online of remote databases). However, publicly funded libraries are often unable to provide these services effectively due to inadequate funding. Hence, many of the services are now being provided by commercial firms. In education/research, Internet facilities have been used in mediating long-distance computer conferences, discussion and working groups, as well as long distance education.

3.5 Demerits of Internet as a Research Tool

A number of issues can be encountered in our various attempts at using the Internet for data collection. List of such issues include those associated with technical snags arising from power failures, data clearing requirements, and low response rate to questionnaires. Sometimes, the experience may be so frustrating as to make manual data collection through paper-and-pencil research packets appears more attractive.

In terms of questionnaires, computer skills and familiarity with the input devices affect a respondent's ability to complete an electronic survey. This is in addition to problems of with some respondents who may not be comfortable with using computer for filling out questionnaires.

Anonymity and confidentiality are always concerns in data collection. The identity of the remote computers makes Internet-based proposals more complicated (Berry, 2004). Other issues, such as data security during transmission, are unique to Internet-based data collection.

Data are most susceptible to hacking, corruption and protected pdf formats etc., the corruption of data may be transferred from the data source computers to the researchers' computer.

Electricity supply and power outages may pose problems sometimes resulting in loss of documents and folders. With desktop computers without uninterrupted power supply (UPS), the data entered till power-failure would have been lost and data collection would have to discontinue until power gets restored. Even with laptops this could have resulted in major inconvenience had the batteries not been charged or had the server been located in the building where the power supply was disrupted.

Furthermore, it may be rather unfortunate that computers may contact a virus resulting in loss of data collected. The virus may come from another computer using the same server and infect the entire network involved.

Another technology issue relates to the hardware devices. Data may require navigating the Website using a touchpad. This may result in delays and some confusion because the researcher is more used to a mouse, rather than a touchpad. Similarly, the type of keyboard can also make a difference.

Data collection over the Internet has many potential problems which can arise during any phase of the research. With careful planning, many issues can be avoided altogether.

However, the inclusion of electronic data collection may not only be unnecessary but also impractical for some projects. It can add unnecessary costs, time commitments, and headaches when used for smaller samples that are easily available. Conducting Internet-based research remains a decision that the researcher must weigh carefully.

4.0 CONCLUSION

The computer is general purpose equipment which can render various types of services in the conduct of researches. Computer is rapidly making old methods of work out-dated and obsolete.

Series of facilities and services relating to research are made possible on the Internet through email, browsing, downloading, private and group websites. Graphics, images processing, multilingual type-setting and scripting are all research facilities that can be provided by the computer. The internet can also provide e-library facilities.

5.0 SUMMARY

This unit presents use of Information technology for research purposes. It identifies and expatiates the Computer and the Internet as the two major components of the technology. It highlights the uses to which researcher can put the computer and the types of research resources he can find on the internet.

6.0 TUTOR-MARKED ASSIGNMENT

1. Expatiate upon the various context in which e-mailing has found important applications as means of communication.
2. What is meant by Information technology in this context? Expatiate upon its two components.
3. Apart from e-mailing and internet browsing, enumerate other uses of IT as research resources.

7.0 REFERENCES/FURTHER READING

Jacob, A. B. & William, J. S. (2006). *Internet-Based Data Collection; Journal of Research Practice*: Volume 2, Issue 2. Retrieved November, 2013.

Olayinka, A. I. *et al.* (2006). *Methodology of Basic and Applied Research.* Ibadan: Dabfol Printers.

UNIT 4 REFERENCING

CONTENTS

1.0 INTRODUCTION

Giving sources of your data and information are very vital and a necessity. Perhaps it would help if you are reminded why it is so. We acknowledge ideas, facts or any data at all from others because: citation of previous works:

- acknowledges the importance of those investigations
- provides the reader much more background information than practicable to be included in a single thesis
- serves as evidence of knowledge of existing materials on the subject of current investigation
- can give authority to our works
- can promote further researches
- it would be dishonest not to and the researcher may be accused of plagiarism.

In this unit, you would be acquainted with some common abbreviations used in citation and referencing.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- highlight some classical abbreviations used in referencing
- relate the Modern Language Association style of citing references

- analyse referencing and citation according to the Chicago Manual of Style
- discuss the American Psychological Association principles of documenting different research sources.

3.0 MAIN CONTENT

There are three main styles of giving sources of data and referencing apart from the common classical abbreviations and use of foot notes, end-notes, in-text and listing works-cited, references and providing bibliography. Below, we give a description of:

The American Psychological Association [APA] style, the Modern Language Association [MLA] style; the Chicago Manual Referencing Style and the Common Classical Abbreviations.

3.1 Application of the American Psychological Association (APA) Style

The American Psychological Association (APA) Style established in 1929 has become one of the outstanding citation methods used in the Arts and Humanities. Their use is inclusive of research in the fields of Arabic and Islamic studies. The APA style follows the parenthetical format as can be found in the guidelines provided in the manual of the association.

In citing authors in APA format, the author's name separated by a comma and year of publication is usually written beside the cited sentence. If citation is verbatim, the page number is included after the year.

Examples of:

Book by One Author
Sherif, M. M. (1963). *A History of Muslim Philosophy*, Lahore, Pakistan.
Doi, A.R.I. (1990). *The Islamic Law.* London. Taha Publishers.

Chapter in Book or Book Article
Adetona, L. M. (1998). "Ilmiyyah Schools in post-Independence Lagos." Ishaq
Akintola *et al.* (Eds). *Correlates of Islam:* a publication in honour of Prof. Y.A. Quadri.

Article in a Journal
Ahmed, A.F. (1995). "Mystical Philosophy in the Arabic Poetry of Muhammad Gibrima of Nguru 1902-1975." *Research Bulletin*, Vol. 20.

Article in a Magazine
Ahmed, A. F. (2000). Min a'lām al-Islām fī Nījīriyā; Al-Fayşal Magazine (Saudi Arabia) No. 280 pp.73 – 80.

Article from Newspaper: no author given
New drug appears to sharply cut risk of death from heart failure (1993. July 15). The Washington Post. p. A12.

Encyclopaedia Article (p.24)
If no author is given, begin the reference with the entry title and publication date:

Bergmann. P. G. (1993). Relativity in The New Encyclopaedia Britannica (Vol. 26. pp. 501- 508). Chicago Encyclopaedia Britannica).

Court Cases (p. 399)
Lessard v. Schmidt. 349 F. Supp. 1078 (E.D. Wis.1972).

Online Journal Article
Adesina-Uthman, G. A. (2010). "Malaysian Sukuk Trading and Information System: An Overview", SSRN Working Paper Series in Emerging Market-Finance e-Journal, 2010, pp. 1-8.
http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1044680

Newspaper or Magazine Article on the Internet
Abbas, Femi (March, 2013). "……". The Nation **Newspaper** Retrieved, February 3, 2013from http://www.charlesogbulogo.com/articles/downloads.html.

Book on CD
Ahmed, A. F. (2010). Exegesis of the Qur'ān [CD]. Lagos: NOUN.

All the cited materials are always put at the end of the research work as references or bibliography. In this regard, the authors last or surname followed by the year of publication is used.

When two authors are cited within closed parenthesis, the ampersand sign (&) is used to separate them but if not enclosed within a parenthesis, the word 'and' is used. However, when there are three to five authors, the first reference to their work has all their names while

subsequent references to the same material has only the first name and *et al*.

When there are more than one publication by the same author in the same year, the author's name and year of publication appears followed by alphabets depicting the number of publications [e.g. Hunwick, 2009a, 2009b, 2009c].

When direct quotes are taken from a material, the author's name, year of publication and page number are cited.

SELF-ASSESSMENT EXERCISE 1

Discuss the application of the American Psychological Association (APA) style of documenting project data.

3.2 Use of Modern Language Association Style

The Modern Language Association (MLA) style is commonly used in literary studies – including comparative literature and literary criticism, even in foreign languages including Arabic, cultural studies and Islamic Studies.

The style uses the parenthetical referencing i.e. brackets with the authors – page format – e.g. (Abdul 1982), or author – (short) title – page – e.g. (Abdul, The Caliphate, 60), especially where there are more than one source from the same author.

In this MLA style, researchers are expected to document the cited sources as Bibliography or the Works - Cited list at the end of the material. The researcher is expected to supply the author's last name and page number. He is also expected to place the citation immediately after the work being cited. Also, on-line materials are cited just like printed sources.

IN TEXT CITATIONS

S/no	Author	Citation
1	Author's name in text	According to Abdul (10 - 11)
2	Author's name in two locations	Abdul noted (15, 34 - 35)
3	Two or more authors	Doi and Abdul (14)
4	Corporate author	University of Ibadan (10)

5	Two or more works by the same Author	Doi considers.. (Shariah, 9) Doi states… (Islam, 3)
6	The Qur'ān text and translation	Bismillah ar_Rahman ar-Rahim Wa `l- 'asr, Inna `l-Insana lafi khusr, illalladina amanu waamilu `s-Salihat, watawaasaw bi `l-haqq, watawasaw bi `s-sabr. Meaning: By the Time! Certainly man is at a loss. Except those who believe, and are righteous, and counsel on truth, and counsel on patience.
7	A work with more than three Authors	(Quadri et al. 22)

MLA Reference Citation

1. Book

Sherif, M. Mustafa, A History of Muslim Philosophy, Lahore, Pakistan, 1963. pp.12-13 Doi, A.R.I., The Islamic Law, London Taha Publishers, 1990 p. 79

2. Journal Article

Ahmed, Asif. "The Dominance of Qādiriyyah in the Sokoto Caliphate", Journal of Arabic and Religious Studies, Unilorin, Vol. 9, (1992), pp. 1-12.

3. Newspaper or Magazine Article

Abbas, Femi. "A Voice from Harvard" The Nation Newspaper, 14 Oct. 2011: p. 36.

4. Chapter in Book or Book Article

Ahmed, A. F., "The Influence of the West on Modern Arabic Drama" Book in honour of Professor Wole Soyinka. at 70, ed. Professor Adelugba, Department of Theatre Arts, University of Ibadan) (2004), pp.

5. Encyclopedia Article

Ahmed, A. F., "Shī'ah." in Encyclopaedia of the Arts (ed.) Adeleke Fakoya, Lagos State University. (2006).

6. Website Information

For full text journal article from an internet.

Adesina-Uthman G. A. (**2010**), "Malaysian Sukuk Trading and Information System: An Overview", SSRN Working Paper Series in Emerging Market-Finance e-Journal, retrieved January 28, 2013, pp. 1-8. http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1044680

For world wide web pages (www.pg): with no author.
Educating America for the 21st Century: Developing a Strategic Plan for Educating Leadership for Columbia University. 1993 – 2000. (Initial workshop draft), (1994). Retrieved May 16, 1995 from http://www/ilt.columbia.edu/CONF/EdPlan.html .

Though the same format is applicable for www- single author, joint author or institutional publication with or without publication date, the retrieved date is of paramount importance here.

7. Newspaper or Magazine Article on the Internet
Oladosu, Afis A., "Who is Prophet Muhammad?" The Guardian, Jan. 25, 2013:p. 36. 29 Jan. 2013 www.ngguardiannews.com

SELF–ASSESSMENT EXERCISE 2

Explain the use of MLA format in documenting research sources of information.

3.3 The CMS Format

Book

Author's full name, first name first
Complete title of the book (italics)
Editor, translator, or compiler, if any
Series name, if any and volume number in the series
Edition, if not the original
Number of volumes
Facts of publication – city (and sometimes state or province if the city is not a major one) where published, publisher (sometimes omitted, especially in very old books) date of publication
Volume no of citation, if any (in Arabic numerals)
Page number(s) of the particular citation (if reference is an essay in an edited book).

Example:

Ismail A. B. Balogun, The Life and Works of Uthman Dan Fodio, Lagos, Islamic Publication Bureau, Lagos, Nigeria, 1975

Murray Last, The Sokoto Caliphate, London, Longman Group Limited, 1977

Article in a periodical

Author's full name
Title of the article (in double quotation marks)
Name of the periodical (italics)
Volume (and number, if there is one) of the periodical (Arabic numerals)
Date of the volume or the issue or of the issue (in parentheses)
Page number(s) of the particular citation.

Example:

Abdullah bn Fudi, Īdā'u a'n-Nusūkh man akhadhtu anhum min ash-Shuyūkh trans. M. Hisket. Bulletin of the School of Oriental and African Studies, vol…..

3.4 The Classical Referencing Abbreviations

In this section, we shall highlight the classical abbreviations commonly used in referencing methods when writing researches in different disciplines. These Classical methods comprise Latin terminologies and they, among others, include the following:

1. Ibidem – abbreviated: ibid – as before/ditto

This is used when a writer wants to cite the same work. In fact, it literary means in the same place or in the same work or what has been previously mentioned. e.g.

Haykal, M. H. (1972). The Life of Muhammad. Lagos: Islamic Publication Bureau. p.19 2. Ibid. p. 10 The above example simply means that the author is making the same reference he has made in number 1, in number 2.

2. Opere Citato – abbreviated: op. cit.

This is used when the researcher or students cites the same author of material in different pages. When op. cit. is used, the reader turns to the footnote, endnote or references to find the cited material. e.g.:

a) 5. Galwash, A. A. (1963). The Religion of Islam, Cairo, Egypt, p. 5.
b) 15. Galwash, A. A. op. cit., p. 5.

The above example simply means that the same material referred to in 5 was also referred to in 15.

3. Loco Citato – abbreviated: Loc. Cit.

Loco Citato or loc .Cit. is used when the same material which follows sequentially have been referred to during the course of the work i.e. when the citation is made from the same source and page number, loc. cit. is used. Hence, loco citato means in the same place. e.g.

a) 1. Hamidullah M. (1979). Introduction to Islam, London MWL Publishers p.19
b) 2. Loc. cit.

The above example simply means that the loc. cit. in reference 2 refers to everything in reference 7.

N.B. As much as possible, the use of the terms 'Ibidem'. ''Op. cit.'' ''Loc. Cit.'' and ''Ibid'' are to be avoided in textual referencing: the term '' et al.'' should be used where reference is to be made a second time to a material co-authored by more than two scholars whose names must have been fully quoted previously in the thesis. Meanwhile, the application of this method is discipline specific. It is allowed in Islamic Studies among others.

Other Abbreviations Commonly Used in Referencing

No	Word	Abbreviation
1	No Publisher	n.p.
2	No Pagination	n. pag.
3	Edited by, Edition or Editor	ed. or ed.
4	Months	Jan, Feb, Mar, Apr, Aug, Sept, Oct, Nov, Dec Note: May, June and July are not abbreviated
5	No date	n. d.

Use standard Latin abbreviations only in parenthetical material. In non-parenthetical material, use the English translation of the Latin terms.

Cf	compare
e.g.	for example
etc	and so forth
i.e.	that is
viz	namely
vs	versus; against

SELF-ASSESSMENT EXERCISE 3

Explain and illustrate when to use ibidem, op. cit., loc. cit. and other abbreviations commonly used in citation research data.

3.5 Some other Basic Information on Citation within the Text

1. When two authors of a cited work are named in the text (APA Style). Type are joined with the use of '' and'' followed by the date of publication. e.g. Bivar and Hiskett (1978): however when the names appear inside parenthesis. Use the amperes and '' &'' to join them, including the year of publication. e.g. (Edet & Killam, 2001).

2. Materials of other scholars could be made reference to by the use of direct quotation, by paraphrasing, or by summation of the cogent and relevant points within the text.

3. Where a direct quotation is longer than three or four lines of a project page, candidates are advised to employ the indented quote format in which the material is set off from the preceding text and formatted single space with inverted commas at the beginning and the end. Here, the quotation page(s) are also provided after the quotation mark has been finally inserted.

4. When a part or parts of a quotation are left out, this should be indicated with the use of the ellipsis, i.e three symbolic periods (…)

5. Footnotes or Endnotes (MLA & CMS) are used to include other information which may be contextually relevant but digressional to the discourse. Footnotes or endnotes are marked in each chapter of the thesis with the use of superscripts numbered consecutively starting from 1; the superscript is a raised or superior Arabic numeral or symbol (123 etc). Thereafter, the full citation of notes comes at the end of respective chapters (in the case of 'Endnotes'). Please note that Endnotes are preferred in research papers and presentations.

6. All references made to books, journals, and other printed and electronic matters should be listed at the end of the project under the heading REFERENCES or WORKS CITED or BIBLIOGRAPHY.

7. All references should be listed alphabetically, according to the surnames of the authors of the works being cited.

8. References by the same author should be listed chronologically, according to the year of publication (APA), or alphabetically, according to the first letters main words in the titles being cited (MLA & CMS).

9. Where works are published in a single year by the same author(s), such references should be listed numerically, with suffixes a, b, c. etc after the year of publication (APA).

10. A work with multiple authorship should be cited with the surname of the first author with forename) first, followed by the names of the co- authors in forename-surname order.

11. In organising the list of references, attention should be paid to the paragraphing style: the first line of a citation, starting with the name of author(s), is usually fully justified whereas the second and succeeding lines are indented with one tab spacing to the right of the page.

12. Generally, a bibliographic entry has three main divisions, each followed by a period author's name reversed for alphabetizing, the title of material, and the publication data (MLA & CMS); in the case of APA, the author's name is followed by year of publication.

13. In citing Endnotes, documentation has four main parts: author's name in normal order, followed by a comma, the title; the publication data in parentheses; and a page reference. There is a period only at the end.

4.0 CONCLUSION

The foregoing Style Sheets are usually prescribed by academic bodies, for use in different departments/ faculties and units, and for specific disciplines. Consistency is required in whichever style of citation is recommended for any given research project.

An appropriate use of a style sheet goes a long way to show how scrupulous and disciplined a researcher is.

Referencing is usually inserted at two or three points in a presentation: as quotation in the body (chapters or main divisions) of the project; as

footnotes or endnotes marked by the use of superscripts in the body or at the end of each chapter of the project (wherever applicable).

A bibliography or full citation where all materials consulted are organised and listed should also be provided at the end of the project/thesis.

5.0 SUMMARY

In this unit, you have learnt the following:

- the Classical Abbreviations used in research data documentations
- the use of Modern Language Association style of documenting references and citation
- referencing, citation and giving sources of data according to Chicago manual of style
- and the essentials of American Psychological Association styles of documenting sources of data which are very prominent in Arts and Humanities disciplines including Islamic studies.

6.0 TUTOR-MARKED ASSIGNMENT

1. Enumerate the classical abbreviations in common use in projects and write- ups. Elucidate where necessary.
2. Provide the essential ingredients of the Modern Language Association (MLA) style of documenting data collected for projects.
3. Illustrate the application of the APA style using five different research sources

7.0 REFERENCES/FURTHER READING

Gibaldi, J. & Achtert, W. S. (1988). MLA Handbook for Writers of Research Papers. New York: The Modern Language Association of America.

"How to write Research papers with citations – MLA, APA, Footnotes, Endnotes" http://www.studenthandouts.com/citations .htm. Retrieved 2010.

Olayinka, A. I. *et al*. (2006). Methodology of Basic and Applied Research. Ibadan: Dabfol Printers.

Ogbulogo, C. *et al.* (2010). ENG 311: Research Methods. Abuja: NOUN.

APA style web http://www.apastyle.org/.