



NATIONAL OPEN UNIVERSITY OF NIGERIA

INTRODUCTION

Here is your tool box for putting in practice all you have learnt as a criminologist. Welcome to your gateway to entrepreneurship in criminology. Research Methods in Criminology CSS 831 is a semester of 3 credits unit course that introduces students to the nature procedure and report writing in conducting research in criminology. It is structured to equip post graduate students of the National Open University of Nigeria with the knowledge and expertise to conduct research in the field of criminology.

Any society wishing to make steady progress in all facets of development must take Research and Development seriously. It is through research that we are able to acquire knowledge of the past, make meaning of the present and predict and control the future. It is through research that we establish;

- Baseline indicating where we are presently as a result of decisions and interventions made in the past and
- Strategies required to positively progress beyond the baseline
- Determine the exact material and human resources required to make measured progress and
- Monitor and evaluate progress made.

This is particularly a truism in the study area of criminology where research outputs that are logical, original and contain recommendations with policy implications are absolutely necessary to make criminology relevant to society. Students therefore, need to first acquire the discipline, integrity and objectivity required in doing research. This course does not accommodate attitudes which

encourage cutting corners, searching for the obvious, predicting outcomes and working towards them and manufacturing of data which do not reflect reality.

Aims

The aims of this course are to;

- Project the relevance of research to learning and practice in criminology
 - Guide the students through the proper conceptualization of research topics.
 - Project knowledge and capacity for clearly stating research problems a crucial pointer towards the structure of the objectives which inform the study questions and hypotheses.
 - Build capacity in students for affective review of literature taking cognizance of the research problem and selection of relevant theories.
 - Demonstrate how logic is infused into research through methodology
 - Outline the methods of data analysis suitable to data collected
 - Provide the appropriate approaches to summary of a study, discussion of the findings and concluding research
 - Show the various methods of referencing and how to be consistent in the exercise.
- And most important,
- Provide a format for (Project Thesis or Dissertation) writing at the National Open University Nigeria.

OBJECTIVES: TO;

- i. Introduce students to sociological imagination necessary for identifying social problems particularly in the area of criminology
- ii. Guide students on how to review literature identify a gap and select a topic for research
- iii. Expose students to the different methods used in stating the problem in research
- iv. Guide students in converting objectives of the study to study questions and eventually study hypotheses.
- v. Provide a format for choosing research methods from an understanding of the building blocks of research.

- vi. Provide appropriate knowledge on the various methods of data collection and corresponding analysis of data technique
- vii. Expose students to the specifics of the identification and discussion of findings
- viii. Guide students practically on how to summarize research, draw a conclusion and generate recommendations that have policy implications.
- ix. Make available and guide students in the use of various referencing methods.

WORKING THROUGH THIS WORK

To complete this course, students are required to develop a sense of objectivity and avoid indulging in self-fulfilling prophecies. Furthermore, many aspects of the course require practical demonstration which the students can practice independently to gain knowledge. These assume the forms of Self-Assessment Exercise (SAE) and Tutor Marked Assignments. There shall be a written examination at the end of the course. The normal 14 weeks period should be used for learning. Time for each component of the course should be spread evenly to ensure adequate coverage and understanding.

COURSE MATERIALS

The following materials are required for a successful completion of this course

- i. The course guides.
- ii. Study units (24)
- iii. Text books recommended at the end of each unit
- iv. Publications of professional bodies recommended
- v. Tables i.e. Random tables recommended
- vi. Assignment files for all assessments
- vii. Presentation schedule

At the end of each unit students are expected to do the exercise designed to assess the extent to which they comprehend the knowledge required. There are also Tutor Marked Assignments (TMAs) which in conjunction with exercises help students achieve the stated learning objectives of the units and the course.

STUDY UNITS

There are twenty-four study units in this course. They are as follows;

MODULE 1 CRIMINALITY AND SCIENCE

- Unit 1 The Aim of Criminology
- Unit 2 Variables Topics and Introduction
- Unit 3 Objectives and Hypotheses
- Unit 4 Introduction and Review of Literature

MODULE 2 STUDY DESIGN

- Unit 1 Understanding Study Design
- Unit 2 Mixed Method Design
- Unit 3 Ethics in Research
- Unit 4 Study Locale and Problems Encountered

MODULE 3 SAMPLING AND DATA COLLECTION

- Unit 1 Sample
- Unit 2 Sampling Probability
- Unit 3 Non-Probability Sampling
- Unit 4 Sample Size Determinants

MODULE 4 DATA FOR RESEARCH

- Unit 1 Population and Sample
- Unit 2 Interview Method
- Unit 3 Observation
- Unit 4 FGD, Validity and Reliability

MODULE 5 THEORIES IN CRIMINOLOGY

- Unit 1 Nature of Theory
- Unit 2 Biological and Psychoanalytic Theories
- Unit 3 Functionalism and Marxism

Unit 4 Symbolic Interactionism, Cultural Theories and Modernism

MODULE 6 DATA ANALYSIS

Unit 1 Qualitative Data Analysis

Unit 2 Quantitative Analysis

Unit 3 Concluding Research

Unit 4 Writing for Grants

TEXTBOOK AND REFERENCES

Students are advised to consult the books and references indicated. However, these could be supplemented with other relevant internet materials found particularly in Google scholar. This should enhance their understanding of the study materials.

ASSESSMENT

The course assessment is in two parts. Firstly, there is the Tutor Market Assignments. Secondly, there is a written examination. Knowledge acquired in this course should be used by the student to do their assignments which they shall submit to their tutor in line with the submission deadlines stated in the assignment file. The exercise that you submit as your Tutor Marked Assignment will count for 30% of your total score in this course.

TUTOR MARKED ASSIGNMENTS (TMAs)

In this course, you will be required to study fifteen (24) units and complete tutor marked assignments provided at the end of each unit. The assignments carry 10% mark each. The best four of your assignment will constitute 30% of your mark. At the end of the course, you will be required to write a final examination, which counts for 70% of your final mark.

The assignments for each unit in this course are contained in your assignment file. You may wish to consult other materials apart from your course material to complete your assignments. When you complete each assignment, send it together with a Tutor-Marked Assignment (TMA) form to your Tutor. Ensure that each assignment reaches your tutor on or before the dead line stipulated in the

assignment file. If, for any reason you are unable to complete your assignment in time, contact your tutor before the due date to discuss the possibility of an extension. Note that extensions will not be granted after the due date for submission unless under exceptional circumstances.

FINAL EXAMINATION AND GRADING

The final examination for this course will be for two hours, and count for 70% of your total mark. The examination will consist of questions, which review the information in your course material, exercise, and tutor marked assignments. All aspects of the course will be examined. Use the time between the completion of the last unit, and examination to revise the entire course. You may also find it useful to review your tutor marked assignments before the examination.

COURSE MARKING SCHEME

ASSESSMENT	MARKS
Assignments	Four assignments, best three marks <i>of four count at 20% of course</i>
Final Examination	70% of total course mark
Total	100% of course marks.

ASSIGNMENT FILE

Assignment file consists of all the details of the assignments you are required to submit to your tutor for marking. The marks obtained for these assignments will count towards the final mark you obtain for this course. More information on the assignments can be found in the assignment file.

COURSE OVERVIEW

Unit	Title of Work	Weeks Activity	Assessment (End of Unit)
MODULE 1	CRIMINALITY AND SCIENCE		
Unit 1	The Aim Of Criminology	1	Assessment
Unit 2	Variables Topics And Introduction	1	Assessment
Unit 3	Objectives And Hypotheses	1	Assessment
Unit 4	Introduction And Review Of Literature	1	Assessment
MODULE 2	STUDY DESIGN		
Unit 1	Understanding Study Design	1	Assessment

Unit 2	Mixed Method Design	1	Assessment
Unit 3	Ethics In Research	1	Assessment
Unit 4	Study Locale And Problems Encountered	1	Assessment
MODULE 3	SAMPLING AND DATA COLLECTION		
Unit 1	Sample	1	Assessment
Unit 2	Sampling Probability	1	Assessment
Unit 3	Non-Probability Sampling	1	Assessment
Unit 4	Sample Size Determinants	1	Assessment
MODULE 4	DATA FOR RESEARCH		
Unit 1	Population And Sample	1	Assessment
Unit 2	Interview Method	1	Assessment
Unit 3	Observation	1	Assessment
Unit 4	FGD, Validity And Reliability	1	Assessment
MODULE 5	THEORIES IN CRIMINOLOGY		
Unit 1	Nature Of Theory	1	Assessment
Unit 2	Biological And Psychoanalytic Theories	1	Assessment
Unit 3	Functionalism And Marxism	1	Assessment
Unit 4	Symbolic Interactionism, Cultural Theories And Modernism	1	Assessment
MODULE 6	DATA ANALYSIS		
Unit 1	Qualitative Data Analysis	1	Assessment
Unit 2	Quantitative Analysis	1	Assessment
Unit 3	Concluding Research	1	Assessment
Unit 4	Writing For Grants	1	Assessment

HOW TO GET THE MOST FROM THIS COURSE

In distance learning, your course material replaces the lecturer.

The course material has been designed in such a way that you can study on your own with little or no assistance at all. This allows you to work, and study at your pace, and at a time and place that best suits you. Think of reading your course material in the same way as listening to the lecturer. However, you are advised to study with your course master in the same way a lecturer might give you some reading to do, the study units give you information on what to read, and these form your text materials. You are provided exercise 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 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 are required to know 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 you make this a habit, it will improve- your chances of passing the course significantly.

The main body of the unit guides you through the required reading from other sources. This will usually be either from the reference books or from a reading section. The following is a practical strategy for working through the course. If you run into difficulties, 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 for help or visit the study Centre.

Reading this Course Guide thoroughly is your first assignment.

1. Organize 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 this unit. 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 and write in your own dates and schedule of work for each unit.
2. Once you have created your own study schedule, do everything to be faithfully to it. The major reason 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.
3. Turn to unit 1, and read the introduction and the objectives for the unit.
4. Assemble the study materials, you will need the reference books in the unit you are studying at any point in time.
5. Work through the unit. As you work through the unit, you will know what sources to consult for further information.
6. Before the relevant due dates (about 4 weeks before due dates), access the Assignment File. 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 pass the examination. Submit all assignments not later than the due date.

7. 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.
8. 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.
9. When you have submitted an assignment to your tutor for marking, do not wait for marking 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.
10. 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)

TUTORS AND TUTORIALS

There are 15 hours of tutorials provided to support this course. Tutorials are for problem solving and they are optional. You need to get in touch with your tutor to arrange date and time for tutorials if needed. Your tutor will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you might encounter and provide assistance to you during the course. You must submit your tutor-marked assignments to your tutor well before the due date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible.

Do not hesitate to contact your tutor by telephone, e-mail, or discussion board. The following might be circumstances in which you will find necessary contact your tutor if:

- ❖ You do not understand any part of the study units or the designed readings.
- ❖ You have difficulties with the exercises.
- ❖ You have a question or problem with an assignment, with your tutor's comments on an assignment or with the grading of an assignment.

- ❖ To gain maximum benefits from this course tutorials, prepare a question list before attending them. You will learn quite a lot from participating in the discussions.

SUMMARY

The course guide has introduced you to what to expect in methodology in criminology. It takes you through practical steps in understanding each segment in research and provides you with such knowledge that will enable you do good research, write research proposals and identify your findings that can be patented to generate income for you.

TABLE OF CONTENT	PAGE
MODULE 1	13
UNIT 1 THE AIM OF CRIMINOLOGY.....	14
Unit 2 VARIABLES, TOPICS AND INTRODUCTION.....	23
Unit 3 FORMULATING OBJECTIVES AND HYPOTHESES	30
Unit 4 INTRODUCTION AND REVIEW OF LITERATURE.....	39
MODULE 2 STUDY DESIGN.....	43
Unit 1 UNDERSTANDING STUDY DESIGN.....	43
UNIT 2 QUALITATIVE DESIGNS.....	53
UNIT 3 ETHICS IN RESEARCH.....	64
Unit 4 STUDY LOCALE AND PROBLEMS ENCOUNTERED.....	76
MODULE 3 DATA RESEARCH	72
Unit 1 POPULATION, POPULATION FRAME AND SAMPLE	82
Unit 2 SAMPLING TECHNIQUES.....	87
UNIT 3 NON-PROBABILITY SAMPLING.....	93
UNIT 4 SAMPLE SIZE DETERMINANTS.....	96
MODULE 4 DATA FOR RESEARCH	
UNIT 1 POPULATION AND SAMPLE	100

UNIT 2	INTERVIEW METHOD	107
UNIT 3	OBSERVATION.....	112
UNIT 4	FOCUSED GROUP DISCUSSION, DATA VALIDITY AND RELIABILITY	118
MODULE 5	THEORIES IN CRIMINOLOGY	124
UNIT 1	NATURE OF THEORY	124
UNIT 2	BIOLOGICAL AND PSYCHOANALYTIC THEORIES.....	129
UNIT 3	FUNCTIONALISM AND MARXISM.	135
UNIT 4	SYMBOLIC INTERACTIONISM,CULTURAL THEORIES AND MODERNISM.....	143
MODULE 6	DATA ANALYSIS.....	152
Unit 1	QUALITATIVE DATA MANAGEMENT	153
UNIT 2	QUANTITATIVE DATA ANALYSIS.	168
UNIT 3	CONCLUDING RESEARCH.....	184
Unit 4	WRITING FOR GRANTS.....	194

MODULE 1

UNIT 1 THE AIM OF CRIMINOLOGY.

CONTENTS.

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content Science and Criminology.
 - 3.1. Traditional knowledge
 - 3.2 Authoritative knowledge
 - 3.3 Mystical knowledge
 - 3.4 Intuition
 - 3.5 Science in criminology.
 - 3.6 Probabilistic Explanation
 - 3.7 Deductive Explanation
 - 3.8 Verstehen tradition
 - 3.9 Prediction
 - 3.10 Understanding
- 4.0 Conclusion.
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 Reference

1.0 INTRODUCTION

Criminology adopts a scientific approach to knowledge. However, practitioners in this field of study must be aware of other knowledge seeking behavior patterns which exist in the society. The different forms of knowledge source need to be considered by criminologist if such specific areas of interest as victimology and cultural foundations for crime interpretation have to be explained. This unit introduces you to different sources of knowledge which may facilitate research in criminology.

2.0 OBJECTIVES

The cardinal objective of this unit is to expose students to sources of knowledge particularly as they relate to interpretation and understanding of criminal activities.

3.0 MAIN CONTENT

3.1 SCIENCE IN CRIMINOLOGY

Criminology is a science. It derives knowledge from scientific procedures. It can be clearly differentiated from knowledge based on tradition, intuition, authority of the proponent etc. We shall begin by establishing the scientific nature of inquiry in criminology and proceed to demonstrate its dynamics beginning with the use of variables in selecting topics through the identification of the indicators of the variables to formulate the aim of the study, the study objectives and study hypothesis. By the end of the unit you should understand the scientific foundation of research in criminology. You should know what variables are, types of variables and how they are used to construct research topics. Finally, you will gain knowledge on how the study problem guides the researcher in selecting a befitting research design.

Aim of Criminology

A very simple definition of criminology says it is the study of crime from the perspective of the social sciences.

KNOWLEDGE SEEKING BEHAVIOUR AND CRIMINOLOGY.

3.1 TRADITIONAL KNOWLEDGE:

This consists of the knowledge gained from the cultural heritage of a society. It is described as forms of behavior inherited from generations past. These modes of behaviour are not questioned but adopted because “it is the way of life”. Traditional Authority is still dominant amongst ethnic groups in Nigeria. The legitimacy of these forms of authority stems from the belief system that rationalizes the selection, functions and social statuses of those who exercise it. For the criminologist the recognition of the traditional methods of crime, definition, crime dictation and crime prevention are critical. These aid a balanced analysis of crime in society. We should equally be mindful of traditional knowledge of crime that have become obsolete.

Marriage in most traditional Nigerian societies emphasizes on asking questions about criminal records of the families involved. Thus, people are sent to discretely ask such questions as:

- Has there been a case of madness in the families?

- Has any member of the families been involved in such criminal activities as stealing a sheep or crop in a farm usually regarded as taboo?
- Do women from the families give birth to female children only?
- Has any member of the families committed suicide or murder?

The answers to these questions are supposed to inform the decision on whether the marriage will be contracted or not. If there has been a case of stealing in any family in the past, it will be concluded that the gene responsible for stealing behaviour is in the blood of the members of the family. It is therefore possible that children from any member of this family will also compulsively steal. It is equally assumed that traits that cause people to commit suicide or murder reside in the blood. Marrying from a family where these traits are found is therefore dangerous. Traditional knowledge still influences the interpretation of crime. There are also traditional methods of dictating crime which are currently prevalent. The criminologist should be in a position to distinguish the legality of the offshoots of the traditional reasoning and the context within which they could be considered relevant.

3.2 AUTHORITARIAN KNOWLEDGE

I once provide an article written by a prominent sociologist Prof. Mark Anikpo to level 200 students and told them to review the article as continuing assessment. There was a chorus of “not fair” from the class. Their reasoning was that I was unfair in asking them to review an article written by a Professor. What could they say about knowledge established by a Professor? What could they probably say was wrong with the grammar? They had listened to him on several occasions and turned a huge impression on the scholar. Seeking knowledge from the authoritarian perspective accords to the individuals we rely on the status of “qualified producers of knowledge” “authority in a particular intellectual terrain” an “oracle in sociology” etc. these individuals could be equated to Hegel’s use of the concept “World Historical Figures” who understand the nature, character and the demands of the World Spirit at each historical epoch. They are found in politics, military religion and other area of specialization. At the zenith of Roman Empire, the infallibility of the Pope was a typical reference of knowledge

authority. People rely on such figures of knowledge believing that they are endowed with virtue of producing knowledge. The criminologist is sometimes confronted with authoritative knowledge and is expected to provide sufficient evidence to counter the knowledge. Authoritative knowledge persists in contemporary Nigeria. The law concerning abortion, family planning and same sex marriage for Catholics derive from the teachings of the church as proclaimed by church. When these contradict civil laws how will the criminologist interpret the situations?

3.3 MYSTICAL KNOWLEDGE.

Mystical knowledge is as old as history. In the Greek city states, people interested in leadership consulted Zeus, the god of wisdom. Mystical knowledge can be compartmentalized in Comte's metaphysical stage of development of societies. At this stage abstract reasoning directs attention on recognized supernatural beings and those with powers to consult them as priests, priestesses' mediums diviners or prophets. Ritualistic and ceremonial procedures designed to convince knowledge seekers on the efficacy of knowledge produced form rites or procedures.

Kidnapping has experienced an upward spiral in Rivers States. Some Local Government Areas institutionalized mystical groups, who allegedly charm and call the kidnappers. The kidnappers compulsively surrender themselves. As a result, kidnapping in these LGAs has nose-dived. People who plan important ceremonies such as wedding ceremonies, burials and cultural festivities consult "rain doctors" the knowledge seekers in desperation, fear and emotional instability accept knowledge produced. There is push by philosophers to legitimize "African magic" particularly in crime prevention. The criminologist should be able to critically evaluate this form of knowledge seeking and decide what aspects that are acceptable and why.

3.4 INTUITION.

Some knowledge seekers rely on intuition. Intuition is the voice that speaks to you from within. Sometimes it assumes the form of a haunch that is confirmed after an event. You go to buy a car, the seller shows you a car and you

immediately, express dislike for it. The car dealer inquires: Have you used this car before? Do you know anyone who has used a similar car before? Have you received any negative report on the car? Your answer to all is no, something tells me the car is not good. If eventually you buy the car and every week it breaks down, your reaction will be “I knew it something told me that this car will not function effectively, I would not have bought it if not for the persistence of the seller”. Many people believed in this little voice from within. There are also rituals that believers observe particularly before making any major decision. In criminal investigation instances abound where people claimed to have acted according to the voice from within. Jack the Ripper used this in defence for his murdering about thirteen women in Britain. The problem with this form of knowledge is that it can neither be shared or investigated. It has no scientific foundation and cannot be substantiated beyond the conviction of the original source of the information.

3.5 THE SCIENTIFIC METHOD

Why is the crime rate higher in some cities around the world? Why does crime rate differ between countries? Using specific examples why is the rate of crime higher in Nigeria than Ghana? Can we simply explain by saying that Nigeria is more populated than Ghana? Is this a scientific explanation? Are their countries with bigger populations than Nigeria, yet their crime rates are lower than that of Nigeria? If we cannot use the Nigeria Ghana response to address case between other countries the criminologist will not hold it as valid or reliable. If we can explain crime rates between countries using sizes that would have to be arrived at through a logical process.

The criminologist wants to provide general explanations for “why” questions, through empirical and systematic analysis of observable and measurable indices related to the question. Richard Braithwaite proposed the job of scientists which is applicable to the functions of criminologist. From this proposal we infer that criminologists are to provide general laws which cover the gamut of behaviour as interpreted in different societies relating to crime. From this the criminologist can connect knowledge of separately known criminal behaviour patterns and achieve

reliable prediction on the future patterns of criminal activities. This equally form knowledge that is used for crime prevention. Currently, criminology is not as developed as other social science subjects for instance economics has developed sophisticated models for establishing laws that are ordered hierarchically. Criminology has not attained the same level of objectivity. It relies on generalizations which enable criminologists to classify behaviour in categories. The form of explanation adopted in criminology is more probabilistic than deductive.

3.6 PROBABILISTIC EXPLANATION

In the social science, particularly in criminology meaningful universal generalization is hardly possible. Crime and intellectual enquiry on phenomenon is relative to culture. It is therefore imperative that difference in culture and culture change produce probabilistic explanations. A criminologist explaining the increase of assassination during election years in Nigeria may therefore explain the phenomenon from the “winner takes it all” connotation in Nigerian politics. The assassinations have happened before during elections and so the criminologist is able to link the rise in rate of assassination to the elections. This does not form the basis for the establishment of a general and universal law linking rise in assassinations to political elections. The criminologist can only suggest that when politics involves zero- sum calculations, assassination rates may increase. This is probabilistic because it is using arithmetic ratio to link variables.

3.7 DEDUCTIVE EXPLANATIONS

There are characteristics which unveil the deductiveness of an explanation. Firstly, conditions under which the generalization holds are stated. Secondly, a universal generalization is made. Thirdly there is an event requiring explanation and behaviours they engage in, what should be done to them. How then do we gain knowledge of human behaviour? Can we use the same methods applied in the natural sciences to study human beings? Two traditions have emerged for the purpose stated above Verstehen tradition and predictive understanding.

3.8 VERSTEHEN TRADITION

This perspective assumes that criminologists act according to their interpretations of reality. Subjective interpretations are based on the meanings we learn from others and we constantly interpret our behaviour as well as those of others. This requires criminologists to constantly put themselves in the place of others especially the subject of inquiry, to gain an understanding of the assumed criminals view of reality. This tradition has led to the development of such subjects as predictive understanding.

This form of understanding is rooted in positivism or logical empiricism. The argument here is that natural and social phenomenon can be investigated by the same scientific methodology.

Fourthly, formal logic is used to establish relationships. Thou shall not take the life of another person is a universal law. If a criminologist wishes to explain why and how a person died, the search may be guided by this universal law which prohibits one person from killing another. The premise is first established and held to be true then the conclusion is adjudged to be also true.

3.9 PREDICTION

This is a cardinal aspect of scientific knowledge. This is what gives science its peculiar nature different from guess works intuition and tradition. If we know that water is formed by combining two atoms of hydrogen with one atom of oxygen ($H_2 O$) we can predict conditions under which water will not form. If the criminologist can establish that higher levels of insecurity in a state the Nigeria attracts higher security votes to the state, he or she can predict that future security threat will increase the revenue as security votes accruing to the states involved. If we know that implementation of entrepreneurship programmes during periods of economic recession mitigates the negative impact of unemployment on crime, we can predict that effective implementation of entrepreneurship programmes in the future will moderate unemployment and crime.

3.9 UNDERSTANDING

Criminologists study human behaviour. Understanding is a critical component of science which stems from the subject of interest in human behaviour. How is the understanding of human behaviour possible? The criminologist for instance is an observer as well as a participant in society. In society we have symbols - that which represents what it is not. Symbols constitute culture and societies. During studies on child abuse, commercial sex work, examination malpractice, kidnapping, ritual murders these acts are perceived as reality in criminal behaviour. But beyond the behaviour patterns there are values, mores, folkways, laws and norms, dealing with assessment of the intensity of the criminal behavior and procedure for arriving at sanctions and preventive measures. The crime language thus contains codifications on who criminals are, the kind of procedure for determining and implementing sanctions. We shall proceed to examine the how research methods enable criminologists to achieve what is stated above.

One of the problems students encounter in using textbooks on research methods, particularly in the social sciences is the arrangement of chapters. Knowledge expressed therein are voluminous and therefore do not necessarily provide simple strategies logically sequenced to guide research. This study guide is novel in this perspective. It sequentially packages research knowledge under the various stages in research implementation enabling the student to apply information directly.

4.0 CONCLUSION

The prevalent mode of knowledge seeking in Nigeria could be said to be scientific. This mode does not exist in isolation. Intuition, authoritative, traditional and mystic forms of knowledge still permeate the understanding, knowledge, interpretation and sanctioning of criminal activities. The criminologist needs to accommodate these in order to present balance arguments on crime.

5.0 SUMMARY

Traditional Knowledge stems from the cultural heritage of a people. It is hardly questioned. It derives legitimacy from the fact that it was handed over through several generations to the present.

Authoritarian Knowledge includes knowledge produced by octogenarian politicians, “General Overseers of religious organizations and other people believed to have authority to produce knowledge.

Mystical Knowledge. derives from the belief in the existence of supernatural beings that can be consulted by priests, priestesses, diviners, mediums or prophets.

Intuition: Personal Knowledge acquired through a voice that speaks to individuals.

The science in criminology.

Probabilistic explanation: suggestions drawn from previous occurrences to predict future cases.

Deductive explanation: Verstehen tradition; criminologists require to place themselves in the position of others especially criminals to gain knowledge of the criminal’s interpretation of crime.

Prediction: the criminologist can predict the future based on the understanding of how the past influenced the present.

Understanding: The knowledge gained by explaining the cultural peculiarities that determine crime punishment and prevention.

6.0 TUTOR- MARKED ASSIGNMENT

What are the characteristics of the verstehen tradition?

Why are the following forms of knowledge highly unreliable?

- a) Intuition
- b) Mystic
- c) Tradition

Self-assessment exercise (1)

- (a) Briefly describe these sources of knowledge
 - a) Traditional
 - b) Authority
 - c) Science Distinguish between deductive and probabilistic explanations.

7.0 REFERENCES

Donald A. Dillman, James A. Christensen, Edward H. Carpenter, and Ralph M. Brooks, "Increasing Mail Questionnaire Response: A Four-State Comparison," *American Sociological Review*, 39 (1974): 755.

Haralambos, M. & Holborn, M, (2000) *Sociology and Perspectives*. Fifth Edition. Harper Collins Publisher limited.

Iwarimie Jaja, D. (2014). *A brief in social Science Research*. University of Calabar Press.

Michael J. Robinson "Public Affairs Television and the Growth of Political Malaise: The case of 'The Selling of the Pentagon,'" *American Political Science Review*, 70 (1976): 409-432.

Unit 2 VARIABLES, TOPICS AND INTRODUCTION.

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content.
 - 3.1 Variables and topics.
 - 3.2 Independent variable
 - 3.3 Dependent variable
- 3.4 Intervening variable
 - 3.5 Selecting a research topic
 - 3.6 Introducing your research problem
 - 3.7 Background of the study
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References

1.0 INTRODUCTION

You have a clear idea of the problem you have chosen to study. Do not forget that in criminology there is always an element of bias in the choice of topics. The critical issue is that your topic is researchable. This can only be established if you carefully derive your statement of the problem and successfully convert it to aim of the study, objectives of the study and study hypotheses.

2.0 OBJECTIVES

When you complete this unit, you will acquire skill in identifying indicators of variables and how they can be used to form topics that are researchable. You will also know the implications of the arrangement of variables in a topic.

3.0 MAIN CONTENT

3.1 VARIABLES AND TOPICS

Research is a logical scheme of activities carried out to reveal knowledge. The term research connotes an unending process. We search and research to update knowledge. A research begins with the identification of the research topic. The topic usually determines almost every other segment that will be relevant from the statement of the problem through review of literature and methodology to summary, conclusion and recommendations. The following concepts are significant in topic selection and introduction.

Variables (i) Independent (exposure)
 (ii) Dependent (outcome)
 (iii) Intervening (confounding)

Let us examine a few hypothetical statements to illustrate variables:

- (i) Cigarette smokers are likely to die young
- (ii) Effective counselling of parents reduces prevalence of child abuse
- (iii) Drug abuse, and peer group influence increase membership of secret cults.
- (iv) High incidence of sexually transmitted diseases amongst adolescents increase the risk of HIV infection.

How can we identify the exposure and outcome in (i) and (iii)?

In (i)The exposure is cigarette smoking.Exposures normally come before outcome. The outcome is dying young. It will not be proper to state that a person engaged in cigarette smoking because he died young.

In hypothesis (iii) The exposure is effective counselling and the outcome is reduced rate of child abuse. We do not recommend effective counselling because we have insignificant prevalence of child abuse in families.

In hypothesis (iv) Drug abuse may be the exposure but it does not have a direct link with membership of a cult group. Reverend gentlemen and women, barristers,

lecturers and managers may abuse drugs and fail to seek for membership to cult groups. Peer group influence becomes an intervening agent, facilitating membership in secret cults.

The examples given above raise the issue of causality in research. Variables enable us to establish that when the rainy season sets in and the death rate due to motor accidents increase there is the likelihood that during the same period people feel cold and consume hot beverages. Does this mean that the drinking of hot tea or coffee increases motor accidents?

Variables are phenomena with characteristics that can change these are called variables. Research problems are expressed using variables. The variables suggest the direction of causality. There are different terminologies used by researchers in the social sciences to describe variables:

3.2 INDEPENDENT VARIABLE, alternatively referred to as (exposure) or (explanatory variable) explains the change that occurred in the independent variable. It is assumed to be responsible for the changes in the value of the independent variable.

3.3 DEPENDENT VARIABLE sometimes referred to as (outcome) explanatory or criterion variable is assumed to be caused or influenced by the independent variable

3.4 INTERVENING VARIABLES may be termed confounding or control variables. These are variables that moderate or facilitate the relationship between the dependent and independent variables.

Between cigarette smoking and dying young a variable such as quality health care can intervene to moderate the relationship. An intervening variable may facilitate or retrogress the influence of the independent variable on the dependent variable.

There are other variables used by scientists during research. These explain the nature of the major variables already stated. These are;

- a. Continuous variable referring to a variable which does not have minimum sized unit priori. For example, there is no unit of length to be found in nature. It is not possible to measure all length values with precision.

- b. Discrete variables have minimum sized unit. The amount of money in your bank account can be calculated and expressed in naira and kobo, no other value is added.

TYPES OF VARIABLES

Dependent Variable: The variable to be explained

Independent variable: Causes a change in the dependent variable

Intervening variable: Establishes spuriousness in the relationship between independent and dependent variables

Continuous variable: Does not have a minimum sized unit

Discrete variable: has a minimum sized unit.

3.5 SELECTING A RESEARCH TOPIC.

The first step toward selecting a research topic is to review literature in your area of interest to know what has been done by previous researchers in the area, how they carried out the researches and particularly their recommendations on areas for further study. Duplication of effort in research is thereby avoided. From this review you will identify a “gap in knowledge”. It is this knowledge gap that is reflected in the topic containing at least two variables (independent and dependent)

- Socio-economic inequality and violence against women in Rivers State 2015-2009.
- Drug abuse, peer group pressure and cultism in port Harcourt city 2010-2020

The last topic has three variables independent intervening and independent. Observe that independent variables come first, then the intervening variables and independent variables. We have already established that exposures precede outcomes. The arrangement of the variables also suggests direction of causality.

NOTE

- i. It has become obsolete to use “The impact of” or “The effects of” in topics. These are implied in the variables and how they are arranged.
- ii. Periodization is necessary when you require to identify the gap in knowledge. The same study may have been done in the past. Events or length of time after the study will enable you to justify your study.
- iii. Avoid topics that are journalistic. A journalist may wish to write on the effects of Boko Haram insurgency on Adamawa State. For a research this topic will be unwieldy because the effects may include variables such as transportation, agriculture, religion, education, tourism, security, night life etc. It is worse when a research uses only one variable e.g. Dumping of refuse in Rivers State.

Self-assessment exercise (2)

- (a) List and identify characteristics of:
 - a) Dependent variables
 - b) Independent variables and
 - c) Intervening variables.

3.6 INTRODUCING YOUR RESEARCH.

The introduction part of research enables you to state what you are going to achieve through research. You have identified a gap in knowledge. You have stated it assuming you want to introduce your research problem to an audience you will not blunt out the topic and say “This is it”. You begin by building a background information about the variables in the topic. You will introduce the variables in your topic beginning from a global perspective where necessary and quickly get to regional, national and study area perspectives. Your aim is to link your study with an intellectual terrain you want to explore further.

3.7 BACKGROUND TO THE STUDY

Introduce the variables in your topic preferably in the order they are arranged. You may begin from a global perspective and quickly zero in on your study area. Socio-economic inequality is a global phenomenon. It is found in the narratives of organizations that focus on issues globally therefore introducing this variable from

the global perspective in a few paragraphs should be necessary. Next the national prevalence should be made reference to before that of the specific study area and period of the research problem.

Violence against women share the same characteristics in term of prevalence with socio-economic inequality. Thus, the same pattern should be adopted for introducing the variable. Finally suggest the link between the two variables.

- i. Social scientists have established a significant relationship between socio-economic inequality and gender-based violence. The arguments center on how socio-economic gap between males and females fuel violence against females.
- ii. Drug abuse is closely associated with various criminal activities in criminology. Recently social scientists have argued that it is erroneous to relate drug abuse directly to any criminal activity. They observe that there is nothing intrinsic in drug abuse that instigates criminal activities. There is therefore the need to identify variables that intervene between drug abuse and criminal activities. Peer group influence for instance, becomes an intervening variable in this study.

4.0 CONCLUSION

It is critical in every research that topics suggest casualty implicitly by the arrangement of variables in the topics. This facilitates the formulation of study objectives, questions and hypotheses.

5.0 SUMMARY

Variable: phenomenon with characteristics that can vary.

Independent variable: cause changes in the nature of independent variable

Dependent variables: changes in the nature as a result of the influence of the independent variable.

Intervening variable: a variable that moderate the influence of the independent variable on the dependent variable.

You are playing snooker; you want to pot the yellow ball with the white ball. You use your stick (independent) to direct the white ball (intervening) towards the yellow (independent).

Variable indicators: aspect of variables that can be statistically measured and used for measuring relationship.

Hypothesis: Tentative statements explaining the relationship between variables in such manner that some variables are explained while others do the explaining.

6.0 TUTOR MARKED ASSIGNMENT.

1. Compose a topic with three variables dependent, intervening and dependent. List four indicators of each and link all forming a model.
2. Define hypothesis. Are variables used when formulating hypotheses?

7.0 REFERENCES

- Ekpenyong. S. (2003) Elements of sociology. Second Edition. African heritage and research publication Lagos.
- Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in Field Research, ed. Burgess, P. 245.
- Ifeanacho, M. (2012) 2nd (ed). Fundamentals of Sociology. University of Port Harcourt Press, Nigeria.
- Margaret, L.A. and Howard, F.T. (2004). 3rd(ed). Sociology. Understanding a diverse society. Eve Howard Publisher.
- Marvin Harris, Josildeth Gomes Consorte, Joseph Lang, and Bryan Byrne, "Who Are the Whites?: Imposed Census Categories and the Radical Demography of Brazil," Social Forces, 72 (1993): 451-462.

Unit 3 FORMULATING OBJECTIVES AND HYPOTHESES

CONTENTS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content
 - 3.1 Statement of the Problem.
 - 3.2 Aim and Objectives of The Study
 - 3.3 Study Questions
 - 3.4 Study Hypotheses
 - 3.5 Formulating Hypothesis
 - 3.6 Characteristics of Good Hypothesis
 - 3.7 How Hypotheses Are Used
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked assessment
- 7.0 Reference

1.0 INTRODUCTION

You have arranged the variables in your research topic properly. You have also introduced them and suggested from you understanding the direction of causality. The next step is to state the problem of the research. From the statement of the problem you will derive the aim and objectives of the study. The objectives are converted to study questions and hypothesis.

2.0 OBJECTIVES

At the end of this unit will know how to state the problem in any research and formulate corresponding research aim and objectives as well as research questions and hypothesis.

3.0 MAIN CONTENT

3.1 STATEMENT OF THE PROBLEM

This is the most critical aspect of research. If you cannot identify the problem of you study, you obviously have a big problem. You have reviewed existing and

relevant literature in your area of interest before choosing the topic to identify a gap in knowledge. Begin by stating the strands of argument as documented by some previous scholars and how subsequently more recent evidences, events and researches have produced more superior arguments. From one of the recent theses, derive a point of departure for your study.

Specifically, you have chronicled the boundary of knowledge in your area of interest. It is your intention to extend this boundary. From which point are you going to push and stop to say “this is my contribution to existing knowledge”? This was not known. Now it is known as a result of my research. This is what is new”.

Note: A statement of the problem makes reference to previous researches in the area of interest, and what the current researcher feels should be added to complement existing knowledge. This may be stated in the following forms:

- i. Studies have been conducted on a topic in many states or geopolitical zones, a researcher may choose to conduct the same research in a state or geopolitical zone not covered in previous studies.
- ii. A raging argument requiring logical investigation (A former President claims he spent 500 billion naira on roads in the South East, A South East Governor claims the former President used bad roads as a strategy for reducing the population in the same area). Several research questions arise: Was the money actually committed to road construction? Were contracts awarded? What was the quality of work done? What is the current state of the roads in the South East?
- iii. Furthermore, theoretical arguments can generate research problems especially for scholars wishing to specialize in theories.
- iv. A social policy statement even when not implemented can raise a research problem (A Government of a state intends to use billions of naira to buy school buses. The alternative is to build neighborhood schools with the same amount of money and children can walk to and from school. A research can identify the more potent strategy.

Scholars who sit on their desks and compose statements of the problem find it difficult to infuse logic and method in to their works. They, in most cases produce

speculations or self- fulfilling prophecies. Such scholars dissipate valuable energy and resources to discover water in River Niger. For these scholars, poverty directly causes commercial sex work, unemployment generates armed robbery and the denial of motherly care will lead to juvenile delinquency.

3.2 AIM AND OBJECTIVES OF THE STUDY

Derive the aim of the study from the topic. Example: This study aims at examining the relationship between socio-economic inequality and violence against women in Rivers State. The aim of this study is to interrogate the extent to which peer group pressure affects the relationship between drug and abuse and cultism in Port Harcourt. The following objectives will aid the achievement of the aim. There is only one aim for each research problem.

Before stating your objectives, identify the indicators of the independent dependent and intervening variables. The indicators will enable you collect data and measure the relationship between the independent and depend variables. If for instance we want to indicate socio-economic inequality we can use;

Income

Level of education

Social status

Property inheritance

Male child preference

Access to land

Access to capital

Turning to violence against women the questions that will arise shall be “if there exists a significant gap in each type of socio-economic inequality what form of violence against women will be enabled?

Income inequality- wife battery

Social status inequality- rape against women

Property inheritance inequality- Harmful widowhood practices

Male child preference- Unequal educational achievement

Unequal education achievement- Verbal abuse

Access to hand- Economic starvation

Access to capital- Political violence against women.

The statement of objectives shall be as follows: The objectives of this study are to;

- a. Examine the link between income inequality and the level of wife battery in Rivers State
- b. Investigate the relationship between gender social status inequality and incidence of rape against women.
- c. Find out how property inheritance by males influences harmful widowhood practices.
- d. Examine the relationship between male child preference and unequal gender achievement in education
- e. Investigate the relationship between gender unequal access to land and economic violence against women.
- f. Find out the relationship between unequal educational achievement and verbal abuse against women
- g. Examine the relationship between gender unequal access to capital and political violence against women.

A research may not have seven objectives. A researcher may choose to use three-five indicators. Other researchers may include other indicators. The most important characteristic of indicators is that data for measurement can be collected. For each objective, the researcher can collect data on income, incidence of wife battery, social status inequality, prevalence of rape, property inheritance by males, persistence and forms of harmful widowhood practices, male child preference , unequal gender educational achievement, verbal abuse against women, gender unequal access to land, prevalence of economic violence against women, gender unequal access to capital and level of political violence against women.

3.3 STUDY QUESTIONS

Convert your study objectives to questions. If your study objective is to examine the relationship between income inequality and the level of wife battery in Rivers State, the corresponding study question should be, what is the relationship between income inequality and the level of wife battery in Rivers State?

Consequently, each study objective should correspond with a study question. Note that study questions cannot be answered by responding Yes or No. Questions requiring yes or no do not qualify as study questions. A study question will require some investigation experimentation analysis of data etc. to be answered. Do not begin your study questions with “Is there” “can the”, “is it true that” etc. A study may require study questions alone. Descriptive studies involving the use of ethnomethodology can be effectively concluded without hypotheses or statistical analysis. Such studies are not necessarily inferior.

3.4 STUDY HYPOTHESIS

A hypothesis is a tentative statement linking two or more variables in such a way that some are explained (dependent variables) while some variables do the explaining (independent variables). In the process of explaining the incidence of wife battery as a function of unequal income we need to tentatively propose that; the higher the level of income inequality between males and females, the higher the level of wife battery in Rivers State. There is a recent tendency to state hypothesis as statements of fact “There is a relationship between unequal income between males and females and the level of wife battery in Rivers State. This may conform to the different formats approved by Universities, Faculties, Departments or Professional bodies.

We observe once more that a hypothesis corresponds with a study question and objective. This infuses logic into the research. Six study objectives should produce six study questions and hypotheses.

3.5 FORMULATING STUDY HYPOTHESIS

Hypotheses are not just construed because researches require them. They have to be properly derived to serve specific purposes. There are several conditions considered necessary for deriving hypotheses.

a. Absence of theoretical base or use of faulty theoretical base. If you use hypotheses in your study, you are bound to test them. The testing must situate within a body of existing theory. The above does not suggest that researchers are not permitted to think out-of-the-box. If a researcher fails to find an existing body of theory within which to locate his hypotheses, the researcher may still test the

hypothesis. This may lead to the discovering of a new way of approaching the research problem.

b. Absence of logical framework. Hypotheses need to be relevant to the research problem. They also need to be available to logical use, this is the logic in the application of the hypothesis that makes findings reliable.

c. **Ignorance in the use of techniques:**

Each hypothesis needs a corresponding technique for data analysis. A researcher who has collected data where the chi-square can be efficiently and effectively used must understand the techniques of the method. A researcher who opts for regression because of its sophisticated process but fails to acquire sufficient knowledge in its dynamics will waste valuable time and resources.

3.6 CHARACTERISTICS OF GOOD HYPOTHESES

a. **Clarity**

A hypothesis needs to be clear if it will be tested. The indicators of the variables in the hypothesis should be clearly noted. If a hypothesis states that there is a significant relationship between motivation and worker's performances how will you test this? Motivational has indicators such as pay, participation in target setting etc. workers performance has even more indicators, output, manhours put in, responsibilities, supervision given and taken etc. this in an example of a poorly stated hypothesis. It is not testable. In structuring your hypotheses, you must make reference to how scholars in the relevant areas had developed models which link your variables. There after you may use the model or modify it in order to justify your study. For instance, if a researcher used four indicators of a variable in a study, you may wish to add another relevant indicator of the same variable to just what is new in your work.

b. **Specific**

The hypotheses in a research need to be specific in terms of the direction of influence. Where necessary the conditions under which the direction of influence will be sustained can be acknowledged using intervening variables. There should be charity in the operational definition of concepts to accommodate variations in time, space and size.

c. Value Free

A hypothesis must not accommodate nuisance, values, subjectivity preferences, and biases. In the social sciences attempts by scholars to address social problems from an entirely natural position has produced disastrous results. Radical sociology recommends that sociologist and criminologist identify with progressive forces in society to push for change of the status quo. Where a researcher is able to identify his personal bases, they should be made explicit.

d. Testability Using Existing Methods

The variables in a hypothesis require specific tools for measurement. If we hypothesize that the level of education is related a variety of criminal activities. This can only be test with instruments that enable us observe these activities.

3.7 HOW HYPOTHESES ARE USED.

Fluid on direction of investigation. Hypotheses serve as guide on the direction of investigation. If you are a criminologist investigating the effects of gender - based violence on the stability of marriages,the hypotheses will guide, you in selecting marriages recorded in family welfare units as having reported cases of gender- based violence. The search light will be beamed on activities which constitutesgender-based violence and indicators of marital stability. You will not include every married couple in your population or sample.

Selection of Critical Factors.

The use of hypotheses enables researchers to selected the critical factors in their studies. A criminology investing Secret Cult wars and Migration Patterns in the Niger Delta will first select communities that have significant prevalence of secret cult wars. Next the researcher will trace, those that have migrated from these communities to establish the patterns. This way the research will not go to communities that have not experienced inter-cult war to calculate useless data.

Specificity in Conclusions

A hypothesis is a tentative statement suggesting relationships between two or more variables. It is the hypotheses that explains the determining variables and

guide the investigation of the intervening and determined variables, leading to specific conclusions.

4.0 CONCLUSION:

This unit is without doubt the most vital aspect of research in criminology. If the problem is wrongly stated, the wrong aim and objectives will follow. Once the section is properly written the rest of the research will assume an auto-run form.

5.0 SUMMARY

Statement of problem stating what researchers have done in an area of study and what you think was left out or a statement raising issues using existing data and suggesting an intellectual inquiry to establish the state of affairs.

Aim of The Study: This is derived from the topic using the variables therein.

Objectives of The Study: statements expressing how you intend to investigate the relationship between the indicators of the dependent and intervening variables as the case may be.

Hypothesis: a tentative statement expressing relationships between variables in such manner that some are explained while others do the explaining.

6.0 TUTOR MARKED ASSIGNMENT

1. The statement of the problem in any research must acknowledge the contributions of previous scholars before identifying the knowledge gap for the new study. Discuss.
2. Write five objectives of a study and convert them to study questions and hypotheses.
3. What are the characteristics of a good hypothesis?

SELF ACCEMENT EXERCISE (3)

- a) Define hypothesis.
- b) List and discuss the characteristics of a good hypothesis.

7.0 REFERENCES

Iwarimie Jaja, D. (2014). A brief in social Science Research. University of Calabar Press.

Karl Popper, *The Logic of Scientific Discovery* (New York: Science Editions, 1961), p. 106.

Marvin Harris, Josildeth Gomes Consorte, Joseph Lang, and Bryan Byrne, "Who Are the Whites?: Imposed Census Categories and the Radical Demography of Brazil," *Social Forces*, 72 (1993): 451-462.

Robert F. Bales, interaction Process analysis, by permission of Chicago University Press.
Copyright ©The University of Chicago Press.

Unit 4 INTRODUCTION AND REVIEW OF LITERATURE.

CONTENTS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
- 3.1 Relevance of the study
- 3.2 Scope of the study
- 3.3 Definition of the concept
 - 3.4 Literature review
 - 3.5 Conceptual review
 - 3.6 Empirical review
- 3.7 Theoretical review
 - 3.8 Summary literature review.
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

1.0 INTRODUCTION

In concluding the introductory section of your research, you need to strengthen your intellectual stance by stating the relevance of your study. You also require to guard your intellectual loins by delimiting your study to avoid unnecessary criticisms. This is achieved through scope of the study. Thereafter the key variables in the topic are clarified so that the intellectual community will share particular meanings in your use of concepts. The unit ends with review of literature in your study area.

2.0 OBJECTIVES: Equipping students with skill in justifying their research through the relevance of the study and particularly review of literature. When the student summarizes the literature review the knowledge gap is reinforced.

3.1 RELEVANCE OF THE STUDY.

A research if conducted properly should contribute to existing knowledge. In the social sciences such contribution should have policy implications.

First, state what this contribution to knowledge is. Four questions thereafter arise; Who can benefit from exposure to your contribution to knowledge; researchers, students? Of what practical use is your contribution to knowledge to practitioners, administrators and other members of society? How can we use your findings to make better policies for the future and who should be responsible for implementing the recommendations? When the researcher answers these questions the relevance of the study becomes apparent.

The relevance of your study is closely related to the gap you identified in existing knowledge while reviewing literature. The relevance of your study should be stated in relation to existing knowledge. This should be new. It is only after this that you may proceed to state its policy or practical relevance noting exactly what use it will be to policy makers, decision makers or those who implement decisions. The relevance of your study could only be theoretical or methodological if the method or theory in question is being used in a new way i.e. other scholars have not used the theory or method in the way you intend to. It is not advisable to assume that a new theory can be derived from your study, this may be possible but would take a lot of other studies to confirm validity and reliability.

3.2 SCOPE OF THE STUDY

Knowledge content; the knowledge content consists of the specific problem the study wishes to investigate.

Example; Topic Emotional Intelligence and the Performance of Shell Petroleum Development Company (SPDC) Supernumerary Police Officers in Port Harcourt. The knowledge content specifies how self-awareness, optimism, empathy, self-regulation and social skills influence the ability of the police officers to prevent crime in SPDC.

Coverage content: The geographic specification of the area of the study. SPDC has several branches in Nigeria at which these Supernumerary Police Officers function. The host communities are peculiar in terms of culture, militancy, youth restiveness etc. The coverage of your study is the geographical area identified as Port Harcourt. The findings of your study shall only be adjudged to be valid or reliable within the context of Port Harcourt as an area.

3.3 DEFINITION OF CONCEPTS

Begin by defining the independent variable in your topic followed by the dependent variable. There may be other variables which may be subject to different interpretations in your work. You may define them. Avoid defining obvious concepts such as work, worker, bank etc.

3.4 LITERATURE REVIEW

Organize your literature review, under three themes; Conceptual, Empirical and Theoretical.

3.5 CONCEPTUAL REVIEW

Using text books and journals, show and understanding of how scholars used the major concepts in your topic. The essence is to project the various ways in which scholars have linked the independent variables in your study to the dependent variables.

3.6 EMPIRICAL REVIEW

Review literature on existing works zeroing in on the various objectives. If the objective is to investigate the relationship between gender social status inequality and incidence of rape against women, search for works on this and briefly state who authored the work, where and how it was done and the findings and recommendations. Use each objective as a theme and search for recent works. This way your research will be logical and focused.

3.7 THEORETICAL REVIEW

This may not be necessary in all research. Some scholars will focus only on the theory adopted for the work while others may state and review relevant theories before identifying the specific theory adopted. Whichever method is preferred, it is always important to specify the theory adopted after expressing its proponents, assumption applicability and suitability.

3.8 SUMMARY OF LITERATURE REVIEW

Provide a brief summary of the strands of argument in the conceptual empirical and theoretical literature review. If you do this properly you will discover that you

reinforced your statement of the problem and justification for the study. The summary of the review of literature enables you to state once more that you have perused the literature relevant to your study. In the process you discovered that existing literature do not cover the specific problem you intend to study. In a research process, the objectives constitute the figurative “shopping list”. When you are through with the shopping you can now check your basket to see what you bought and what kind of dish or dishes can be prepared. So it is in research. First examine your findings. From this you will know the contributions you have made to literature. State them first to show their values. then proceed to say who will benefit and how. Do not state theoretical relevance unless you have propounded a new theory or applied an existing theory in a new way. Focus on the social categories that will derive benefit from reading your work e.g. Managers, policymakers’ students, teachers, practitioners etc.

4.0 CONCLUSION

if you have effectively understood this unit you are 50% ready to function as a good researcher. You would have realized that research is as good as leisure. A good literature review gives your study a solid foundation giving you the opportunity to carve out a space for you as a scholar.

5.0 SUMMARY

Relevance of the study: The value your study will add to existing knowledge, who will benefit from this and how?

Scope of the study: The knowledge content and the geographical area of the study.

Literature Review: the use of previous studies by researchers to create space and justification for their studies.

6.0 TUTOR MARKED ASSIGNMENT

1. Identify and discuss the two critical parts of scope of a study.
2. Literature review is critical when a) Choosing a topic and b) Stating the study problem. Discuss.

7.0 References

Chava, .F. N. and Nachmisa, D. (1996) 6th(ed). Research methods in the social Sciences.

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). Sociology. The McGraw Hill Companies Inc.

Ifeanacho, M. (2012) 2nd (ed). Fundamentals of Sociology. University of Port Harcourt Press, Nigeria.

MODULE 2. STUDY DESIGN.

GENERAL INTRODUCTION.

Module one has equipped you with wherewithal to develop interest in research methodology in criminology. Like many social science subjects, criminology adopts the scientific enquiring model. The science in the inquiry begin with the use of variables to structure topics. The variables provide indicators that links two or more variables in the topic. The aim and objectives of the study crystalize. The structuring of the study question and hypothesis become apparent. You are going to make progress by learning how to design you study and further use the design to select tools for data collection data analysis.

Unit 1 UNDERSTANDING STUDY DESIGN.

CONTENTS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
- 3.1 The meaning of study design.
- 3.2 The different kinds of study design.
- 3.3 The advantages and disadvantages of any study design
- 3.4 The appropriate study design for any research problem.
- 4.0 Conclusion.
- 5.0 Summary.
- 6.0 Tutor Marked Assignment.
- 7.0 References.

1.0 INTRODUCTION

Study designs are critical in criminology. It is the design that ensures that the research problem is properly addressed. The research design guides the researcher in selecting corresponding data collection, sampling and data analysis techniques. The design guarantees that the aims and objectives of any research are achieved. Many scholars make the mistake of repeating literature review in chapter three, under methodology. Such scholars write volumes and cite literature on such concepts, as “the survey method” “sample”, sampling technique “quota sampling” etc. The aim sometimes is to make theses and dissertations voluminous. Your thesis or dissertation is not designed to educate readers on methodology. There are texts that have been produced for this purpose. The critical issue within this context is the explanation of the manner in which every research tool will be used by you and why. Statistics is more important than grammar in this unit. In research there are specific methods that are necessary for conducting the field work. The originality, authenticity and reliability of any research are to a large extent functions of the methods used during the field work. The topic may be appropriate if the wrong methods are used in collecting data or the data collected vary with the objectives and hypotheses of the study, the data analysis will be unreliable. The findings will be at variance with the aim and objectives of the study. The recommendations will not be applicable to the research problem. To avoid these mistakes, we shall discuss study design.

2.0 OBJECTIVES

Gain appropriate knowledge of the meaning of research design, the difference between qualitative and quantitative designs, and which aspect of each to select depending on the nature of the research problem.

The objectives in this module include;

- a. by the end of the module, the students would have development potential in;
- b. Knowing which study design to use considering the research problem and the data required.
- c. Learn the meaning of study design
- d. List and explain the different kinds of study design.**
- e. Understand the advantages and disadvantages of any study design
- f. Identify the appropriate study design for any research problem.

When you select a research problem it is pertinent that you ask a few questions while considering how to structure your approach to finding its solutions or establish the reliability of findings. For instance, you can ask how do I know this is true? (If the finding is already known) or. How true should this finding appear to another person? What kind of study was designed to uncover this finding? What type of study should I use to get reliable information?

3.0 MAIN CONTENT

3.1 UNDERSTANDING STUDY DESIGN

When you have stated a research problem there are usually corresponding questions which arise. These include'

- Installation of CCTVs and crime prevention in Abuja metropolis
Question how does the installation of CCTV affect crime prevention?
- Socio-economic inequality and violence against women in Port Harcourt
Question is socio-economic inequality related to gender-based violence?
- Drug abuse, peer group influence and prevalence of armed robbery in Kaduna is there any relationship between drug abuse, peer group influence and incidence armed robbery?

When considering your answer, Yes, No, or this is the connection, you will equally ask how should I design a study to detect the answer? Would it be ethical

for you to use a group of criminals and instruct that they should commit crime while the police will engage in preventing the criminal activities? Can we bring males and females who obviously are unequal in social and economic status and request for violent activities problem? Is it ethical to ask peer groups to abuse drugs while we note its relationship with armed robbery? All the designs above would be unethical.

We can have a baseline from which we derive two equally periods before and after the installation of CCTVs and use crime records and other relevant data from the police and convicted criminals to establish a relationship between the installation of CCTV cameras and crime prevention. Furthermore, it is possible to identify co-habiting males and females and study the extent to which socio-economic inequality influences violence against women. Data from convicted armed robbers should enable us interrogate how their membership of groups engaged in drug abuse facilitated their exposure to armed robbery.

Research approaches can be categorized as follows:

- i. Qualitative research
- ii. Quantitative research

Qualitative Research

Qualitative research is a form of investigation which aims at gaining understanding of a problem by focusing on the people who are experiencing the problem of the study. It examines the problem from the human perspective. For this reason verbal descriptions, observations, pictures and existing materials are used during data analysis. Qualitative studies investigate experiences with a view to revealing how, why and under what condition does an event take place. Qualitative studies also uncover how things work or how they occur.

Qualitative research enables a criminologist to gain in-depth understanding of recidivism by using interpretative and open-ended methods. Here the inmates that are liable to the problem participate and also become respondents rather than objects of research. Finally, quantitative research can aid the understanding of the meaning of events decisions or actions and use the data generated to build

theories. When factors that are intangible are involved in study, the qualitative research becomes useful for understanding values, beliefs, opinions patterns of behaviour, norms, folkways, taboos which require explanation within a social context.

Quantitative Studies

Assume that you are presented with an area picture of Bundu Waterside in Rivers State. What will attract your attention will be the crowded batchers and all sorts of make shift accommodation. Since the area was not planned, it will be crowded with roofs dove tailing. The areal picture of the Government Reserved Area (GRA) will be different. The houses and streets are clearly demarcated. What one may not see from the picture is the people living in those two zones. A different set of pictures replace the two above and now you have children using empty cans of milk and soft wood to construct toys. Another picture shows children on swings, and mini plastic cans. You can now appreciate what life will be like in the two areas.

Quantitative research is the view from above. It is a study of numbers which are statistically expressed to form a pattern. What is analyzed is relationships between the numbers to establish measurable evidence.

Let us examine research designs under the two categories. Note that we are selecting a few examples of both especially those are practicable in criminology research.

Controlled Experimentation

The first characteristic of the study design is that it has very high potential for uncovering causal relationship. It accommodates pretest, post- test and control group and experimental group comparison. The pretest establishes a time frame for comparison after the post test.

Example: The federal government has proposed the replacement of correctional Centres (prisons) with technology- facilitated home restrictions. The Federal government wishes to know the attitude of Nigerians to the proposal and a criminologist is commissioned to conduct a study on this.

Stage 1: We can conduct an experiment using two groups. Both groups share educational qualifications etc. The pretest can establish the attitude of both groups to the proposal. A negative attitude is registered in the two groups.

Stage 2: The experimental group will be exposed to current information on home or community based correctional programmes. The control group does not participate.

Stage 3: A post- test will constitute a repeat of the pretest experiment if a positive attitude is expressed predominantly amongst the experimental group after the post- test, it will be assumed that the exposure to current information on the policy caused the change in attitude. There is also the possibility that the experimental group may express change in attitude as a result of the awareness that particular attention has been accorded the group necessitating the conforming to expected results.

This design can only be recommended when available time for research is sufficient and the finance involved is assured. There may also be the need for facilities where the tests can be conducted.

3.3 STRENGTHS AND WEAKNESS OF EXPERIMENTAL RESEARCH

- When a study involves testing of hypotheses, the experimental design serves as veritable tool for gathering testable data. The data may also be used to test theories.
- We have started experiencing extreme weather conditions such as prolonged rainfall and flooding. Experimental research is adequate for analyzing complex social influences. This method enables us to study the influence of flooding on drug abuse, commercial sex work, etc.
- Experimental design facilitates direct observation of social processes. A criminologist can use the experimental design to observe methods of selling drugs in motor parks(ports).
- Experimental design enables researchers to study relationships of cause and effect and determine the direction of the relationships.

- Because of the flexibility, applicability and adaptability of the scientific method, its relevance stretches from sociology, psychology, criminology and social psychology.
- The experimental design is characterized by the possibility of manipulating the independent variables thus satisfying the criterion of control.

WEAKNESS

- The first weakness of the experimental method is that aims at directly relating stimulus to response. Even if this is possible with a sample population, it may not hold any truth for the general public. Artificiality characterize these experiments.
- Experimental method is sufficient when a small group is involved. Researches on large populations render the experimental design ineffective.
- A problem associated with experimental design is control of the groups involved. It is not possible to select groups that are equal in all social attributes.
 - The data collected using the experimental design is always limited. Inferring from such limited data as problematic.
 - Time differences constitute a major problem in experimental research design. The period of experimentation may produce results that will not be valid outside the specific time frames.

CROSS SECTIONAL DESIGN

Many problems studied by social scientists are not amenable to one-direction causality and therefore not suitable to the application of experimental design. The experimental design relies much on the manipulation of the independent variable. This becomes almost impossible when we introduce such variable as gender, age,

race or ethnic background. As a criminologist you cannot make your sample younger or older during research neither can you effect transgender.

Under such circumstance, the criminologist relies on property disposition relationship.

Property refers to such variables as sex, age race which may be related to attitude of behaviour (disposition). The criminologist usually asks a random sample of individuals to answer questions on past experiences, age, gender and attitude using a questionnaire. The data collected will be used by the criminologist to establish property disposition relationships.

Example: Who supports electoral violence in Nigeria?

Attitudes towards electoral violence has serious consequences for security of lives and property in Nigeria. There are researches that have distanced females from electoral violence. A criminologist may conduct a study (cross-sectional) using a representative sample of males and females asking questions that will reveal the attitudes of males and females towards electoral violence. The research may introduce another variable (age) as independent variable related to attitude.

In this study, the researcher is not able to alter sex or age. There is therefore no provision for pretest at a particular age or sex and a posttest. The criminologist therefore is compelled where necessary to use statistical analysis to approximate some of the operations found in the experimental design.

The cross-sectional design can be described as a survey. A survey may be describe as a poll that enables a researcher collect data and use these to establish relationship between variables. It is a research activity with standardized data and data collection from a large number of people in a statistical form. The 2006 national census is a typical example of a survey. Surveys are equally veritable instruments for conducting polls, market surveys, prevalence of patterns of crime establishing relationship between criminal activities and tourism etc. Surveys may be carried out in natural settings and may not require special equipment and space.

The survey method: strengths and weaknesses.

- The foremost advantage of the survey method is that it can be used to describe the characteristics of a large sample. The researcher does not need to interview each unit in the sample.
- The survey method enables a researcher to search for independent and dependent variable and to an extent weigh the importance of multiple variables in causal relationships. A criminologist can therefore assess the influence of age, religion, place of habitation, sex and income on drug addiction. The multiple rate analysis is a useful tool in surveys.
- Criminologists interested in examining social change or documenting the existence of a specific social problem will find the survey research design very useful. Such social problems as rape, sex-based inequality, discrimination in the criminal justice system and kidnaping will require the survey method to establish their prevalence rates and reveal how they are increasing or decreasing.

Weakness

- Surveys use questionnaires that are closed ended. The options provided guide the participants in slotting particular options as requested. There are questions that may not correspond to options provided. To fulfil all righteousness, sample units will force options into categories where they may be wrong.
- The most popular instrument used during survey is the 5 point or modified 4points Likert scale which range from Strongly Agree, Agree, Strongly Disagree, Disagree to Undecided. People's opinions may not necessarily conform with the options when emotions are involved. How do you expect people in the Niger Delta where kidnaping occurs on a daily basis to use the lickers scale?
- Many scholars have expressed reservations on the manner that Social scientist regard data collected during surveys as facts that should provide actionable recommendations after analysis. Such social scholars feel that caution should be exercised as these "facts" may be over or under stated by the samples during surveys.

4.0 CONCLUSION

There are two major types of research design, qualitative and quantitative. Both have strengths and weaknesses. Your choice to a large extent will be determined by the problem of your research.

5.0 SUMMARY

Experimental design: used by researchers to gain control over extrinsic and intrinsic variables, causality is strongly believed. Controlled experimental design: involves pre-test, posttest and experimental group and control group comparisons.

Cross-sectional method: used for conducting research in real life situations using probability samples.

Qualitative research: examines problems from human perspectives using description observation, pictures and discussions.

Quantitative research: the use of statistics to form a pattern for analysis and understanding.

6.0 TUTOR MARKED ASSIGNMENT

1. Develop a quasi-experimental design to study the enlightenment programmes for curbing drug abuse.
2. Discuss the strengths and weaknesses of the survey design.

7.0 References

Chava, F. N. and Nachmisa, D. (1996) 6th(ed). Research methods in the social Sciences.

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). Sociology. The McGraw Hill Companies Inc.

Ifeanacho, M. (2012) 2nd (ed). Fundamentals of Sociology. University of Port Harcourt Press, Nigeria.

UNIT 2 QUALITATIVE DESIGNS.

CONTENTS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content
 - 3.1 Mixed Method.
 - 3.2 Historical research
 - 3.3 Content analysis
 - 3.4 Case study
 - 3.5 Summary.
- 4.0 Conclusion.
- 5.0 Summary
- 6.0 Tutor Marked Assignment.
- 7.0 References

1.0 INTRODUCTION

You have been introduced to some variants of experimental and quasi-experimental research designs. Let us look at the mixed method, historical method, content analysis and case study. These designs can assist criminologists in different ways when conducting peculiar researches amenable to each design. You will observe that these methods do not require hypotheses. Only research questions are posed and answered in data analysis.

2.0 OBJECTIVES: At the end of this unit you will appreciate the richness of studies conducted with the mixed design, the historical approach, content analysis and case study.

3.0 MAIN CONTENT

3.1 MIXED METHOD

In mixed research design, the criminologist combines or associates both qualitative and quantitative approaches. The method derives strength from the shortcomings associated with using only qualitative or quantitative method. We shall use examples to demonstrate the three types of mixed methods.

Example 1

Development: The research problem is crime and safety in maritime transportation in Rivers State.

Stage 1: The criminologist can begin by administering indebt interview on a few stakeholders. The interview will generate information on the nature of the problem, the relevant hypotheses to be used in the study and how and when to conduct another study. The study may generate new hypotheses.

Stage 2: A survey may be planned for the entire Rivers State involving a larger population data, and statistical analysis. The researcher can compare these results to those obtained from the qualitative study.

Example 2

Complementarity: Assuming we conducted the quantitative survey first and derived our results on the relationship between crime and safety in maritime transportation in Rivers State. We may use FGD to gain deeper knowledge on the specifics of the relationship:

Stage 2: The criminologist shall adopt a quantitative method to clarify explain or more fully expatiate on the result of the quantitative survey. If for instances the result linked maritime crime with specific periods at night a quantitative method can be used to clarify the linked between crude oil bunkering at night and other forms of criminal activities.

Example 3 Triangulation

This method allows the criminologist to collect qualitative and qualitative data on the research problem at the same time. The intention of the research as to convey corroboration or concurrent validation of the data. Note that different methods are used to collect data on the same problem. The criminologist will then do analysis to ascertain the extent to which both sets of data either produce the same or different results. The approach enables a researcher to tell a complete story (from above and from below) at a specific point in time.

3.2 HISTORICAL RESEARCH

History is one subject that necessarily aids the articulation of facts or information in all subjects. Every discipline has a history. That history tells us the course of the development of the knowledge, methods and practices peculiar to the subject. History is absolutely critical for the development of the social sciences

particularly sociology. Criminology shares methods with sociology and thus criminologist will find the use of the historical method in doing research necessary.

History may be viewed as the articulation of events which make meaning of when and how an event occurred. There are many First and Second Worlds war books. These books chronicle events from the perspective of the author during the period preceding the wars linking them to the beginning of the wars. Some of the books focus on why the wars occurred and how they ended. Others specify battles that were won or lost and how these affected the winners or losers. These constitute history Borg posits that historical research is the systematic and synthesis objective location, evaluation synthesis of evidence in order to establish facts and draw conclusions concerning past events.

Sociology aims at understanding the past to make meaning of the present. The subject also uses the meaning of the present to predict the future. It is for this reason that young projected the link between history and sociology. His position is that the location of the past contains the key to the present, the past influences the future as yesterday shaped today and yesterday will probably influence tomorrow. It is for this reason that the historical method can be adopted for social research.

Historians who wrote books on the World Wars above were not interested in formulating general laws that can predict when world wars will occur again. They were also not challenged by the need to stipulate conditions under which a World War will not occur. However, the use of history by the social scientists can provide data that will generate early warning signals as well as conditions under which a World War should be anticipated.

The history design in research facilitates the understanding by social scientists of the process of social change. It also helps criminologists to make meaning of institutions and organizations. The growth in the educational institution in Nigeria can be achieved by observation on past events in the country and within the institution.

Example 1

Origin of the Nigeria Police Force and policy brutality. The criminologist is expected to identify the nexus between how the Nigeria police force originated and the persistent of the use of brutal force in its operations. This problem may require historical materialism, a perspective within conflict heritage which focuses on how during material production certain social forces emerged to determine social relationships. Historical materialism would therefore examine how production was organized during the colonial period, the contradictions which arose (the exploitation of resources in Nigeria to facilitate industrialization in Britain and the development of revolutionary consciousness amongst Nigerian workers). Data on the coal miners' riots, the Aba Women's riot and other resistance movements threatening the economic interest of the British necessitated the institution of a "police of occupation", a policing system designed to cage the people in the interest of the dominant social category. The criminologist will therefore argue that the institution was not reorganized when it was inherited by the ruling elite after 1960. Consequently, the police institution retained the tradition of containing civil society particularly in areas where the economic and political interest of the political elite are threatened. Brutal force remains a very potent alternative within this historical context.

The use of the historical method in social science research has remained prominent as it provides useful methods of explaining development processes. Think about the origin of armed robbery in Nigeria and how any criminologist can meaningfully conduct a study on this without making reference to the periods before and after the Nigeria and civil war.

Advantages of the Historical Method

- The historical method provides foundation information that will serve as an overarching principle for the selection of data and analysis of data during research.
- Some research problems would have remained unexplorable without the historical research method.

- Criminologists are able to analyze data on past events under the then prevailing circumstances. This provides valuable opportunity for studying for instance political violence in the 1960s and 1970s using historical data.

Disadvantages of Historical Method

- **Weak Documentation:** Record keeping is not one of the enviable characters of Nigeria institutions. Records are so dispersed that they do not form any bigger picture. How will a criminologist use all the capturing exercises during payment of pension, issuance of driving license, issuance of tinted car glass permit, issuance of BVN etc. in fifty years' time?
- **Bias in Documentation:** Documentation of events is influenced by religious and ethnic background of documenters. The use of such data reduces objectivity.
- **Subjective Interpretation:** We are now making reference to the criminologist interpreting data on past events. The researcher may give subjective interpretation to produce inaccurate findings.
- **Limited Coverage:** Considering the limitations imposed by scarcity of funds dysfunctional transportation means, poor remuneration, original composers of data may not record events in a holistic manner.
- **Problem of inference:** No past event can perfectly match any current event today.
- **Overgeneralization:** This may be the case when a criminologist over generalizes his results. We must be humble and objective in generalizing.

3.3 CONTENT ANALYSIS

In some cases, criminologists do not study groups and people directly rather, the focus of the researchers will be on the products of social behaviour. Criminologist sometimes research relevant data in contemporary and historical documents or forms of art such as newspapers, national statistics documents, autobiographies, memoirs myths, song lyrics, constitutions, bye laws, paintings or even graphics. The important characteristic of all the above is that they can be used to make meaning of a peoples' patterns of behaviour after reconstruction. A criminologist can therefore use this research design to systematically organize and summarize both the manifest and latent content of behaviour.

Example

In some traditional societies in Nigeria, the cosmology incorporates a belief system which rationalizes life after death. Such societies bury their dead with ornaments needed for life beyond the physical world. These range from plates cutleries through mats and human leads that would serve as slaves or domestic assistant to the dead.

Such societies do not use human leads of members of their communities. Young and brave men are sent to other communities to provide the human heads “head hunters” such human heads are buried along with corpses of kings and “High Chiefs”.

A criminologist using the content analysis method to organize stories, pictures and biographies on this practice will illustrate the obvious intended the fulfillment of necessary provisions for burying kings and High Chiefs as well as the underlying and unintended, the criminal act of murder in other communities. The head hunters are heroes in their communities and criminals in other communities. The computer has provided opportunities for examining an issue from different perspectives. This can be utilized by criminologists to analyze pictures, articles and other works of art from different perspectives.

Example 2

Archeologists discovered a mass grave dated 1852 and cause of death was predominantly body injuries indicating cuts stablign’s and piercing of bodies. From different perspectives using the computer, the criminologist may reconstruct wars between pirate groups and how that affected technology, transportation etc during the period.

Criminologists use content analysis as a technique for systematic, objective and quantitative description of the manifest and latent content of communication. Objectivity, system and generality are achieved by counting the frequency with which a variable appears in relation to another variable.

Example 3

Gender roles in Nigerian Music videos

A criminologist can collect a sample of Nigerian music videos under broad categories. The video will be examined to note lyrics, dance steps, clothing styles,

gestures etc. The analysis will establish differences. Gestures for men indicate macho moves, assertions of power while female moves are romantic and erotic. Men dress in roughed clothes. Women dress to reveal particular body parts. The conclusion could be drawn that in music videos in Nigeria, females play subordinate roles to males.

Content analysis according to Holsti (1968) is any technique for making inferences by systematically and objectively identifying specified characteristics of messages". The message has five attributes, words, themes, characters, paragraphs and items. If these attributes are properly formulated and adopted properly to the research problem, content analysis becomes useful and effective. Specific aspects of content analysis are qualitative while others are quantitative.

Quantitative calculations can be introduced to content analysis by

- Designing an intensity system in analysis of values and attitudes
- Formulating a time-space system to measure for example space accorded to fighting crime in a newspaper or hours devoted to crime enlightenment programmes on the radio.
- Developing a frequency system to note the rate at which every occurrence of attribute is recorded and
- Provide an appearance system used by coders to identify appearances of certain attributes.

These can provide data for testing hypotheses using quantitative formulas. Instead of observing people, criminologists use content analysis to systematically analyze data obtained from archival records (films, videos, audio recordings, books, newspapers, magazines etc.).

3.4 CASE STUDIES

There is the case study design. Many researchers, particularly students title most of their works "case study" without understanding this design and how it is conducted.

A case study involves the observation of a particular group or event at a specific point in time especially after a natural or human made event that assumedly

produced change. For example, we can study a community after the construction of a railway system through its territory, the state of the People’s Democratic Party PDP in Nigeria after a general election, a university after a major intervention in infrastructure. The case study will provide results. The results may prove absolutely unreliable when inferred to other case even when they seem to be similar. The problem of solid evidence for inferring causality is compounded by time.

We observe in symbolic interactionism that no two social events are exactly the same therefore observations made at a particularly point in time cannot provide any meaningful basis of comparison. If we keep conducting research without the benefit of generating comparison, an essential component of making causal inferences we shall engage in meaningless duplication of material and human resources. The case study does not accommodate before and after observations, it equally exercises little control over extrinsic and intrinsic factors. It simply cannot be used for testing causal relationships. It is as a result of the above that case studies are no longer in vogue. Supervisors bear the responsibility of deleting case studies from research topics

3.5 SUMMARY; When a researcher has stated his research problem and developed study objectives and hypotheses, he then considers the best logical steps and strategies that should aid him in collecting the necessary data for the study. In this unit we have categorized research designs into qualitative and quantitative. The nature of the research problem should guide the researcher to choose an appropriate design. Listed below are the advantages and disadvantages of some of the designs.

EXPERIMENTAL DESIGNS	
Advantages	Disadvantages
<ul style="list-style-type: none"> i. Facilitates the control of intrinsic and extrinsic variables ii. Permits the use of intervening variables to link the 	<ul style="list-style-type: none"> i. External validity is weak because real life social situations are not replaceable ii. The samples used in researches may not represent

independent with the dependent variables	the population. Samples comprise of volunteers and self selected participants
CROSS-SECTIONAL AND QUASI	
<ul style="list-style-type: none"> i. External validity is strong due to the use of probability sampling technique and researches are carried out in natural situations. ii. Internal validity is limited but, however it enables researchers to investigate situations under which the assignment of individuals to control or experimental group will be termed unethical or impossible 	<ul style="list-style-type: none"> i. Unambiguous inferences are impossible due to lack of strict control over variables. ii. The direction of causation is theoretically or logically derived since the independent variable cannot be manipulated.

4.0 CONCLUSION

The mixed method, historical method, content analysis and case study can be used to do research that will convey voluminous meaning to an audience. You need to have a full grasp of the strengths and weaknesses of each of them.

5.0 SUMMARY

Mixed method: the mixed method in research combines qualitative and quantitative approaches to research.

Historical research: the synthesis of evidence to establish facts and draw conclusions concerning past events.

Content analysis: the use of existing data to establish causality or portray a people's pattern of behavior.

Case studies: observation of a particular group or event at a specific point in time especially after a nature of human made event.

6.0 TUTOR MARKED ASSIGNMENT

1. Discuss the strength and weaknesses of the historical research design.
2. Use a topic of your choice to design a study adopting the mixed method approach. illustrate the aspects that will be subjected to each design.

7.0 REFERENCES

Donald A. Dillman, James A. Christensen, Edward H. Carpenter, and Ralph M. Brooks, "Increasing Mail Questionnaire Response: A Four-State Comparison," *American Sociological Review*, 39 (1974): 755.

Edward E. Evans-Pritchard, *The Nuer* (Oxford: Clarendon, 1940), p. 15.

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). *Sociology*. The McGraw Hill Companies Inc.

Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.

Robert T. Michael et al., *Sex in America: A Definitive Survey* (New York: Little, Brown, 1994).

Shepherd, J. M. (1981) *SOCIOLOGY*. West publishing Company New York.

William Kornblum, *Blue-Collar Community* (Chicago: University of Chicago Press, 1974).

UNIT 3. ETHICS IN RESEARCH

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content
 - 3.1 Ethics in Research.
 - 3.2 Ethical issues
 - 3.3 Respect
 - 3.4 Beneficial
 - 3.5 Justice
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Code of Ethics in Social Science

1.0 INTRODUCTION

There are ethical issues in almost all researches conducted by criminologists. We are not dealing with matter. Experiment involving animals involve weighty moral ethical concerns. The magnitude of these are enlarged when humans are involved. As a result of rising levels of enlightenment and awareness ethical issues attract very expensive legal tussles. Criminologists need to be fully aware of these ethical issues and follow due process to avoid the negative sanctions that correspond to each principle when violated.

2.0 OBJECTIVES: you are required to acquire full knowledge of the meaning of ethical issues in research. Furthermore, you identify the cardinal principles of ethics and know how to avoid violating any of them.

3.1 ETHICS

Ethics in research aims at protecting the rights, safety, welfare and in integrity of human subjects. History has recorded different forms of horrendous abuse of human rights during researches carried out by most Euro-American countries. The most liable being Germany as a result of the experiments mostly medical

involving the Jews Africans and other ethnic nationalities held in concentration camps. It is undeniable that some medical breakthroughs were achieved the question relevant within this, context is at what cost of human dignity? Some of the researchers deceived participants with placebo, lied to participants on the nature of the research problem or administered substances that will be categorized as first-class poison on participants as trial vaccines.

The international agencies that have been at the forefront of the battle against human abuse in research include:

- **The Hellenistic Declaration (1964):** In this declaration, the world medical Association outline, ethical principles guiding human experimentation - The pacts to informed decisions. Furthermore, provisions were made for the welfare and interests of subjects to take precedence over the need of science.
- **The Bemouth Report (1978):** This was instituted by the United States of America. It provided specific guidelines for safeguarding humans participating in research. The document introduced the concept of informed consent and some cardinal principles such as respect for people, justice and beneficence.
- **Office of Human Research Protection:** This office was responsible for articulating the general principles contained in the Hellenistic declaration and the Beaumont Report into law to protect the people involved in research. The key fact to note at this stage is that the protection offered is to the researcher and subjects in research. Some ethical considerations attract heavy penalties when violated by researchers.

Example:

- As a criminologist involved in research on strategies for rehabilitating drug addicts with particular reference to the use of cocaine.
- The research problem involves identifying lower addictive substances that could gradually replace cocaine particularly when participants begin to exhibit withdrawal syndrome.
- The research is conducted in a government social welfare institution.
- The researchers, evaluators and administrative officers are afforded effective protection by military police officers.

- The drug addicts include males and females within the 18-40 years' age range.
- The researchers and evaluators are male within the already stated age range. Females are excused because of the dangers involved in interacting with drug addicts.
- The research involves the use of placebo as replacement for cocaine.
- The addicts are informed that the experiment is guided by the problem of controlling violence in communities.
- Addicts are deceived and tricked into the welfare institution by relatives.

Think out the ethical issues that will arise during this research.

PRINCIPLES OF ETHICS IN RESEARCH

Respect

Beneficence

Justice

3.3 RESPECT.

The first principle of ethics in research is respect. The principle of respect connotes the ventilation of the ability of human beings to make informed decisions provided they have the basic information for such decision making. If as a criminologist you engaged in a study on drug gang wars and insecurity in a particular state. If you decide to use the payment of 30,000 Naira per month to ensure that drug users participate in the study; On one hand, if the participants are told that the essence of the study is to reduce drug addiction in the area, to what extent can the participants make informed decision on whether or not to participate in the study?. On the other hand, how can we make any argument to the effect that the participants volunteered to participate? Consider the behaviour of drug users especially when addiction sets in. if the payment of N30,000 guarantees the purchasing power for drug would the drug users see opting out of the researcher as all alternative. Definitely any researcher may argue that the recruitment's proceeds was coercive.

The next segment of the principle of respect focuses on the protection of the vulnerable. The research problem aids the identification of the vulnerable during

research. This social category is compelled to submit to the requirements as a coping strategy with poverty or other social forces. The vulnerable also includes individuals who are physically or mentally challenged. Autistic teenagers should not have the ability to determine the benefits of participating in a research.

Considering the social matrix in Nigeria heavily punctuated with extreme poverty, unemployment and social disillusionment, applying the principle of respect becomes highly difficult. The researcher tempted to exploit the social conditions in Nigeria during research should remember that the principle applies to respect accorded to participants as well as the researcher.

3.4 BENEFICENCE

The principle of beneficence in research exalts the need for protection from physical, psychological and socio-economic harm. Assuming that during research you require information from your sample on past events and these events have potential of probably frightening them, flash back to these events can cause psychological harm to participants. During research scholars fail to convey the aim of the study to participants. This is done to prevent the exhibition of expected results by overzealous units in the sample. Consequently, the participants will not anticipate any side effects. When these manifest, the victims may not point out the relationship between the experiment and the side effects. The research too, out of deliberate action or ignorance may fail to remedy the situation. There is also the possibility of physical harm from substances and procedure used during research. The use of substance may ignite allergy with serious physical consequences. The procedure may be associated with stigmatization. A participant in drug trail for the management of psychological disorders may be stigmatized as a result of constituting a unit in the sample. The procedure has exposed the candidate to stigmatization associated with mental disorder.

Socio-economic harm could be inflicted on participants if the procedure adopted for a research unveils information personal to units in the sample (HIV status, mental health status etc. which may lead to loss of jobs or exclusion from certain occupations.

3.5 JUSTICE

Some of the experiments conducted by the Germans during the second world war used Jews as subjects. The principle of justice will question the concentration of these experiments on the Jews. Were they the only existing social category them? If the answer is no, why were they subjected to bearing the burden of the experiments alone? The principle of Justice in research ethics proposes that the burden of research should be borne by the appropriate groups and social categories in society. No one group, ethnic nationality or community should be subjected to experimentation. Reflect on the proposal to try COVID-19 vaccines in Africa first.

The United States of America code of ethics are

1. Researchers must endeavor to maintain objectivity and integrity in their research by disclosing their research findings in full and including all possible interpretations of the data (even those interpretations that do not support their viewpoints.)
2. Researchers must safeguard the participant right to privacy and dignity while protecting them from harm.
3. Researchers must protect confidential information provided by participants even when this information considered not to be “privileged” (legally protected as is the case between doctor and patient, and between attorney and client)
4. Researchers must acknowledge research collaboration and assistance they receive from others and disclose all source of financial supports.

4.0 CONCLUSION

What is presented here is not an exhaustive chronicling of research designs. The criminologist is the focus. As a researcher particularly as a student, the elaborateness, time and financial commitments involved in such research designs as panels and time-series designs contrasted group designs etc. makes the cross-sectional survey method most appropriate. It is the responsibility of the researcher to ensure that participants in research are sufficiently briefed to enable them make informed decisions. The researcher also shoulders the responsibility of protecting participants from physical and emotional harm. Lastly the researcher must not let any specified social category bear the brunt of research.

5.0 SUMMARY

Ethics: refer to a set moral principle governing behavior based on what is acceptable or not.

The principle of respect: The principle that enshrines the right of participants to be properly briefed to enable the make informed decisions.

Beneficence: exalts the right to protection of participants from physical and psychological harm.

Justice: the avoidance of the use of a particular social category for researcher.

SELF ASSESMENT EXCECISE

1. Discuss the statement in article 8 of the code of ethics for social sciences.
2. Design a study on detention centers and post-natal care of babies of pregnant inmates. Identify the principle involved and how to safeguard yourself as a researcher.

6.0 A CODE OF ETHICS FOR SOCIAL SCIENCES

Principles

General issues Related to the Code of Ethics

1. The social scientist(s) in charge of a research project is (are) responsible for all decisions regarding procedural matters and ethical issues related to the project whether made by themselves or subordinates (7).
2. Teachers are responsible for all decisions made by their students related to ethical issues involved in research (I).
3. All actions conducted as part of the research should be consistent with the ethical standards of both the home and host community (I).
4. Ethical issues should be considered from the perspective of the participant's society (2).

5. If unresolved or difficult ethical dilemmas arise, assistance or consultation should be sought with colleagues or appropriate committees sponsored by professional associations (2).
6. Any deviation from established principles suggests: (a) that a greater degree of responsibility is being accepted by the investigator, (b) a more serious obligation to seek outside counsel and advice, and (c) the need for additional safeguards to protect the rights and welfare of the research participants (2).

Decision to Conduct the Research

7. Research should be conducted in such a way as to maintain the integrity of the research enterprise and not to diminish the potential for conducting research in the future (3).
8. Investigators should use their best scientific judgment for selection of issues for empirical investigation (I).
9. The decision to conduct research with human subjects should involve evaluation of the potential benefits to the participant and society in relation to the risks to be borne by the participant(s)—a risk-benefit analysis (2).
10. Any study which involves human subjects must be related to an important intellectual question (4).
11. Any study which involves human subjects must be related to an important intellectual question with humanitarian implications, and there should be no other way to resolve the intellectual question (2).
12. Any study which involves human participants must be related to a very important intellectual question if there is a risk of permanent, negative effects on the participants (2).
13. Any study involving risks as well as potential therapeutic effects must be justified in terms of benefits to the client or patient (2).
14. There should be no prior reason to believe that major permanent negative effects will occur for the participants (I).

15. If the conduct of the research may permanently damage the participants, their community, or institutions within their community (such as indigenous social scientists), the research may not be justified and might be abandoned (2).

Conduct of the Research

16. All research should be conducted in a competent fashion, as an objective, scientific project (4).
17. All research personnel should be qualified to use any procedures employed in the project (7).
18. Competent personnel and adequate facilities should be available if any drugs are involved (4).
19. There should be no bias in the design, conduct, or reporting of the research—it should be as objective as possible (4).

Effects on and Relationships with the Participants

Informed Consent

General

20. Informed consent should be used in obtaining participants for all research; investigators should honor all commitments associated with such agreements (10).
21. Participants should be in a position to give informed consent; otherwise it should be given by those responsible for the participant (2).
22. Informed consent should be used if the potential effects on participants are ambiguous or potentially hazardous (7).
23. If possible, informed consent should be obtained in writing (1).
24. Seek official permission to use any government data, no matter how it was obtained (1).

Provision of Information

25. Purposes, procedures, and risks of research (including possible hazards to physical and psychological well-being and jeopardization of social position) should be explained to the participants in such a way that they can understand (7).

26. Participants should be aware of the possible consequences, if any, for the group or community from which they are selected in advance of their decision to participate (1).
27. The procedure used to obtain the participant's name should be described to him or her (1).
28. Sponsorship, financial and otherwise, should be specified to the potential participants (2).
29. The identity of those conducting the research should be fully revealed to the potential participants (2).
30. Names and addresses of research personnel should be left with participants so that the research personnel can be traced subsequently (1).
31. Participants should be fully aware of all data gathering techniques (tape and video recordings, photographic devices, physiological measures, and so forth), the capacities of such techniques, and the extent to which participants will remain anonymous and data confidential (2).
32. In projects of considerable duration, participants should be periodically informed of the progress of the research (1).
33. When recording videotapes or film, subjects should have the right to approve the material to be made public (by viewing it and giving specific approval to each segment) as well as the nature of the audiences (1).

Voluntary Consent

34. Individuals should have the option to refuse to participate and know this (1).
35. Participants should be able to terminate involvement at any time and know that they have this option (3).
36. No coercion, explicit or overt, should be used to encourage individuals to participate in a research project (6).
- 37.

Protection of Rights and Welfare of Participants

General Issues

38. The dignity, privacy, and interests of the participants should be respected and protected (8).
39. The participants should not be harmed; welfare of the participants should take priority over all other concerns (10).
40. Damage and suffering to the participants should be minimized through procedural mechanisms and termination of risky studies as soon as possible; such effects are justified only when the problem cannot be studied in any other fashion (8).
41. Potential problems should be anticipated, no matter how remote the probability of occurrence, to ensure that the unexpected does not lead to major negative effects on the participants (I).
42. Any harmful aftereffects should be eliminated (4).
43. The hopes or anxieties of potential participants should not be raised (I).
44. Research should be terminated if danger to the participants arises (3).
45. The use of clients seeking professional assistance for research purposes is justified only to the extent that they may derive direct benefits as clients (I).

Deception

46. Deceit of the participants should only be used if it is absolutely necessary, there being no other way to study the problem (3).
47. Deception may be utilized (I).
48. If deceit is involved in a research procedure, additional precautions should be taken to protect the rights and welfare of the participants (2).
49. After being involved in a study using deception, all participants should be given a thorough, complete, and honest description of the study and the need for deception (5).
50. If deception is not revealed to the participants, for humane or scientific reasons, the investigator has a special obligation to protect the interests and welfare of the participants (I).
- 51.

Confidentiality and Anonymity

52. Research data should be confidential and all participants should remain anonymous, unless they (or their legal guardians) have given permission for release of their identity (15).
53. If confidentiality or anonymity cannot be guaranteed, the participants should be aware of this and its possible consequences before involvement in the research (4).
54. Persons in official positions (studied as part of a research project) should provide written descriptions of their official roles, duties, and so forth (which need not be treated as confidential information) and be provided with a copy of the final report on the research (I).
55. Studies designed to provide descriptions of aggregates or collectivities should always guarantee anonymity to individual respondents (I).
56. "Privacy" should always be considered from the perspective of the participant and the participant's culture (1).
57. Material stored in databanks should not be used without the permission of the investigator who originally gathered the data (I).
58. If promises of confidentiality are honored, investigators need not withhold information on misconduct of participants or organizations (1).
59. Specific procedures should be developed for organizing data to ensure anonymity of participants (I).

Benefits to Participants

60. A fair return should be offered for all services of participants (I).
61. Increased self-knowledge, as a benefit to the participants, should be incorporated as a major part of the research design or procedures (1).
62. Copies or explanations of the research should be provided to all participants (2).
63. Studies of aggregates or cultural subgroups should produce knowledge which will benefit them (I).

Effects on Aggregates or Communities

64. Investigators should be familiar with, and respect, the host cultures in which studies are conducted (1).
65. Investigators should cooperate with members of the host society (I).
66. Investigators should consider, in advance, the potential effects of the research on the social structure of the host community and the potential changes in influence of various groups or individuals by virtue of the conduct of the study (I).
67. Investigators should consider, in advance, the potential effects of the research and the report on the population or subgroup from which participants are drawn (I).
68. Participants should be aware, in advance, of potential effects upon aggregates or cultural subgroups which they represent (1).
69. The interests of collectivities and social systems of all kinds should be considered by the investigator (1).

Interpretations and Reporting of the Results of the Research

70. All reports of research should be public documents, freely available to all (4).
71. Research procedures should be described fully and accurately in reports, including all evidence regardless of the support it provides for the research hypotheses; conclusions should be objective and unbiased (14).
72. Full and complete interpretations should be provided for all data and attempts made to prevent misrepresentations in writing research reports (6).
73. Sponsorship, purpose, sources of financial support, and investigators responsible for the research should be made clear in all publications related thereto (3).
74. If publication may jeopardize or damage the population studied and complete disguise is impossible, publication should be delayed (2).
75. Cross-cultural studies should be published in the language and journals of the host society, in addition to publication in other languages and other societies (2).
76. Appropriate credit should be given to all parties contributing to the research (9).
77. Full, accurate disclosure of all published sources bearing on or contributing to the work is expected (8).
78. Publication of research findings on cultural subgroups should include a description in terms understood by the participants (2).

79. Whenever requested, raw data or other original documentation should be made available to qualified investigators (I).
80. Research with scientific merit should always be submitted for publication and not withheld from public presentation unless the quality of research or analysis is inadequate (1). Source (Nachmias Chava, F. and Nachmias, D. (1996) pp 90-94)

Unit 4 STUDY LOCALE AND PROBLEMS ENCOUNTERED. CONTENTS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
 - 3.1 Study locale.
 - 3.2 Geographical location
 - 3.3 Socio political characteristics
 - 3.4 Economic activities
 - 3.5 Social organization
 - 3.6 Problems encountered
 - 3.7 Typical problems.
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 References

1.0 INTRODUCTION

Study Locale; In the social sciences, particularly in criminology research, the area in which research is conducted offers crucial information which if properly put in perspective illuminates the value of the findings. Most students focus on the geographical identity of the area. This is good information, however, there are social and cultural characteristics of the area that can be infused into the findings and justification of findings. We shall also examine the issues of problems encountered during research.

2.0 OBJECTIVES

At the end of this unit, you will appreciate the role of study locale in authenticating your research as a result of the socio-cultural factors which aid understanding of the units in the sample and the findings of your study.

3.0 MAIN CONTENT

3.1 STUDY LOCALE

In the social science, the location of the study provides information which helps the researcher and the users of the results of the research understand critical aspects of the work. A study locale reveals the location of the study not only the extent to which physical identify in conferred on the area but also the implications of the bordering area and the internal socio-economic and political dynamics for the problem being studied.

It is therefore necessary to organize the study local under themes that project the area of the study in relation to the nature of the study problem.

3.2 GEOGRAPHICAL LOCATION

The geographical location is outlined using the national or regional map. Use a map on a page with colours that distinguish the study area from others. State the communities, regions, geo-political zones or countries that share boundaries with the study area. If there are characteristics of the border areas which could be used in explaining the problem of the study, highlight them. For example, a study on the prevalence of commercial sex work in Port Harcourt will require such facts as (1) some of the commercial sex workers come from neighbouring states to exploit

the opportunities of the presence of oil and oil servicing organizations and their employees.

Kidnapping in Aba, Abia State was difficult to contain because of proximity to Etche in Rivers State, a community with huge farm lands far from communities. Kidnappers had stations in those farms and forests. The essence of the geographical location is to highlight factors which aid the forming of relationships or associations in the study.

3.3 SOCIO-POLITICAL CHARACTERISTICS

In discussing the above, the political and administrative structures in the study area are discussed. Many problems in societies are rooted in the use of power and the allocation of resources. The political structure and its relationship with external political structures may illuminate some associations in the study. The fight against corruption in Nigeria may derive impetus from the activities of INTERPOL or governments in other countries. Certain aspects of the political organization in the study areas should be brought to the fore depending on anticipated influence on the process of addressing the study problem.

3.4 ECONOMIC ACTIVITIES

Describe the major economic activities of people in the study area. Are they predominantly fisher folks, farmers, migrantherdsmen, civil/public servants etc. There is hardly any study problem that will be solved that will not have effects on the livelihoods of the people. By the same measures there is no set of criminal activities that do not relate with the occupation of people. If for instance we are investigating crime in Internally Displaced Peoples Camps, an understanding of their original means of livelihood in their communities of origin can help identify the dislocation and the adoption of criminal behaviour as coping strategy.

It is therefore important to specify the livelihood of the people and link this to the intervention instigated by the study problem. This may not be used for testing hypotheses. Study locales are significant during discussion of findings. They may be used to explain serendipities or why the finding of a study differs from other findings.

3.5 SOCIAL ORGANIZATION.

By social organization we make reference to patterns of authority in community and family relations. A matrilineal family enables children to inherit from their mother's relatives. A patriarchal family traces descent from males and women become invisible. If any of these societies experience displacement due to natural or human made disasters, plans for establishing camps and resettlement must integrate the social organizational patterns. The various religions in the community could be the basis for some cultural practices. Describe these religions and suggest relationships with some cultural patterns in the study area.

3.6 PROBLEMS ENCOUNTERED

Researchers who objectively conduct field studies during research encounter problems. The essence of mentioning these problems is to reflect the extent to which the research designed strategies to minimize the negative effects of the problems on the study. Researchers do not have any given problems that are copied and pasted during research. Some students will always list time, money and the numerous number of times they had to visit to retrieve questionnaires. These are not problems. Time is at the discretion of the researcher. If you want to spend fifteen years on a Ph.D programme, award yourself the Degree when the fifteen years have elapsed. Universities stipulate minimum and maximum residency for MSc and Ph.D work. Money is necessary for research and should be procured by the researcher.

3.7 TYPICAL PROBLEMS

Change in the weather or wrong timing during a particular season. If a researcher conducts field work involving migrant fisher folks or farmers, during periods of migration, the available population and sample may be reduced. Naturally that will affect the quality of the research. However, a researcher may design alternatives such as going to the new location to continue the field work. This may ensure the problem is minimized.

Language could generate problems during research. The use of such concepts as "fried bean balls" instead of "akara" or roasted plantain instead of "Bole" may require extra interpretation to ensure that every sample unit shares the same

meaning. When such problems are highlighted, the measures put in place to reduce their impact on the study should also be noted.

4.0 CONCLUSION:

when conducting a research, it is important that the socio-cultural peculiarities in the area be highlighted in accordance with the research problem so that the audience may gain added understanding of your work. State genuine research problems encountered particularly during the field work and explain how you moderated their impacts on your study.

5.0 SUMMARY:

Study local: the geographical boundary of your study. This could be a community, state, geo-political zone or region.

Socio-political characteristics: Economic activities: economic activities used by the people to sustain livelihood.

Social organization: Structure of politics, the family and decent system.

Problems encountered: anticipated and unanticipated problems during fieldwork with potential for distorting the study and strategies used by the research to minimize the distortion.

6.0 TUTOR MARKED ASSESSMENT.

1. List three cogent problems you may encounter during a study on the Nigeria police and corrupt bail practices and discuss methods for overcoming them.

2. In what ways can the economic activities of a community in their original place of abode be used to explain high prevalence of crime when they are internally displaced by flood?

7.0 REFERENCES

Mickey L. Burnim, An Evaluation of the Public Service Employment Projects in Florida Created Under Title VI of the Comprehensive employment and Training Act of 1973 (Tallahassee: Florida Department of Community Affairs, 1978), p. 164.

Ritzer, G. (2000) macro sociologist theory Fifth edition. McGraw Hill Boston.

Robert K Merton, *Social Theory and Social Structure*, rev. and enlarged ed. (New York: Free Press, 1968), p. 103.

Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 1970), p. 10.

MODULE 3 SAMPLING AND DATA COLLECTION TECHNIQUES.

GENERAL INTRODUCTION

You have chosen corresponding design for your study considering the study problem you now have a clear vision on the type of data needed to address the study question. Next you must determine the sample and the sampling technique required based on the above you must quickly shift focus to data collection techniques.

LEARNING OBJECTIVES

- Ability to determine sample size from a population frame.
- An understanding of sampling techniques.
- Knowledge of the application methods of each sampling technique
- Identify sources of data
- Choosing appropriate data collection technique.
- Know the strength and weaknesses of each data collection technique and
- Understand the application of each data collection technique.

Unit 1 POPULATION, POPULATION FRAME AND SAMPLE

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Population
 - 3.2 Population frame
 - 3.3 Sample.
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 References

1.0 INTRODUCTION.

CHOOSING A SAMPLE

From my teaching experience, I have observed that students derive the population of any study from the number of copies of the questionnaire printed, distributed and retrieved. Thereafter they produce tables that justify the number of copies of the questionnaire assumed to have been retrieved. You then ask such questions as:

Where did you meet the people you gave the copies of the questionnaire to? How did you select them? How did you determine the sample? How did you ensure the sample is representative of the population?. No meaningful response is given.

- i. A researcher must abinitio establish the population of the study. The population is simply the total number of people within the study area who are qualified to participate in the study.

It is for this reason that most students make reference to the 2006 population census in Nigeria in most of their studies. This is totally wrong. If your study problem is crime and maritime safety in Rivers State, a reference to the population of Rivers State according to the 2006 population will offer little value because;

- The population includes the very young and the very old who are not qualified to participate in the study.
- The population in 2006 is not reflective of the population in 2020.
- Significant percentage of the population in Rivers State do not travel by ship or boat.

A more relevant population should be found in clusters of adults in riverine communities, maritime transport operators, police posts in the communities and where possible members of the criminal gangs in the area. In this case every member of these social categories can participate in the study. This is actual population of the study. All these people share aspects of the characteristics the researcher intends to study. The research problem enables the researcher to identify these characteristics. If a researcher is studying the feeding habits of breast-feeding mothers, the census document will offer little assistance here. The population as determined by the topic will cause the researcher to look for;

- (i) Mothers with babies who are within the age range of 1-6 months, and
- (ii) Mothers who are with babies as stated above who are healthy and are feeding.

Grandmothers without babies, young ladies who do not have babies, and girls within the age range 1-5 years shall not participate in the study. A study population could be

- (i) All former cult members at the University of Port Harcourt
- (ii) All lecturers at the University of Abuja

- (iii) All police officers in a given study area.

3.2 Population Frame

Having identified the population of your study, proceed to procure the population frame. Many researchers do not make reference to the population frame.

This is not proper.

- A record of all the police officers serving in the study area during the period of study
- A list of jamb candidates for a particular year
- A list of all the lecturers as the University of Abuja obtained from the office of the Registrar and
- A list of nursing mothers from the healthcentre in a community

All the above are good examples of population frames. A document specifying budgetary allocations and government agencies can constitute a population frame in a study involving content analysis. If the population is small and accessible the researcher may use the population for the study, otherwise a sample of the population will be required.

3.3 SAMPLE

A sample is a limited subset or material drawn from the population or larger material being used for a study. The characteristics of a sample are;

- It is smaller in size than the population
- It has all the characteristics of the population and
- It is therefore a representation of the population.

A woman who sells wrappers but does not have a shop may decide to keep all her wrappers in the house. Each day she goes out with samples of the wrappers in the house. She obtains the samples by cutting pieces of the wrappers in such manner that ensures all the colors and patterns of each wrapper are reflected on the small piece. The main wrapper consists of six yards of cloth, the sample may measure a few square inches. When prospective buyers see the samples, they appreciate the six yards in the house and probably form a mental picture of clothes made with each wrapper.

We are by implication saying that the woman firstly, got the entire wrapper, secondly, she chose a particular part that reflected the characteristics of the wrapper and thirdly she cut out the piece. This piece is easier to carry about for the purpose of marketing the larger piece.

If your population is the teaching staff of the University of Abuja, that represents the wrapper. The designs on the wrapper correspond with female/male, senior/junior departments, faculties, disciplines of the entire staff. How then do you derive a smaller population that reflects the characteristics of the contents of the list collected from the office of the Registrar?

A sample should have the characteristics of the population. If a sample is not representative of the population from which it is drawn, then the survey findings cannot be used to make generalizations about the entire population (Shepard 1981:39). Comparatively, if the small piece of wrapper does not reflect the colour, design and quality of the bigger one, a buyer may like and pay for the wrapper. However, when the six- yard piece is delivered it will be rejected. A large sample does not necessarily mean better representation. The size of the sample may depend on such factors as source and level of funding and time frame. But it is absolutely necessary that the sample is representative of the population.

4.0 CONCLUSION: A population in a study is made up of all units that are qualified to

be included in a study. A sample is a smaller unit that has all the characteristics of the population. The population frame is usually a document containing the population. It is advisable to systemically select your sample.

5.0 SUMMARY

Population: The totality of the social category or units that qualify to be selected for inclusion into the sample of a study.

Population Frame: A document containing the population of a study.

6.0 TUTOR MARKED ASSIGNMENT

1. Samples do not necessarily need to represent the population. Discuss.
Distinguish between probability and non-probability sampling techniques.

7.0 REFERENCES.

David Easton, "Alternative Strategies in Theoretical Research," in *Varieties of political Theory*, ed. David Easton (Englewood Cliffs, N.J.: Prentice-Hall, 1966), pp. 1-13.

George E. Biles, Alfred A. Bolton, and Bernadette DiRe, "Herman Hollerith: Inventor, Manager, Entrepreneur - A Centennial Remembrance." *The Journal of Management*, 15 (1989) 603-615.

Iwarimie Jaja, D. (2014). *A brief in social Science Research*. University of Calabar Press.

Mickey L. Burnim, *An Evaluation of the Public Service Employment Projects in Florida Created Under Title VI of the Comprehensive employment and Training Act of 1973* (Tallahassee: Florida Department of Community Affairs, 1978), p. 164.

Moser, c. and Kelton, G. (1974) *survey method in social investigation* (Second edition) The English Language book society and Heinemann Educational books Britain.

Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 1970), p. 10.

Unit 2 SAMPLING TECHNIQUES.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
 - 3.1 Random sampling.
 - 3.2 Systematic sampling.
 - 3.3 Stratified sampling.
 - 3.4 Cluster Sampling.
 - 3.5 Multi Stage sampling
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 References

1.0 INTRODUCTION

Sampling.

Here again students confuse issues. They are not able to justify the use of any sampling technique. If you are involved in a study on separated parents and children's academic performance in secondary schools and you use the random

sampling technique to select students from a population frame of all the students in the school a few results may be obtained;

- No student from a home where parents have separated may be found in your sample.
- All your sample may be males or females
- Some members of the sample may come from homes where parents have gone through divorce.

These mistakes arose from a wrong population and wrong population frame. Eventually a wrong sampling technique was used. The end product of the research will be self-fulfilling prophecy. The researcher will claim to have found that children from homes where parents are separated perform poorly in education. A bigger question immediately arises. Where are the children from homes where parents are not separated so we can compare and confirm?

An affective sampling technique will enable a researcher draw a representative sample suitable for the study. The problem of validity and reliability will be minimized.

Techniques for Sampling

Random Sampling Technique

Stratified Random Sampling

Quota Sampling

Multi stage sampling

Snow balling

Non-representative sampling

Purposive sampling

Cluster Sampling

PROBABILITY SAMPLING

3.1 Random Sampling Techniques

- If I have ten apples that I want to give to my students in a class and the class has a population of twenty students
- If I do not want to cut the apples and

- If I instruct the students who get the apples not to share with other students
- I may choose to give the apples to the fair skinned girls in the class and risk being accused of having a soft spot for fair girls (I am a male lecturer)
- I may decide to give the apples to the tall boys and risk the same accusation above
- Assuming I decided to write ten No and Yes on pieces of paper and fold them
- If I instruct the students to pick and all those who picked yes get an apple what will you accuse me of?

Simple random sampling technique offers every one or unit in the population equal opportunity of being selected during research. It is simple to administer it is commonly used during research.

There are a few methods of drawing a sample on random basis.

- (i) Lottery type: What I described above is an example of the lottery method. Those who selected yes will be included in the sample. Those who selected no will be excluded.
- (ii) Tippets number or computer program

This is a convenient way of effecting random selection. A set of random numbers arranged so that the digit 0, 1.....9 appears at the same frequency. Each unit in the population a given a member. The researcher now reads the table of random digits at some random beginning point. Each digit in the table is read at random in any direction. Once a digit on the table of random digits corresponds with number allocated to a unit in the population the unit is selected. This is repeated until the sample is derived.

3.2 Systematic Sampling

Systematic sampling involves the selection of every kth sample unit of the population. Assuming we have a population of 10, 000 students and our sample is 100 students we may decide to select every hundredth student after numbering them. The table of random digits may be used for the first selection. If the 16th person was selected first subsequently we shall have 16, 116, 216, 316, 416, 516 etc. This is simpler than the simple random sampling technique. Once the first sample is determined the subsequent process can be learnt and practiced easily. It makes the management of large populations easy.

3.3 Stratified Sampling Technique

Refer to the staff list from the University of Abuja. Assuming there are 600 male teaching staff and 400 female teaching staff. The use of simple random sampling technique may provide a sample of 60 females and 40 males to give us 100. The sample does not reflect the population. The stratified sampling technique can help a research avoid the error. This sampling method ensures that different groups are adequately represented in the sample. This enhances the level of accuracy when estimating parameters for establishing relationships. The researcher can use stratified sampling techniques in such a way that information about the population is expressed in the form of groups such that the elements within each group are more alike as elements in the population as a whole.

For example, if we go back to the population of 10,000 where 6000 are males and 4000, females a stratified sample of 600 males and 400 females will ensure better representation.

When we divide the population into homogenous strata, we ensure that the division is related to the study problem. It is not in the interest of the researcher to over use this technique. For example, in studying pattern of crime in a multiethnic city in Nigeria and income correlates with occupation, age, gender and ethnicity. The researcher may stratify on all the above indicators. However, the value of stratified sample will diminish. We are better off using indicators that represent two or more of these mentioned above. For example, social status may stand for income and education.

3.4 Cluster Sampling

In using cluster sampling technique, the researcher will first identify large groupings called clusters. Thereafter samples are selected from the large groups using simple random or stratified sampling technique. If a researcher is studying street hawking and incidence of rape in Port Harcourt, the scholar will observe that there are four major cluster areas where street hawking take place, Mile one market, Mile Three market, Gborokiri market and Bori camp Junction. These are clusters where we have a concentration of street hawkers. Commercial sex work

assumes the same pattern there are clusters where men and women engage in the process. From each cluster the researcher uses other sampling methods.

3.5 Multi-Stage Sampling

Assuming we want to conduct an opinion poll on how voters intend to vote in Nigeria, we could use such states that have a mix of the Nigeria ethnic groups. This could be ascertained from previous research on voting patterns. This is the first stage in selecting the sample.

Multi-stage implies selecting a sample from a sample. The second stage will then involve the choosing of individual respondents from the states which have characteristics of other states in terms of ethnic background and party support. From the few states the sample population will be drawn.

4.0 CONCLUSION

In probability sampling each unit or individual in the sample was selected with a method that isolates the researcher's influence.

5.0 SUMMARY

Simple random sampling technique: offers every unit in the population equal opportunity of being selected.

Systematic sampling: involves the selection of every kth sample unit from the population.

Stratified sampling technique: use for accommodating differences in the population according to age, rank, qualification etc.

Cluster sampling: identify the population of the study in clusters where the study problem is concentrated.

6.0 TUTOR MARKED-ASSIGNMENT

1. What is simple random sampling?
 - a. How will you apply this technique in a study on drug use and violence in a detention Centre?
2. Identify the advantages of the stratified sampling technique compared to the random sampling technique.

- a. Using a study that will require the use of cluster sampling show how you will apply the technique.

7.0 REFERENCES

Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.

Marvin Harris, Josildeth Gomes Consorte, Joseph Lang, and Bryan Byrne, "Who Are the Whites?: Imposed Census Categories and the Radical Demography of Brazil," *Social Forces*, 72 (1993): 451-462.

Spencer, M. (1976) *foundation of Modern Sociology* Prentice Hall Inc. New Jersey.

Talcott Parsons and Edward A. Shills, *Toward a General Theory of Action* (New York.: Harper & Row, 1962), pp. 50-51.

UNIT 3 NON-PROBABILITY SAMPLING

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Non-probability sampling
 - 3.2 Convenience sampling
 - 3.3 Purpose sampling
 - 3.4 Quota sampling
 - 3.5 Snow balling
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor marked Assessment
- 7.0 References

1.0 Introduction

In this unit we shall examine sampling techniques where the researcher can influence the selection of the sample.

3.1 Non-Probability Sampling

Generally, a study is said to be objective when the researcher does not influence the research process. However, in non-probability sampling, the researcher is allowed to influence the sampling purposely either for reason of convenience or the nature of the sample.

3.2 Convenience Sampling

When researchers choose whatever samples are readily available for a study this is referred to as convenience sampling. A primary school teacher may therefore select a sample from his/her class. A university professor may select a class of post graduate students. In a study on police vehicle particulars and human rights

abuse in Nigeria, the research may go to police “check point” and interview the first 30 drivers.

3.3 Purpose Sampling

This may be expressed in two ways. First a study on Armed Robbery and Economic night life in Abuja should require a sample comprising business operators, the police and members of the public. If the police commissioner is involved, he does not have to compete with anybody because there is only one police commission. The researcher will purposely select this unit to be part of the sample.

Second, a researcher may select sampling units subjectively. In this case the scholar selects in an attempt to derive a representative sample of the population. The subjective judgement of the researcher informs the selection of each unit.

3.4 Quota Sampling

The aim in using this sampling techniques is to ensure that the sample is as similar to the population as possible. Let us assume that the proportion of some ethnic groups in Abuja is as follows; Igbo 30% Hausa 50% Yoruba 20%, the sample representation of the ethnic groups will correspond to the above. The same principle applies during interviews. Age, sex, marital status will be use to derive sampled from upland and riverine to the effect that 5 males 5 females, 5 married 5 single from riverine and upland will be included in the sample.

3.5 Snow Balling

A study of the life styles of “Hit men” of the cult groups in a University may not require the random sampling technique. However, we may identify one person and with his cooperation, we build up a group. The first contact will link us to another because they have already established a network of personal contacts. From one sample unit, we snowball to another.

8.0 CONCLUSION

In non-probability, sampling the researchers choice determines the inclusion of any unit in the sample. The technique is subjective. It however has value in certain types of study.

9.0 SUMMARY

Non probability sampling: The investigator exercises the right to determine how units in the sample are selected.

Convenience sampling: The convenience of the researcher determines the choice of sample.

Purposive sampling: The units included are purposely chosen.

Snow balling: The researcher identifies one unit of sample and uses this as a link to another until sampling is completed.

6.0 TUTOR MARKED ASSESSMENT

1. List and discuss three study designs where purposive, convenience and snow ball sampling will be adopted.

7.0 REFERENCES

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). Sociology. The McGraw Hill Companies Inc.

Haralambos, M. & Holborn, M, (2000) Sociology and Perspectives. Fifth Edition. Harper Collins Publisher limited.

Howard S. Becker and Blanche Geer, “Participant Observation: The Analysis of Quantitative Field Data” in Field Research, ed. Burgess, P. 245.

Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart and Winston, 1968); see also E. Y. Babad, J. inbar, and R. Rosenthal, “Pygmalion, Galatea and the Golem: Investigations of Biased and Unbiased Teachers,” Journal of Educational Psychology, 74 (1982): 459-474.

UNIT 4 SAMPLE SIZE DETERMINANTS.

1.0 Introduction

- 2.0 Objectives
- 3.0 Main content
- 3.1 Sample size determinants
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor marked Assessment
- 7.0 References

1.0 Introduction

There are factors which help researchers to determine the sample size in any research, these are considered below.

2.0 Objectives

- a) knowledge of determinants of sample size
- b) ability to apply determinants

3.1 SAMPLE SIZE DETERMINANTS

In every research, the nature of the research problem and the experience of the researcher influence the size of the sample. There are however, some other factors which may be taken into consideration while determining the size of the sample. These include:

SAMPLING METHOD: The use of random sampling requires a fairly large population. Statistical regularity only works when we have a large unit in the sample. If a sampling technique like the stratified method is chosen, reliability can be achieved in a smaller number of units.

CASES REQUIRED

The number of cases required to effectively address the research problem affects the size of the sample. If the geographical spread is wide, there are chances that the sample unit will be large.

EXAMPLE 1:1

Assuming you are doing a research on Drug Abuse and Juvenile Delinquency in Niger Delta, Niger Delta is made up of nine states. First a sample of representative states will be determined, average of three states. The size of the sample will be correspondingly larger than the same study within a state. There may be instances

where the size of the sample will be enlarged to accommodate attrition. If it is anticipated that the rate at which sample units may decline to offer information, the researcher may increase the sample so that attrition will not distort the sample.

THE QUESTIONNAIRE USED

The nature of the research will to an extent require question items which in turn affect the size of the questionnaire used. Another factor is the complexity of the questions. There are questions which necessitate reinforcement and validation questions all these will make the size of the questionnaire bigger. When the instrument is made of large number of pages, a large sample will only complicate issues during the administration. It is therefore advisable to use smaller sample units if the instrument will be properly administered.

LEVEL OF ACCURACY: Some criminologists assume that the more sample unit in a study the better the chances for obtaining sufficient results. A similar case is the recent assertion by the World Health Organization that the more countries participate in COVID-19 trials, the sooner a vaccine will be found. On many occasions research proposals are rejected because of the smallness of the sample. Larger samples do not guarantee higher level of accuracy in research. A sample may be small, provided it is logically selected, it will yield accurate results. We are not implying that large sample are useless. What is most important is the scientificness of the sample method. Students engaged in research may not have capacity to manage large samples. Accuracy is very important and is better achieved through expertise in sampling.

RESOURCES AVAILABLE:

Here we make reference to material and human resources required for a study. Students are required to complete their research report within the stipulated time. Grants for research incorporate a time schedule. Individually sponsored researches do not span through years. There is also the issue of remuneration for research assistants, during training and feeding and accommodation during research. When all the above are put into consideration, the researcher projects appropriate sample.

NATURE OF THE STUDY

If you propose a study on kidnapping and Economic Welfare of Families under Military and Civilian Administrations in the South of Nigeria, the comparative nature of the study will influence the size of the sample. The nature of the study may require prolonged data collection and subsequently the size of the units.

COMPOSITION OF SAMPLE

If the population is homogenous, a smaller sample may yield reliable results. If, however the population is heterogenous, a larger sample will be needed to ensure adequate representation.

STRATIFICATION

If the number of classifications is many the sampling technique should ensure that each stratum is properly represented. If a researcher is not careful some strata will either be over represented or not represented at all. Sample should represent the population of the study otherwise errors will occur.

4.0 CONCLUSION:

There are several factors that can help the researcher decide the size of the sample beyond the use of a mathematical formula. They are as listed above.

5.0 SUMMARY

Sample size determinants: Factors that may be taken into consideration when deciding the size of a sample in a study.

6.0 TUTOR MARKED ASSIGNMENT

1 List and discuss five determinants of size of sample.

7.0 REFERENCES

Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in Field Research, ed. Burgess, P. 245.

Komblum, W. (1994) 3rd (ed). Sociology in a changing world. Harcourt Brace College publisher.

Robert K Merton, Social Theory and Social Structure, rev. and enlarged ed. (New York: Free Press, 1968), p. 103.

Udofia, E.P. (2003). Fundamentals of Social Science Statistics. Gramma-Rays Publishing, Uyo.

MODULE 4 DATA FOR RESEARCH

General Introduction.

Emile Durkheim was one founding father of sociology who pioneered the use of social facts expressed in the form of statistics for studies in sociology. When he studied suicide as a social phenomenon, his point of departure was the shift of focus from those who committed suicide and their characteristics to its prevalence under certain social conditions. Statistics on the rate of suicide became an independent variable that was measurable. Data can be defined as it is Talcott Parsons which refers to it as functional prerequisite for research. It is data that converts variables through their indicators to data used for measuring relationships. Data are critical in any research in criminology. Police records prison records, road accidents records all constitute data that can be used during research. Some data exist others are generated during research. In this unit we shall discuss types and sources of data for research.

UNIT 1 POPULATION AND SAMPLE

1.0 Introduction.

2.0 Objectives.

3.0 Main Content.

3.1 Primary and secondary data.

3.2 Questionnaire

3.3 Constructing a questionnaire.
3.4 Advantages and disadvantages of the questionnaire method.
4.0 Conclusion
5.0 Summary
6.0 Tutor marked Assessment
6.0 References

1.0 Introduction

Data collection is very important in any research. If the wrong data are collected validity and reliability will be compromised. The module addresses the issue of data collection along with the instruments required. Thereafter we shall study the theoretical issues in criminology.

2.0 Objectives

The unit equips students with

- Knowledge of the two major sources of data during research.
- Ability to select appropriate technique for data collection.
- Knowledge to the advantages and disadvantages of each technique

Types of Data

There are two types of data used during research. They are as follows;

- (a) Secondary data and
- (b) Primary data

3.1 Secondary Data

There is no research that could be conducted in criminology that should be absolutely new to the extent that there exists no previous literature that is related or relevant to it. In the social sciences scholars stand on each other's shoulders. We build knowledge in partnership and make reference to those scholars who laid the foundations for studies in particular areas. Their works are found in libraries, the National office of statistics records department of governmental and Non-Governmental Organization (NGOs). The data may not necessarily be in the form

of written materials, works of art form part of data. Oral tradition particularly those preserved electronically can be collected as data during research.

Primary Data

This is data generated by the researcher during field work. They are formulated by identifying the indicators of the variables in a study. For example, a study on socioeconomic inequality and gender -based violence will rely on the indicators of socio-economic inequality such as income, level of participation in decision making level of education etc. Turning to gender -based violence, the indicators could be rape, wife battering, and starvation. The question that enable us collect data on the prevalence of the indicators also provide data that are appropriate for the study.

The questions may be administered as a questionnaire, interview, observation or discussion. All the information that the researcher collects, using standardized methods form the primary data in research.

Methods of Data Collection

Questionnaire: A questionnaire is a set of written questions used by a researcher to collect information from participants. If the questionnaire is administered by the researcher, it assumes the structured interview

Data and Data Collection

To test hypotheses, do content or descriptive analysis, social scientists need data. Data includes statistics, interview results, and responses from questionnaires, existing literature and other pertinent information. The choice of the data to be collected depends on the identified indicators or variables and concepts of the research.

3.2 Questionnaires

(Shephard 1981:41). The questionnaire contains pre-set questions which is administered on a sample population in most cases, to elicit quantitative data.

should be significantly more complex in appearance and expressions used. This unfounded mind frame may render data collected unreliable and invalid.

The first rule in constructing a questionnaire to frame your questions in such a manner that no one asks “what do you mean”? Consider the sample of the study in terms of level of education and use corresponding language to convey meaning effectively. Words used should convey the same meaning to all the participants. Next, long questions have the propensity to divert attention or confuse the respondent. Respondents may abandon the questionnaire when they require unnecessary effort to understand the questions.

Furthermore, every sample in a research has social status. Avoid questions which tend to reduce the social status of respondents. By the same measure, do not over rate your respondents. Responses from university lecturers, a professor, may not yield superior information compared to responses from non-teaching staff of the same university. Finally avoid leading questions that confirm what you have in mind and be careful in providing space for responses. Where you offer options for response, ensure that every relevant response is included.

Other types of Questionnaires

Unstructured Questionnaire

This type of questionnaire contains relevant questions which are not set in a particular order. Fluidity is the norm. Questions may be re-arranged in accordance with the results of the interaction with the respondent. There is flexibility as the interviewer and the respondent share meaning.

Structured Disguised Questionnaire

The questions in the schedule do not make what is being measured obvious to the respondent. This enhances objectivity.

Mail Questionnaire

Before the advent of Email, mails were sent through the post office. Social scientists then sent questionnaires to respondents by mail. To facilitate the return of the questionnaires stamped envelopes were enclosed. E-mail has popularized this method of administering questionnaire during surveys. Many of us receive

mails from banks, insurance companies and other cooperate bodies seeking the evaluation of their services. This model is reformed to as mail questionnaire.

When the sample is a study consists of a large population, it is cheaper and more convenient technique for collecting data. The method is also used by government parastatals to collect information on health, politics and other social issues. The mail questionnaire is the most efficacious impersonal form of data collection.

3.4 ADVANTAGES

- We, have already noted that mail questionnaire becomes necessary when the population is large: accessibility would constitute a huge problem. Mail questionnaire assures accessibility at minimal cost.
- When we use research assistants to administer questionnaires, their personal characteristics, variability in their skills and diligence may infuse different levels of bias. To avoid this the mail questionnaire is used. The social interactions between the interviewer, and interviewees along with unpredictable system outcomes are replaced with a mail system.
- If you are a criminologist seeking to understand the behaviour of males who seek casual sex from commercial sex workers, some of the questions you will ask may certainly amount to invasion of privacy more than personal interviewers.
- Mail questionnaires allow respondents to exercise full consideration of answers before selecting any. The period for this is limited during personal interviews. Some respondents may even consult others to be sure that they have selected the right option.

DISADVANTAGES

- Response rates are higher when personal interviews are adopted. Many respondents many out of premonition fail to respond accordingly.
- In-depth information may be lost by using mail questionnaire. Mail questionnaires require very simple language and clear instructions so that understanding will be compared. In this way over simplification may lead to the collection of average data.

- When researchers use much questions and responses are taken as given. There is no opportunity for probing for details that are not clearly stated.
- If a bank manager sends out referee forms to those selected by applicants for job opportunities, how will the manager ensure that the bearer of the names actually filled the referee forms?.Some officials give questionnaires to theirSecretaries to fill. Parents may shift the responsibility to their children. In mail questionnaires, it is not possible to say who actually fills the questionnaires. Despite these shortcomings, the mail questionnaire remains an effective tool for data collection involving large categories of people.

4.0 CONCLUSION

Questionnaires are commonly used in during research especially in conducting surveys. Most of the studies you will be engaged in will require this method of data collection.

5.0 SUMMARY

Primary data-data collected during the field work.

Secondary data -existing data used during research.

Questionnaire- A set of questions compiled for a sample to provided information by answering the questions.

6.0 TUTOR MARKED ASSIGNMENT.

1 Define questionnaire and distinguish between open ended and closed ended questionnaires.

2. Identify and discuss the strengths and weaknesses of the questionnaire method of data collection.

7.0 REFERENCES

Mueller et al., Statistical Reasoning in Sociology, p. 248.

Ritzer, G. (2000) macro sociologist theory Fifth edition. McGraw Hill Boston.

Spencer, M. (1976) foundation of Modern Sociology Prentice Hall Inc. New Jersey.

Thorsten Sellin and Marvin E. Wolfgang, *The Measurement of Delinquency* (New York: Wiley, 1964).

Warren E. Miller et al., *American national Election Studies Data Sourcebook, 1952-1978* (Cambridge, Mass.: Harvard University Press, 1980).

UNIT 2 INTERVIEW METHOD

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Understanding the use of interview method
 - 3.1 Types of interview
 - 3.2 Focused interview
 - 3.3 Advantages and disadvantages of the interview method
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor marked Assessment
- 7.0 References

1.0 INTRODUCTION

2.0 OBJECTIVES

3.0 MAIN CONTENT

3.1 INTERVIEWS

An interview is an interaction session where verbal communication is used by a researcher to elicit information from a sample unit or population. There are two types of interview structured/formal and unstructured/informal. A completely structured interview is simply a questionnaire administered by an interviewer who is not allowed to deviate in any way from the questions provided (Haralambos and

Holborn 2000:1003). What makes the interview structured is that there is a list of questions provided and sometimes guides are given on the recording of responses. The interviewer goes through the same list of questions with each sample unit.

In formal interviewing, the questions that are asked, their sequence and wording, are worked out before hand and one aims to have the interviews conducted in a uniform way (Moser and Kalton 1974:96). In informal interviewing, the conduct of the interview is to a large extent determined by the interviewer and the respondent. The interviewer simply encourages the respondent to talk about the subject under investigation. There are no questions, and usually no pre-determined framework for recording answers. The interviewer confines himself to elucidating doubtful points, to rephrasing the respondent's answers and to probing generally (Moser and Kalton 1974: 297).

Informal interviews are more or less focused normal conversation which develops naturally with the researcher merely directing so that the conversation focuses on the area of research. The choice between the use of formal and informal methods depends on character of the survey problem and the use to be made of the results.

These are other type of interview discussed here as follows:

3.2 Focused Interview

- There are circumstances that would warrant a criminologist to want to gather information from a group of people who have shared a particular experience in the past. For instance, "hit men" of gangster groups share the experience of eliminating people condemned by gangs. This forms the basis for focused interview..
- Situations analyzed by the researcher prior to the interview are used to structure the interview.
- Lastly an interview guide providing topics relevant to the hypotheses of the study moderates the interview process.
- A criminologist can use the focused interview methods to gather details of private reactions, specific emotions, attitude, knowledge etc the investigator can utilize from the prior analysis of the situations to note inconsistencies,

misinterpretation and omission of article that is headed to answer a research question.

3.3 DISADVANTAGES OF PERSONAL INTERVIEW

Less Economical

The cost involved in personal interview is sometimes prohibitive. At the levels of developing the instrument, selecting research assistants, to the field with the attendant transportation, accommodation feeding and other contingencies, costs build up. After the fieldwork further cost are occurred during audio recording and transcription being.

Anonymity Compromised

In criminology, anonymity is very crucial more people do not feel comfortable delving into their past criminal activities. Unlike the mail questionnaire face to face interaction takes place. There is the fear that information given will be deliberately or mistakenly devolved. The interviewer will need either the names addresses or telephone members of respondents to establish contact with them. This seriously erodes anonymity. It is very difficult to exclude the possibility that the interviewee may be threatened or intimidated by interviewers who have negative or volatile social grace.

Interviewer Bias

Personal interview entails flexibility in the interview process. Most times, the interviewers personal bias and influence affect the interaction process. There is no standardized scheme for data collection within the context. This renders the process prone to asymmetrical inter-subjectivity where the interviewer assumes higher social status and give leading questions that influence the response of interviewees thus is difficult, to guarantee objectivity during personal interview. Verbal communication biases may be controlled. Other non-verbal communication biases may affect the interview process negatively.

3.4 Advantages

Rigidly is not a characteristic of the personal interview method of data collection as it is the case of mail questionnaire the research problem determines the nature

of the interview thus: structured to unstructured. During the interview, interviewers are permitted to probe further for more detailed information flexibility is the word.

Situation Control

Ample opportunities permit the researcher or interviewers to moderate interviews by making decisions on who qualifies to be interviewed, where and when the interview will be conductive. The orders in which the interview questions may be taken may also be decided by the interviewers.

Improved Response Rate

Unlike the case of mail questionnaire, the response rate in personal interview is relatively high. This is because mutually beneficial arrangements can be made to ensure the interviews hold. The interviewer secures the data and does not have to wait for mails.

Adequate Information

Mail questionnaire and personal interview require simplicity and lucidity in language. However, personal interview has the advantage of ability to expand and cover areas that were not even anticipated. Researchers' therefore acquire fuller information when using personal interview.

4.0 CONCLUSION:

The interview method of data collection involves face to face interaction. The outcome of any interaction process is hard to predict. This renders this technique precarious. It requires training and skill acquisition to be effective.

5.0 SUMMARY

Interview: An interaction session during which an investigator obtains verbal information from a sample.

Focused interview: Technique for collecting data from a group that has shared an experience.

6.0 TUTOR MARKED ASSIGNMENT

1. The disadvantages of using the interview method outweighs the advantages. Discuss.
2. Distinguish between formal and informal interview.

7.0 REFERENCES

- Emile Durkheim, *Suicide* (New York: Free Press, 1966). Originally published 1897.
- Ervin Goffman, *Asylums* (Garden City, N.Y.: Doubleday, 1961) pp. ix-x.
- Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.
- Leo A. Goldman and William H. Kruskal, "Measure of Association for Cross Classification." *Journal of the American Statistical Association*, 49 (1954): 732-764.
- Michael J. Robinson "Public Affairs Television and the Growth of Political Malaise: The case of 'The Selling of the Pentagon,'" *American Political Science Review*, 70 (1976): 409-432.

UNIT 3 OBSERVATION

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Participant and Non-participant
 - 3.2 Observed behavior
 - 3.3 Recording observation
 - 3.4 Strengths and weaknesses of observation method
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

1.0 INTRODUCTION

Observation

Most of what we acquired from the past in the form of scientific knowledge from scientists in such fields as biology, physics, astrology and other natural scientists are results of careful observation. Systematic observation equally plays a significant role in the social sciences. In strict sense, observation implies the use of the eyes rather than of the ears and the voice. The Concise Oxford Dictionary (In Moser and Kal 1974:245) defines observation as accurate watching and noting phenomenon as they occur in nature with regard to cause and effect or mutual relations.

In the social sciences, the concept has wider implications. Sometimes it may involve participating in the research problem, sharing in the life and activities of a community and at the same time observing, interviewing, conversing and recording what is going on around. Technological development has facilitated observation. Tape recorders and cameras and the social media can be used to observe with minimal intervention.

3.1 Participant Observation

With this method, the observer joins in the daily life of the group or organization he is studying. He watches what happens to the members of the community and how they behave and he also engages in conversations with them to find out their reactions and, interpretations of the events that have occurred. He studies the life of the community as a whole, the relationship between its members and its activities and institutions (Moser and Kalton 1974:249).

Non-Participant Observation

All surveys entail certain forms of observation. In non-participant observation or detached observation, the researcher observes what is going on without getting involved in the activity being studied. A student studying Health Safety and Environment (HSE) practices in an oil company visits the organization to collect data maybe using questionnaires and interviews. While this is going on, the student makes observations that may form part of the data that will be analyzed. This form observation is non-participant.

3.2 TYPES OF BEHAVIOUR OBSERVED

Verbal Behaviour: The variables frustration and aggression are closely related particularly in criminology. A researcher interested in explaining the specifics of this relationship can observe a body and verbal expressions which act as response to frustration.

Non-Verbal Behaviour: Motor expression amongst humans and animals convey meanings associated with specific cautions. Social scientists use observation of body movements to record indices of emotions such as anger, sadness, happiness fear, surprise etc. Observation of body movements can be used to substantiate statements and actions by the sample.

Special Behaviour: The special behaviour of humans can serve as an analytical tool in research. A criminologist observing an individual assumed or pretending to be mentally challenged can deduct from the manner that the subject organizes his/her space, the true state of his/her mental health. A group of drug peddlers pretending to be mentally deranged persons may be uncovered by a

criminologist through the structure of the physical space as organized by the subjects.

Extra Linguistic Behaviour

Extra linguistic behaviour refers to such linguistic characteristics as pronunciation peculiarities, rate of speaking, learnedness etc can provide valuable data during research. If as a criminologist you want information on the ethnic background of someone who has committed crime, pronunciation presents itself as a solution. We carry social maps of pronunciations associated with Delta State, Bayelsa State, Igbo, Yoruba, Hausa etc.

Recording Observation

Recording observation is critical if the full benefits of the method of data collection is to be realized.

Time Sampling: This technique is used for grouping samples into units to be observed differently. A study on administration and riots incidences in detention centres may involve the observation of these units.

- a) Senior administrative officers.
- b) Prison wardens
- c) Prisoners and
- d) Other staff (cooks, cleaners etc.)

The research will schedule the observation of these units in a systematic manner to ensure proportionate representation of a defined population of behaviour. The research may stratify the units according to hour of the day and day of the week.

Individual Sampling. This method is used by a researcher to select individuals in the sample for observation. Let us assume that you are conducting field work during a research on: Behaviour patterns and vulnerability to rape among female hawkers in Abuja. You may select a female in the sample and record all behaviours and critical events involving that individual for a specified period of time. Thus, every 45 minutes, a different female will be chosen and observed.

In the techniques above, the researcher should develop a coding technique. Otherwise the scholar will collect a bundle of data that will not be amenable to statistical categorization. Thereafter, the data are expressed numerically and quantified. The inductive or deductive methods of coding may be used. In In deductive coding, a conceptual definition is used to construct indicators of behaviour to be observed.

In applying the inductive method, the investigator selects indicators at the first stage of data collection and suspends the identification of definitions. This is done when a pattern emerges. It is very important to provide for specific aspects of behaviour to be observed and format as finite sets of categories so that every unit of behaviour observed is classified.

3.3 STRENGTHS AND WEAKNESSES OF OBSERVATION METHOD

STRENGTHS

- a) This data collection method affords the experimenter to observe complex interactions, processes and change in a natural setting. A criminologist studying initiation ceremonies of secret cults will want to observe the process as closely as possible.
- b) In laboratory observation, the researcher exercises effective control over intrinsic and extrinsic variable thereby increasing the value of inference.

WEAKNESSES

- a) When Elton Mayo was conducting the Bank Wiring experiment, he wanted to study the relationship between working conditions and workers output. He observed that whichever stimulus was introduced or removed, output increased. He had separated a small experimental group that became aware that it was under scrutiny. The group reacted by raising output at each noticeable change. This is referred to as demand characteristics. This is the process triggered by the attention accorded the observed group by the researcher. The group responds preempting the researcher by producing the changes assumably demanded by the investigator.

b) Experimental Bias.

An investigator may accidentally convey his expectations to a group under observation. By this, the researcher distorts the behaviour of the group. Observed behaviour will no longer be objective. In the first case above, the group anticipated the motives of the researcher. Here, the expectations are revealed. The use of electronic equipment and multiple observers may reduce the distortion associated with experimental bias.

c) Measurement Artifacts.

During observation, scholars use such electronic equipment as cameras, audio recorders, CCTV etc. These may introduce bias into research. Drivers in Britain now know where speed limit cameras are mounted. They exceed the speed limit when out of coverage. At the approach to a camera post, they return to the speed limit. Measurement artifacts can cause the observed group to bias results.

4.0 CONCLUSION: The method enables us to explain what is by observing it. It may be done in a laboratory or in a natural setting.

5.0 SUMMARY

Observation: A technique used for studying behaviour as it occurs by using our ears and eyes.

Participant observation: The investigator is a participant in the problem being studied.

Non-participant observation: The research is not part of the population of the study.

6.0 TUTOR MARKED ASSESSMENT

1. Demonstrate using two research problems, participant and non-participant observation.
2. Discuss the advantages and disadvantages of observation.

7.0 REFERENCES

Donald A. Dillman, James A. Christensen, Edward H. Carpenter, and Ralph M. Brooks, "Increasing Mail Questionnaire Response: A Four-State Comparison," *American Sociological Review*, 39 (1974): 755.

Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.

Mickey L. Burnim, *An Evaluation of the Public Service Employment Projects in Florida Created Under Title VI of the Comprehensive employment and Training Act of 1973*(Tallahassee: Florida Department of Community Affairs,1978), p. 164.

UNIT 4 FOCUSED GROUP DISCUSSION, DATA VALIDITY AND RELIABILITY

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Focused Group Discussion.
 - 3.2 Data Validity.
 - 3.3 Data reliability.
 - 3.4 The Test-Retest method.

4.0

5.0

6.0

7.0

1.0 INTRODUCTION:

Focus group discussion enables researchers to collect data through in -depth discussion by those who have knowledge experience in the research problem. This is organized in small units. Information gathered can be used to substantiate data from other sources. Generally, data have to be valid and reliable for research to be effective. let us examine FGD and validity and reliability.

3.0 MAIN CONTENT

3.1 FOCUS GROUPS DISCUSSION (FGD)

Blumer, (in Haralambos and Holborn 2000: 996) recommended that we should seek and question the most acute of a group or aspect of social life since “A small number of such individuals, brought together as a discussion group, is more valuable many times over than any representative sample”.

The focus group discussion is conveniently used by researchers to acquire vital information from some well-informed members of groups or communities. The group is selected from the sample. The researcher guides the discussion and records information that could be used to substantiate or corroborate data from other sources.

This method can be used for instance to study youth restiveness in the Niger Delta. The key players in the youth gangs can constitute the focus groups. In dept knowledge will be acquired from such a discussion. The group should be small enough, 1-14 of facilitate effective discussion.

3.2 VALIDITY

A strategic error will occur during research if the instruments used for data collection are not able gather data corresponding to the problem of research. In the social sciences measurements are indirect we cannot say for certain that we are measuring what we are supposed to measure.

Example:

If we want to measure the extent to which education has developed in Nigeria and we develop instruments for measuring growth in the number of the student sitting for the Joint Admission Matriculation Board Examinations each year. If during the period of the study we record astronomical growth, can wesay we have measured the development of Education in Nigeria.?

Example:

There is a particular state in Nigeria that has been recording the performance of candidate from the state in the West African Examination Council annual examination as achievement of the state. As a criminologist, if you investigate and discover that the average amount of money used for registering WAEC examinations in the state is ₦50,000 (Fifty thousand naira only) and not the official amount stated by WAEC which is far less. The candidates are taken to “special Centres” arranged by private school owners who also want to create 100% success rate to attract students by hiring teachers who provide answers to students during the examination.

The question is are we observing state support for examination malpractice or an indication of the efficiency of teachers in the state? To ensure to a great level that instruments used by criminologists measure relatively what they are design to measure by testing for validity is done.

There are three types of validity tests that criminologist should consider:

Content validity:Content validity has two components (a)face validity and (b)sampling validity. If as a criminologist you wish to measure the influence of the class background of students by their involvement of commercial sex work. You will design a set of questions to help you identify the class background of students using such indicators as area of residence, income assets etc. You will review this question to ensure that will reveal different class backgrounds of students. It is the researcher who ensures the face validity of his instrument. The measurement is subjective. The researcher evaluates the appropriateness of the instrument.If the researcher is in doubt, he or she may consult a specialist in the area of study. You may also consider seeking the opinion of your mentor in research.

Sampling validity: In the preliminary module, we outlined the importance of proper statement of the problem and how to use the indicators of the variables to develop aims and objectives of the study. When this is properly done the study question will ask for relationship between the specific indicators of the independent intervening and dependent variables. Sampling validity: A valid instrument as a result, contain corresponding measurement of the variables in the study. It draws from familiarity with all the item of the content population.

EMPERICAL VALIDITY

If you administer an examination and record the performance of students in your class and you want to use another measure to evaluate the objectivity in your grading of scripts, you may instruct the students in your class to grade themselves according to who deserves A,B,C,D,E or F. The students study in groups and have knowledge of the intellectual ability of their colleagues. The similarity in curve of both assessments will reassure you that there is a relationship between instrument used for measuring phenomenon and measurement outcomes. If for instance you are measuring recidivism amongst inmates of a detention Centre and you use official records of the institution to find out that there is a relationship between family instability and recidivism, the instruments should contain strong indicators

linking the absence of family support especially in economic terms to the re-entry of the subject to crime groups and finally to detention. If a measuring instrument is valid, there should be a strong relationship between the result it predicts and the result it obtains when measuring the same or related variables (Nachmias&Nachmias 1996:176) Furthermore, a researcher can ensure empirical validity by comparing his result with those obtained from other instruments.

CONSTRUCT VALIDITY.

In a research on proportionate policing in Nigeria, you may want to know the class implications of policing. such questions as; What is the population of the police force? What percentage of the force is allocated to protecting the lives and properties of the political elite? What percentage of the population in Nigeria does the political elite represent? What percentage of the police force protect the remaining population in Nigeria.? In construct validity, the instrument is evaluated in relation to an existing theory. The elite theory's concepts and theoretical assumptions will guide the researcher through the evaluation process.

3.3 RELIABILITY

Measurement using instruments produce two components. First there is true component and second an error component. We can measure the prevalence of ritual murders at two points in time with the same measurement and derive discrepancies no matter how insignificant. The instrument has variable error. This is expected because in criminology we do not measure length of decks using a ruler., rather we measure social variables that can be momentarily distorted either because of the state of participants in the study or persons administering the instrument. Reliability can be defined as the ratio of the true score variance to the total variance in the scores as measured.

3.4 TEST-RETEST METHOD

The test re-test method is used to calculate reliability. The research first administers the instrument on a sample group at different times. His interest is in

noting the correlation between the results of the two test scores. The reliability estimate is obtained through the coefficient calculated.

$$r_{\chi\chi} = \frac{s_1^2}{s_1^2}$$

where χ = performance on the first measurement.

χ^1 = performance on the second measurement.

$r_{\chi\chi}$ correlation coefficient between x and x^1

s_1^2 Estimated variance of the true scores

s_1^2 calculated variance of the observed scores.

4.0 CONCLUSION

The FGD is highly recommended where there is the need to cross check data during research it compliments data collected with other techniques. It facilitates triangulation and offers an investigator opportunity to observe sample. After field work it is extremely important to ensure that relevant and accurate data was collected. This is achieved through data validity and reliability tests. We have acquired more data through FGD. During data analysis, these will be reported under the relevant theories especially when discussing findings verbatim reports with substantiate or disprove findings or improve findings as the case may be. We have also ensured that all data collected are valid and reliability.

5.0 SUMMARY

Reliability: The level of consistency recorded using a measurement instrument.

Validity: The degree to which a measuring instrument measures what the researcher intended it to measure.

6.0 TUTOR MARKED ASSIGNMENT

1. Describe how you will use FGD in collecting data on leadership and obedience in drug peddling gangs.
2. Distinguish between empirical validity and construct validity. How do you establish them?

3. Show an understanding of reliability in research. Demonstrate using a statistical method.

7.0 REFERENCES

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). Sociology. The McGraw Hill Companies Inc.

Iwarimie Jaja, D. (2014). A brief in social Science Research. University of Calabar Press.

Leo A. Goldman and William H. Kruskal, "Measure of Association for Cross Classification." Journal of the American Statistical Association, 49 (1954): 732-764.

Michael J. Robinson "Public Affairs Television and the Growth of Political Malaise: The case of 'The Selling of the Pentagon,'" American Political Science Review, 70 (1976): 409-432.

Moser, c. and Kelton, G. (1974) survey method in social investigation (Second edition) The English Language book society and Heinemann Educational books Britain.

MODULE 5 THEORIES IN CRIMINOLOGY

GENERAL INTRODUCTION: The functionalist and conflict perspectives on crime dominate intellectual practices in the terrain. Most scholars are either Marxists or functionalist. Let us examine how each perspective guides our understanding of the phenomenon beginning with functionalism.

UNIT 1 NATURE OF THEORY

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Introduction
 - 3.2 The nature of a theory
 - 3.3 Applying symbolic interactionism
 - 3.4 Applying functionalism
 - 3.5 Applying the conflict heritage.
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 References

2.0 OBJECTIVES:

You will understand how different perspectives focus on different aspects of crime all in a bid to unveil its nature and prevalence. Next, you will juxtapose these perspectives to know which of them is applicable to a research problem.

3.0 MAIN CONTENT

THEORETICAL ISSUES IN CRIMINOLOGY

3.1 Introduction

A theory can be said to be a set of interrelated statements which explain phenomenon. Water is made of two atoms of hydrogen and one atom of oxygen (H₂O). A theory explaining water will propose as follows;

- We have two atoms of hydrogen
- We have one atom of Oxygen
- We add the one atom of Oxygen to the two atoms of hydrogen. We have water.

These are statements that aid the understanding of what constitutes water. They also inform the conditions under which water will not form i.e. if we can separate the atoms of hydrogen from the atom of oxygen. This is a theory on matter.

Turning to the social sciences, sociology specifically we find it difficult to apply purely scientific theories because we are dealing with human beings who have feelings. When the founding fathers proposed a science of society, they were misunderstood and told that it was impossible to develop theories that will explain human behaviour. The relationship between stimulus and response is direct in matter and animals. Heating water to 100°C will cause it to boil. Throwing a stick and giving the command “fetch” will cause a dog to behave as instructed. In the case of human beings reasoning is an intervening variable between stimulus and response. A simple experiment such as splashing a cup of water on the faces of individuals can help us form a theory of how people behave when water is poured on their faces.

3.2 THE NATURE OF THEORY

Experiment 1

Water is poured on the face of a lady by a Reverend Father. The lady responds by using her hands to spread the water all over her body with a radiant smile on her face.

Experiment 2

A lecturer pours a cup of water on the face of a female student who has had an expensive hair “make over”. The student demands for a refund of the money spent on the hair.

Experiment 3

A male lecturer pours a cup of water on a male student’s face. The student instinctively slaps the lecturer.

What will be our conclusion on the issue of how people behave when water is poured on their faces? A theory is a proposition that has been tested and assumed to be reliable and valid. The experiment above reveals that response will depend on who poured the water the situation, the meaning of the pouring of water by the subject etc. This does not suggest the possibility of a theory.

In reaction the positivists amongst the founding fathers of sociology argued that what was proposed was not a new science but the adoption of the methods of the pure sciences in developing a science of society. The adoption of the theory of evolution represents a typical example of this process.

The law of evolution propels all living things to change from simple and undifferentiated entities to complex and differentiated beings. Next the positivists argued that society is like a living organism with different parts which perform different functions that are integrated so that society as a whole can survive. Thus, organismic analogy was developed. This laid the foundation for the emergence of functionalism as a theory. This perspective posits that whatever exists in society exists because it has functions to perform. Students always shudder on hearing that crime performs functions in society.

Other founding fathers of sociology perceived the capitalist society of the Eighteenth century as a system by which class inequality became magnified in society through the establishment of relations of production hinged on different and opposing interests of classes on resource allocation after production. This perspective replaced consensus so central to the functionalist theory with conflict and explained crime as an aspect of the hegemonic control of society by the upper class. Karl Marx was instrumental to the development of this paradigm.

Weber was not interested in conflict or consensus but the process by which social action constituted the foundation for the emergence of society. To understand society Weber argued we need to understand social action (Verstehen sociology). His works produced perspective from which crime is understood by viewing it as a form of social interaction during which meaning is created, changed or sustained over a period of time hence, there is nothing intrinsic in any form of action that makes it criminal. The meaning attached to actions by those engaged in social interaction impose the crime status on some of the actors.

A theory can be perceived as a window from which you view the outside world when in a house. The window you open directs your view. The perspectives provided by the founding fathers form the classical theories of criminal behaviours.

In the following, we shall understand how each perspective views crime in society. It is important to note that theoretical perspectives are not used for decorating research. A theoretical perspective must be relevant to the research problem. It should be applicable and should guide the processes of data collection and analysis. Let us use a few examples to demonstrate.

3.3 APPLYING SYMBOLIC INTERACTIONISM

Social Distance and Interaction patterns amongst inmates of Ogoja Detention Centre

The problem of the study is to examine the relationship between social distance between inmates and patterns of interaction. Social distance is not the same physical distance. An inmate may have a cellmate but have a shorter social distance with an inmate in another block than his/her cellmate. The shorter social distance connotes more intense, regular, intimate and valued social interaction. This concept has been wrongly appropriated in the fight against COVID-19. The correct concept is physical distancing. This will determine when where and how the inmate participates in group activities. How will any scholar use the conflict perspective in this study? How appropriate will it be for any scholar to suggest class analysis? What will be the role of functionalism in such a study? Obviously, the researcher will focus on symbolic interactionism. Simultaneously the research type will also be a study design that will permit observation of interaction processes in the detention Centre.

3.4 APPLYING FUNCTIONALISM

Drug cartels and physical abuse of officers of the Nigeria Drug Laws Enforcement Agency (NDLEA)

Considering the problem above a researcher will find it impossible to arrange a situation where drug cartels attack NDLEA officers so observation can take place. It is also not possible to determine the class background of the population of the study. Therefore, it is not every version of the conflict perspective that can be useful to the researcher. Functionalism will provide valuable insight to this problem. NDLEA has specific functions detailed in law. For the outfit to perform these functions, equipment, manpower, and information gathering are necessary.

Considerable too is the nature and modus operandi of the drug cartels. Therefore, functionalism may provide a specific theory that will suit this study problem.

3.5 APPLYING CONFLICT HERITAGE

Corruption and persistence of Boko Haram insurgency in the North East

The problem of this research can hardly be interrogated using symbolic interactionism. Functionalism may not illuminate the problem. Boko Haram is attempting to establish an area of authority in a sovereign nation. The nation sees this as a threat. Conflict is eminent but there is another issue. The manner in which corruption is incapacitating the efforts of the government to contain Boko Haram. The elite theory, class analysis and other strands of conflict heritage become applicable. Data collection and analysis will correspond to the theory chosen. The study will be logical because the literature reviewed will produce results that the researcher will use in establishing his study within existing literature. We shall proceed to review the theories that are applicable in criminology.

4.0 CONCLUSION: A theory enables a researcher approach reality from a specific perspective.

5.0 SUMMARY

Theory: A set of interrelated statements which explain reality.

Functionalism: A theory assumes that the society is like a living organism in which all parts function differently but integrated manner for survival.

Conflict heritage: Conflict as opposed to consensus informs the dynamics of society.

Symbolic interactionism: Society is the product of social interaction between people.

6.0 TUTOR MARKED ASSESSMENT

1. The topic of your research is Religious Fanaticism and Political Instability in Nigeria. Choose a perspective and explain why it is relevant.

7.0 REFERENCES

Edward E. Evans-Pritchard, *The Nuer* (Oxford: Clarendon, 1940), p. 15.

Ekpenyong. S. (2003) Elements of sociology. Second Edition. African heritage and research publication Lagos.

Ritzer, G. (2000) macro sociologist theory Fifth edition. McGraw Hill Boston.

Shepherd, J. M. (1981) SOCIOLOGY. West publishing Company New York.

Spencer, M. (1976) foundation of Modern Sociology Prentice Hall Inc. New Jersey.

UNIT 2 BIOLOGICAL AND PSYCHOANALYTIC THEORIES

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Positive School of criminology
 - 3.2 Endomorphs and mesomorphs
 - 3.3 Psychodynamic theories
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

THEORIES OF CRIME

1.0 THE BIOLOGICAL THEORIES

We do not intend to provide a lengthy and detailed catalogue of the various theories which try to explain crime. We have categorized and summarized some of them below. You will derive more in-depth knowledge from the course on theories of criminology and peace studies

3.0 MAIN CONTENT

3.1 POSITIVE SCHOOL OF CRIMINOLOGY.

The best known initial and monolith is probably Lombroso's theory of the "born criminal". Cesar Lombroso, an Italian established the "Positive school of Criminology" in the 1870s. According to the theory that he popularized, a person inherited a bodily structure and personality that was characteristic of a more primitive stage of evolution. This genetic defect predisposes the individual to criminal acts (see Spencer 1976:156).

Lombroso's proposition triggered the search for kinds of people that are prone to crime. Indicators based on biological constitutions such as mental and physical deficiency, low intelligence and the direct inheritance of criminal traits dominated the search for why people committed crime. Later scientists modified and expanded the range of indicators to include somatotypes, chromosome abnormalities, maternal deprivation, conditioned learning etc.

Basically, Lombroso argued that: criminals could not control their behaviour, were crude and offensive, and had physical features that resembled animals (see Shepard 1981:157). The remarks of Lombroso while performing an autopsy on a notorious Italian thief below influenced his conclusions on the matter:

At the sight of the skull, I seemed to see ...-the nature of the criminal - an atavistic being who reproduces in his person the ferocious instincts of primitive humanity and the inferior animals ... the enormous jaws, high cheekbones, prominent superciliary arches, solitary lines in the palms, extreme size of the orbits, handle-shaped sessile ears found in criminals, savages and apes ... excessive idleness, love of orgies, and the irresistible craving for evil for its own sake, the desire not

only to extinguish life in the victim, but to mutilate the corpse, tear its flesh, and drink its blood Lombroso in Shepard 1981:157).

This description sends a chilling feeling down your spine as you visualize the criminal. So domineering was Lombroso's theory that many intellectuals conducted several kinds - of - people studies in relation to crime.

3.2 ENDOMORPHS AND MESOMORPHS

William H. Sheldon, an American psychologist and physician tried to link physiology and criminology by examining 200 wayward boys. Sheldon (In Spencer 1976:157) identified three prominent body shapes thus: Endomorphs (roundish and soft), mesomorphs (muscular and hard), and ectomorphs (lean and fragile). From his study, Sheldon concluded that persons with bodies that are muscular and hard mesomorphs) were more likely to be criminals. Sheldon's position reinforces the feeling of insecurity than ensues when you are in the mist of "AKPUOBIS" or "Agberos" (Boys who have developed muscular shapes as a result of the type of jobs they do - carrying heavy loads or motor park touts).

Biological theorists, as noted earlier, also explored the possibility that criminality was related to abnormal chromosome patterns and thus physical abnormalities were supposed to determine criminality. But as Spencer (1976:158) points out, most deviant acts are committed by persons who are essentially normal and do not have marked disorders. To this Shepard concurs and concludes:

Biological explanations of deviance are fascinating to many people, including researchers, but so far there is no conclusive evidence that genetic characteristics cause deviant behaviour (1981: 158)

3.3 PSYCHODYNAMIC THEORIES OF CRIME

Psychodynamic theories of crime explain the phenomenon in relation to the mental condition of individuals. Emotional disturbances resulting from development processes such as inadequate socialization, it is argued, may lead to the development of maladjusted personality traits.

John Bolwby (in Haralambos and Holbom 2000: 351), was one of the protagonists of the psychodynamic theories of deviance. He maintained that; children need

emotional security during the first seven years of their lives. Like Parsons, he recommended that naturally, mothers are best equipped to provide emotional security to their children through intimate and loving relationship. Furthermore, Bowlby states, if the child was deprived of motherly love, particularly during the early years, a psychopathic personality could develop. Mary Farmer (in Ekpenyong 2003: 206) points out that where the family structure breaks down or where the parents fail to do their work of child care and socialization effectively, children seem to be emotionally anxious and insecure and they may express their feelings by engaging in reckless and delinquent acts.

In Africa, Nigeria in particular we adopt common sense assumptions and explain juvenile delinquency by pointing to the breakdown of the extended family system which harnessed the influence of several aunts and uncles in controlling the child. But there is the problem of scientifically isolating the impact of other factors as peer group influence, religion, education etc, before sketching a direct link between breakdown of family structure and juvenile delinquency.

Sigmund Freud (In Haralambos and Holbom 2000: 352), developed a psychoanalytic theory which explained personality as being composed of three parts **id**, the ego, and the **super-ego**. The id houses the urges which are biological in nature- thirst for water, drive for sex, and desire for food etc. The ego is the conscious part of the mind. It makes decisions. Because the ego has learnt that unrestrained pleasures lead to problems, it sometimes restrains the id. Socialization equips the super ego with conscience which triggers the feeling of guilt in individuals and by extension restrains them from over indulging in activities which bring pleasure such as sex.

For a balanced development of a well adjusted personality, Freud emphasized the resolution of the Oedipus complex in males, and the Electra complex in Females. The Electra complex, according to the New Webster's Dictionary of the English language: 1995: 303, is a complex in girls or women resulting from an attachment to the father that involves unconscious rivalry with the mother. Oedipus complex refers to the development of sexual desire for their mothers by boys around the age range of 3¹/₂ - 5 years. The Oedipus complex is resolved by the boy

developing an identification with his father, suppressing his sexual desire for his mother, and starting to imitate his father's behaviour (Haralambos and Holborn 2000:352).

Freud's major argument is that civilization puts limits on the free expression and experience of emotions, particularly the instincts of sexual desire and murderous aggression (Pilgrim and Rogers 2004 : 85) He further argues that these limits lead to the need of the child to repress their anti- social feelings in exchange for family and societal acceptance (sic). This battle between emotions and social conformity leads to the development of neurosis (Pilgrim and Rogers 2004:85). Following the above, some psychoanalysis posit that an imbalance between the different parts of the mind as a result of unresolved Oedipus and Electra complex may lead to crime.

Latter psychoanalysts also tried to look at different aspects of the analysis. Bowlby, Winnicott and Laing identified parental privation and deprivation as the source of latter mental health problems; Klein blamed the instincts for mental ill-health on parents, particularly the mother; Aichorn (1936), explained delinquency in terms of underdeveloped super ego, as a result of inadequate socialization by unloving or absent parents; Glover (1949), in contrast averred that crime could result from overdeveloped super-ego, his position was that strict parents force children to repress conflicts to the unconscious part of the mind, and consequently became neurotic. This may lead to the sporadic expression of criminal behaviour such as destroying another person's car in anger, Haralambos and Holborn. 2000, and Pilgrim and Rogers 2004).

The psychodynamic explanation of deviants' behaviour lays emphasis on psychological factors involved in crime. The set of theories have been subjected to numerous criticisms. The most common is that the theory ignores other factors and other social institutions aside the family in accounting for development of personality. Some sociologist have pointed out that there, is no objective measure for mental illness in relation to personality characteristics. In other words, there is no general, agreement on what mental illness is. Therefore, we cannot directly relate it to personality development. Most damaging is the argument that we

cannot isolate all other factors and argue unobjectionably that childhood deprivations are responsible for adult personality problems. Indeed, current researchers argue that children who are raised by mothers only, fathers only, both parents or foster parents may develop positive or negative attitudes depending on a lot of factors that cannot be completely isolated. Despite this criticism psychodynamic analysts have made tremendous contribution to criminology.

4.0 CONCLUSION: The biological and psychoanalytic theories of crime were very popular when they were developed, it was increasing positivism that made them less relevant from the 19th Century.

5.0 SUMMARY

6.0 TUTOR MARKED ASSIGNMENT

- 1) Discuss the problems a criminologist may encounter in using Lombroso's theory to investigate crime in Nigeria.
- 2) To what extent is Sheldon's mesomorph-endomorph typology an improvement of Lombroso?
- 3) Crime can be the product of overdeveloped super ego. Discuss.

7.0 REFERENCES

- Ritzer, G. (2000) macro sociologist theory Fifth edition. McGraw Hill Boston.
- Robert F. Bales, interaction Process analysis, by permission of Chicago University Press. Copyright ©The University of Chicago Press.
- Robert K Merton, Social Theory and Social Structure, rev. and enlarged ed. (New York: Free Press, 1968), p. 103.
- Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart and Winston, 1968); see also E. Y. Babad, J. inbar, and R. Rosenthal, "Pygmalion, Galatea and the Golem: Investigations of Biased and Unbiased Teachers," Journal of Educational Psychology, 74 (1982): 459-474.
- Thorsten Sellin and Marvin E. Wolfgang, The Measurement of Delinquency (New York: Wiley, 1964).

UNIT 3 FUNCTIONALISM AND MARXISM.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
 - 3.1 Durkheim-Functions of crime.
 - 3.2 Merton-Structural Strain
 - 3.3 Capitalism and crime.
 - 3.4 Power distribution and crime.
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

1.0 THE FUNCTIONALIST PERSPECTIVE

We have noted that the functionalist perspective puts forward the argument that all parts of society contribute toward stability and advancement of society.

Deviance is equally functional from this perspective because it creates social cohesion. Branding behaviours as deviant provides a contrast to behaviours that are considered normal, giving people a heightened sense of social other (Anderson and Taylor 2004:209).

When a woman is caught in another person's farm stealing cassava, the woman may be compelled to carry the cassava on her head and walk through the market place. By this act a lot of people are reminded that society labels stealing as deviant. At the same time, society is defining legitimate behaviour. The collective identity of the group is affirmed when people defined as deviant are indicted or condemned by group members (Eriksson in Anderson and Taylor 2004:209).

3.1 DURKHEIM: FUNCTIONS OF CRIME

Emile Durkheim a protagonist of the functionalist perspective, believed that lack of social integration and rapid social change generate deviance. He used the concept anomie to denote a social state dominated by normlessness, a condition which weakens the control of individual behaviour by society. When behaviour is no longer regulated by common norms and values, individuals are left without moral guidance (Durkheim. In Coser 1977). This causes society to be disorganized. Individuals consequently lose a sense of shared values and norms and become uncertain about how they should think or act. Durkheim therefore argued that as social integration decreased, deviance and crime increased. Contemporary functionalists argue that deviance is universal because it performs three major functions;

1. Deviance clarifies rules. By punishing deviant behaviour, society reaffirms its commitment to roles and clarifies their meaning.
2. Deviance unites a group. When deviant behaviour is seen as a threat to group solidarity and people unite in opposition to that behaviour, their loyalties to society are reinforced.
3. Deviance promotes social change- Deviants may violate norms to get them changed- (The acts of the youth in the Niger Delta may eventually lead to the change of laws which have amounted to so much social injustice in the area). (Kendal 2003: 203. The sentence in brackets is mine).

MERTON STRUCTURAL STRAIN.

There is a wide array of contemporary functionalist theories on deviance. Most notable is Merton who drew from the works of Durkheim. He buttressed the point that criminal behaviour was no longer seen as a sign or consequence of individual or social pathology, (but explicable as a form of normal learned behaviour - given the right social milieu) (Bottomley 1979:46). Consequently, Merton allocated the blame for crime fairly and squarely upon the socio-economic and political organization of society. He strongly argued that some social structures force some individuals to engage in criminal activities – hence the concept structural strain.

Using the American society as a peculiar example, he posited that it set up certain ideals of individual success (largely measured in financial terms) but failed to ensure that society was structured so that there were equal opportunities for each member to achieve these ideal goals (Bottomley 1979:47). It thus follows that people internalize ideals from their society by adopting norms which govern legitimate behaviour to attain specific goals. However, when legitimate opportunities are limited or nonexistent, people may seek alternative ways to achieve their goals or they may abandon the goals altogether (Calhoun, Light and Keller 1997:155).

Merton suggested that there were different patterns of adaptation to social life, ranging from conformity and ritualism, through innovation to rebellion and retreatism. Nigeria places tremendous emphasis on materialism. People want to acquire a lot of money to buy expensive things made outside the country. Because of the decay of state infrastructure, Nigerians bear the burden of personally building their houses, sinking boreholes to provide water and using generating sets as sources of energy. But the legitimate ways of earning enough money to achieve the entire above are very limited considering the high rate of unemployment, inflation and low purchasing power of workers. So how have Nigerians adapted to this social reality?

Merton identified five possibilities:

1. **Conformity:** Continue to seek culturally approved goals by culturally approved means, despite the discrepancy between expectations and opportunities. The

Hausa boys who for generations have been barely eking out a living by polishing shoes are good examples.

2. **Innovation:** Pursuing culturally approved goals by culturally disapproved means (including illegal activities). Men of God who dupe unsuspecting worshippers, assassins who are paid to settle political scores and 419 kingpins - all arrive at financial success through illegal means.
3. **Ritualism:** Conforming so strictly to socially prescribed means of achieving goals that the larger goals are forgotten. A Headmaster of a primary school in a remote village that makes do with his small salary and substitutes it with farming may see his owning a bicycle and one bedroom flat as basic achievements. He glues himself to his work from 8.00am to 6.00 pm everyday following the routine in running a primary school.
4. **Retreatism:** Abandoning both the goals and the means of achieving them that one's culture prescribes. The structural Adjustment Programme and austerity measures forced many Nigerians who had jobs in cities to return to villages after losing their jobs. Some of them simply gave up on jobs, salaries, car and houses. They sought solace at "Joints," "Nkwu Ocha junction" (palm wine bar), or "Nkwobi Joint" (Bush meat and palm wine bar). They go to joints without money but go back to their house fully drunk on a daily basis.
5. **Rebellion:** Rejecting the approved goals and means of achieving them and embracing new, socially disapproved ones instead. Many cult groups exist in Nigerian Universities today. The groups have rejected the generally approved university norms and adopted those that have been branded illegal by the universities and the Nigerian state (Calhoun, Light and Keller 1997:155 The Illustrations are mine).

Merton interprets possibilities 2,3,4 and 5 as deviant in some sense. Fascinating as this theory may be, some sociologists have rejected it based on several identified flaws. For instance, Cohen (in Ekpenyong 2003: 212) argued that Merton had failed to account for "non utilitarian crime" which delinquents engage in for fun and not to meet some stated in society.

Travis Hirschi (In Anderson and Taylor 2004:212) took functionalism and deviance towards a different direction. His social control theory posits that deviance occurs when a person's (or group's) attachment to social bonds is weakened. Farley (1994), Thompson and Hickey (1994) have provided specific definitions of social control which emphasize mechanisms or process whereby a group or society enforces prevailing social norms thereby enforcing conformity to its demands and expectations. Social control they aver, involves those with power who seek to label as deviant those who do not conform (see Akubukwe 2003:59).

In most societies people internalize social norms because of their attachment to others. For instance a son is socialized by the father upon whom the son internalizes some norms of conformity. People care what others think of them, and therefore, conform because they accept what people expect (Anderson and Taylor 2004:213). A student could as result of the expectations of a lecturer spend hours in the reading room knowing that the lecturer will expect him to provide answers to questions posed by the lecturer.

The social control theory usually perceived as a version of the functionalist theory lays emphasis on the importance of socialization in producing conformity to social rules. It posits that society produces, pushes and pulls that move people toward criminal behaviour; however, some people insulate themselves from such pressures by having positive self-esteem and good group cohesion (Walter Reckless in Kendal 2003:207).

Reckless is convinced that people do not participate in deviant acts because of two types of containments - inner, and outer. Inner containment refers to self-control - sense of self worth and responsibility, and resistance to diversions. Outer containment encapsulates a loving and supportive family and friends, supervision by acceptable others, and reasonable social expectations. Individuals with the strongest containment mechanisms seem more able to withstand external pressures that may cause them to participate in deviant behaviour.

The gist of the social control theory can be summarized thus:

Most people probably feel impulse towards deviance at some times, but that the attachment to social norms prevents them from participating in deviant

behaviour. When conditions arise that breaks those attachments deviance occurs (Anderson and Taylor 2004:212).

The social control theory has been used to study crime in urban and rural settings. The approach has enabled researchers to correlate the severance of social bonds to several types of deviance and crime.

THE CONFLICT THEORIES OF DEVIANCE

The conflict heritage links unequal distribution of power and resources to the study of phenomenon. Turning to deviance conflict theorist firstly examine the dynamics of unequal distribution of economic resources and how this generates deviant behaviour. Secondly, they x-ray the effects of unequal power relations in society and therein situate the emergence of certain deviant acts.

3.3 CAPITALISM AND DEVIANCE

Some conflict theorists situate deviance within the economic system. Karl Marx did not write much on deviance. He rather produced analytical tools with which his contemporaries have erroneously assumed that the laws and the criminal justice system protect the upper class (Kendal 2003:210). It is safer to argue from the Marxian perspective that the criminal and justice system protect the powers and privileges of the dominant class in any mode of production, and not just the capitalist class. In other words, the criminal and justice system in every mode of production will protect the interests or the class that owns the means of production.

Note that we had earlier observed that Karl Marx derived the structure of society by examining the productive forces and relations of production at any historical epoch. The substructure which is the economic base of society determines the nature of the superstructure where the legal system is located.

The super structural institutions usually fashioned by the state, function to legitimize existing class inequalities. Furthermore, they rationalize and legitimize the hegemonic legacies of the dominant class. The contradiction inherent in the

unequal resources accumulation necessitates a legal system which operates more in favour of the dominant class.

The system also generates two major types of crime - white and pine collar crimes.

Corporate or white-collar crimes such as stock market manipulation land, speculation, fraudulent bankruptcies, and crimes committed on behalf of organizations often involve huge sums of money and harm many people. By contrast, street crimes robbery and aggravated assault generally involve small sums of money and cause harm to limited numbers of victims (Bonger in Kendal 2003:211).

In some Nigerian cities like Aba, Warri, Port Harcourt and Onitsha youngsters have been burnt to death for snatching handset phones. But in the same country newspapers and magazines have reported cases of money laundering involving billions of naira by the political elite who not only serve their full tenures but continue to exhibit crude opulence when out of office.

Conflict theorists aver that the poor commit crime to survive while members of the capitalist class indulge in crime because of insatiable want for wealth. Thus, some crimes represent a rational response by the poor to the unequal distribution of resources in society (Gorden,1973). Living in poverty, conflict theorists argue, may lead to violent crimes and victimization of the poor by the poor. Often poor Nigerians express the view that armed robbers should attack the rich and banks and not poor people. The formation of cult gangs who terrorise people in slums areas could be attributed to the poverty that is prevalent in slums.

In sum, some conflict theorists argue that the law and its enforcement in society protect property and those who own it while in correspondingly prevents those without property from threatening the lives and property of members of the upper class. A social commentator once remarked that Nigeria Police performs three major functions. Thus:

1. Protect money and property belonging to members of the upper class.
2. Guard the houses, cars and lives of the rich; and
3. Collect the small sums of money in the pockets of the poor.

Right or wrong, the remark agrees with the position of the critical approach to deviance.

3.4 POWER DISTRIBUTION AND DEVIANCE

According to conflict theorists, laws of society only have a superficial connotation of justice and equity. Laws and norms they argue are established for the benefit of those in power and not for society as a whole using any absolute standard of right and wrong. As a result, the activities of poor and lower- income individuals are more likely to be defined as criminal than those of persons from middle - and upper income backgrounds (Kendall 2003:210).

Accordingly, Spitzer (1975) specified that the law from this perspective defines and controls two distinct categories of people: (1) social dynamite - persons who have been marginalized including rioters, labour organizers, gang members, and criminals and (militants) and (2) social junk - members of stigmatized groups (such as welfare recipients, the homeless, and persons with disabilities) who are costly to society but relatively harmless.

Power differentials also influence how victims of crime are treated. When the victims live in Government Reserved Areas (GRAs), (top politicians or government officials), law enforcement officials are more likely to make considerable efforts to apprehend the perpetrators. But when the victims are poor, live in water fronts or make shift accommodation, the law enforcement agencies offer such excuses as lack of functional vehicles or few officers on duty for failing to offer any protection. This perspective illuminates the critical nature of power relations and how it influences the definition of crimes as well as the formulation and enforcement of law. It associates crime and law enforcement with power differentials in society.

4.0 CONCLUSION:

Functionalism focuses on how crime helps societies to clarify rules, strengthen social cohesion and prompt change. The conflict heritage analyzes crime from the class perspective highlighting the relationship between inequality and types of crime.

5.0 SUMMARY

Functionalism and Marxism dominate the literature on explanation of crime. These perspectives do not require rigorous psychological test. They are predominantly used for conducting surveys.

6.0 TUTOR MARKED ASSESSMENT

- 1) Discuss the three major functions of crime according to contemporary functionalists.
- 2) To what extent is Merton's structural strain relevant in explaining the prevalence of crime in Nigeria?
- 3) Economic power inequality explains justice delivery in Nigeria. Discuss.

7.0 REFERENCE

Ifeanacho, M. (2012) 2nd (ed). Fundamentals of Sociology. University of Port Harcourt Press, Nigeria.

Komblum, W. (1994) 3rd (ed). Sociology in a changing world. Harcourt Brace College publisher.

Talcott Parsons and Edward A. Shills, Toward a General Theory of Action (New York.: Harper & Row, 1962), pp. 50-51.

William Kornblum, Blue-Collar Community (Chicago: University of Chicago Press, 1974).

UNIT 4 SYMBOLIC INTERACTIONISM,CULTURAL THEORIES AND MODERNISM.

1.0 Introduction.

2.0	Objectives.
3.0	Main Content.
3.1	Symbolic interactionism
3.2	The Labelling theory.
3.3	Sub Cultural theory.
3.4	Post Modernism.
4.0	Conclusion
5.0	Summary
6.0	Tutor Marked Assessment
7.0	Reference

1.0 INTRODUCTION.

We have discussed several theories applicable to research in criminology. In this module we shall complete the exercise in theories by examining three culture-based theories: symbolic interactionism, the labelling theory and the sub-cultural theory. There is a theory that has emerged with increased globalization – post modernism. We shall briefly explain this theory and introduce you to data analysis, beginning with data management and coding.

2.0 LEARNING OBJECTIVES

Appreciation of symbolic interactionism

Sufficient understanding of the labeling theory of crime.

Understanding and application of sub-cultural theory of crime.

Knowledge on post modernism and crime.

3.1 SYMBOLIC INTERACTIONISM AND DEVIANCE

Symbolic interactionism refers to the dynamics of social interaction and how meaning is created, sustained or changed overtime. Deviance therefore forms part of the meaning attached to interaction processes in society. Symbolic interactionism approaches deviance from the perspective which seeks to understand:

1. How deviance originates from interaction between two or more people, and
2. How society's reactions to certain behaviours define deviance.

Sutherland (In Anderson and Taylor 2004:216) provides us with a classic *theory of deviance steeped* in symbolic interactionism. His theory - "Differential association theory" interprets deviance including criminal behaviour and white-collar crime, as behaviour one learns through interaction with others. Specifically, Sutherland argued that:

Becoming a criminal or juvenile delinquent is a matter of learning criminal ways within the primary groups to which one belongs - people become criminal when they are more strongly socialized to break the law than to obey it. Those who differentially associate with delinquents, deviants or criminals learn to value deviance (Anderson and Taylor 2004:216).

Consider the career of those who use rickety cars to sell concoctions to members of the public; they do not work as individuals. Some of their members mix with the crowd. When there is a call for volunteers to test a concoction, their members, unknown to the public, step out, test and buy the "medicine." This will have a psychological effect on some other members of the public who will join in buying the "medicine". Some others keep watch to alert members on the approach of the police.

A twelve-year-old boy was reportedly shot dead along with six armed robbers. The boy allegedly used his bucket to pack guns, while "pure water sachets" were stacked on the guns to hide them. The boy arrives at any area of operation first. The gang will arrive later and pick the guns. Shortly after operating, the gang will re-pack the guns and the innocent - looking boys shouting "buy your pure water," will carry the guns to a safe hiding place. (The News Call, 20th November 2006:4). The boys' association with the group definitely exposed him to deviant expectations. Miller (1986) adopted the approach to dispel the genetic explanation of crime. He rather posited that youths raised in deviant families were more likely socialized to become deviant themselves. Differential association theory offers compelling evidence for the identification of certain families with crime. It also explains how deviance is culturally transmitted from generation to generation. The theory has been criticized for producing class or group biased evidence to

substantiate its claim. The value system of the working-class groups is always reviewed against the background of middle-class values.

3.2 THE LABELLING THEORY

The argument behind the theory is that social groups create deviance by making the rules whose infraction constitutes deviance and by applying those rules to particular individuals and labelling them as outsiders (Ekpenyong 2003:222). From this perspective, there is intrinsically criminal in any act. What makes any act criminal is the definition and application of sanctions by others in response to a persons act or behaviour. Crime therefore, is a sign post made by members of society and used for identifying particular people based on behaviours. Haralambos and Holbom (2000:373) further illustrate:

Whether or not the label is applied will depend, on how the interpreted by the audience. This in turn will depend on who commits the act, when and where it is committed, who observes act, and the negotiations between the various actors involved in the interaction.

Let us illustrate this with two motor-park touts fighting. Their colleagues may deliberately allow them to fight on to settle a lingering dispute. The observers will prevent each tout from using any dangerous weapon. Upon any indication of a win by any of the touts, the observers will put a stop to the fight. The interpretation within this context is that no crime has been committed. Rather the interaction has enabled the participants identify the stronger person.

If however the police appeared at the scene, it will still be possible for the crowd, including the two touts, to reach an agreement that they were playing. If the police receive the same response from every member of the crowd, then no crime has been committed. The police do not determine the rules of play nor do they arrest people for playing.

Becker (In Haralambos and Holbom 2000:373) makes the emphases that only those who have the power to make the label stick can really make others become outsiders. If a male student observed another male student rape a female student, the seriousness of the matter will compare unfavourably to the Vice Chancellor doing the observation. The Vice Chancellor will take the student through a disciplinary committee to rustication or expulsion.

3.3 EFFECTS OF LABELLING

What happens when a person is labelled as deviant? The labels we carry come with social expectations depending on whether they are negative or positive. Definitely, we express peculiar expectations to rewards Reverend Fathers, so do we of notorious armed robbers, "hit men", witches and wizards.

The labels may assume the form of master status and thus have a domineering influence on other statuses the labelled individual occupies. As a result the attitude and behaviour of people towards the labelled will be influenced by the master status.

Becker (In Haralambos and Holbom 2000:374) outlines a number of stages which depict what follows after labelling.

1. This may lead to rejection from many social groups. (A student identified as the "hit man" of a notorious cult group in a university may not be the best candidate for Director of Socials in the Student's Union. His Departmental Association may de-register him and so would the university).
2. This may encourage further deviance. (The deregistered "hit man" may subsequently register with a political party and graduate to hired assassin).
3. The official treatment of deviance may have similar effects. (Cases of recidivism show that some minor criminals become hardened criminals in prison. And so, they see life in and out of prison as normal).

4. He deviant career is completed when individuals join an organized deviant group. (In this context, the hired assassin joins an organization that can provide odd services to politicians, lawyers, bankers etc., because of a wide network).
5. Within the group, a deviant subculture develops. (They develop rituals, programmes, commitments and obligations by which members must abide), (Illustrations are mine).

Becker's theory is just one variant out of so many which make up the symbolic interactionist approach. Several criticisms have been levelled against the theory. For instance, the perspective is criticized for ignoring the material conditions of existence in the analysis of deviance. In spite of the numerous criticisms, symbolic interactionism provides invaluable micro-insight to the nature of deviance.

3.4 SUBCULTURAL THEORIES OF DEVIANCE

This perspective illuminates the processes which surround the labelling of the life-styles of subcultures as deviant by larger cultures. A deviant subculture includes a system of values, attitudes, behaviours, and life styles that are opposed to the dominant culture of the society in which it is found (Brake in Komblum 1994:218).

Deviance within this context is neither a product of individual biological, psychological or social attributes but a label placed on a particular way of life shared by a group of people. The groups so labelled remain members of the larger society. The significant attribute is that they adopt life-styles which stand in opposition to the life- style of the larger culture. As the subculture evolves, it develops distinct myths legendary heroes, honorary members, scale of reputations and social routines. These enable members rationalize and sustain life-styles.

Subcultures of '419" exist in many Nigerian cities. They have developed myths which explain 419 as a rational attempt by brave Nigerians to return what was looted by the hemispherical North during the early periods of European contact and colonialism. Their legendary heroes have built mansions and porche hotels in the choicest parts of Nigeria. Some top police officers, politicians and Reverend Gentlemen are honorary members. Their scale of reputation manifest in flashy

cars and huge sums of money sprayed at occasions. Social routines range from consulting native doctors through being mentioned by praise singers to nocturnal meetings.

Miller (1962) and Charles Murray (1989) have adopted the sub-cultural theory of deviance to illustrate how deviance emerges from the position of groups. For Miller, deviance is an attribute of lower- class culture, by contrast Murray attributes deviance to upper class culture (see Haralambos and Holborn 2000:359-361). The subculture theory is most useful in explaining deviance from an ethnocentric perspective. The gypsies who do not subscribe to permanent settlements, the herdsmen who migrate with cattle and "Area boys" are types of subcultures that could be labelled deviant by major cultures.

3.5 POST MODERNIST THEORIES OF CRIME

Post modernism involves a pessimistic disposition towards the view that the truth can be found in meta-theories or ideologies such as Marxism, symbolic interactionism or functionalism. It avers that global changes have rendered the meta-theories and their sets of- ideas impotent. The increasing sophistication of technology has trapped humans in a type of powerless uniformity. Thus analysis based on differential power or resource relations have become anachronistic in the face of intertwining nature of power, knowledge and social control.

Using this approach, Michel Foucault (1979) studied the prisons from the mid-1980s to the early 1990s. Foucault argued that technologies such as the Panopticon have made widespread surveillance and disciplinary power possible in many settings. The Panopticon is a structure that gives prison officials the possibility of observing criminals completely all the time.

They look like towers in prisons. Foucault (in Kendal 2003; 212) found from his studies that:

Many penal institutions ceased torturing prisoners who disobeyed the rules and began using new surveillance techniques to maintain social control. The prisoners know they can be observed at any time, they do not actually know when their

behaviour is being scrutinized. As a result, prison officials are able to use their knowledge as a form of power over the inmates.

Foucault's major argument is that the uses of power knowledge and technology have become critical in exercising social control. The police do not need to ask questions and expect replies before booking a driver for over-speeding in the United States of America. An instrument in the police car records the speed at which other cars are moving. The police department in the USA can monitor people on payroll through electronic transmitters. Money stolen from banks has been recovered due to small transmitters attached to bags used by banks to keep money. The electronic eye transmits movements in streets to police monitoring stations. Thus, social control no longer fits into any of the mega theories.

In explaining deviance and social control, post modernists study the knowledge, technology and power mix. The theory foresees effective social control through electronic surveillance. However, it cautions that widespread uniformity in conformity may not be possible due to pockets of resistance to electronic surveillance.

4.0 CONCLUSION:

The labelling theory informs the criminologist that it is erroneous to design a model for understanding crime in societies. What the criminologist could be interested in is the interpretation of crime as a label design by some members of the society and placed on others. The sub-cultural theory focuses on some cultures that are termed deviant. The gypsies, herdsmen etc. post modernism shift focus from established theories to new technology and crime control.

5.0 SUMMARY

Labelling theory: the process whereby societies create rules whose infraction constitutes deviance.

Sub-cultural theories: the labelling of sub cultures as deviant predominantly by larger cultures.

Post modernism: the argument in favour of the consideration of intertwining nature of power knowledge and control in explaining social reality.

6.0 TUTOR MARKED ASSIGNMENT

1. What are the major arguments of post-modernism? How are they useful in analyzing criminal activities?
2. Use the sub-cultural theory to examine the Boko Haram phenomenon.
3. Describe the stages which depict what happens after labelling.

7.0 REFERENCES

- Ifeanacho, M. (2012) 2nd (ed). Fundamentals of Sociology. University of Port Harcourt Press, Nigeria.
- Ken Dall, D. (2003) 4th (ed). Sociology in our time. Wallworth Thomson Learning.
- Moser, c. and Kelton, G. (1974) survey method in social investigation (Second edition) The English Language book society and Heinemann Educational books Britain.
- Spencer, M. (1976) foundation of Modern Sociology Prentice Hall Inc. New Jersey.
- Talcott Parsons and Edward A. Shills, Toward a General Theory of Action (New York.: Harper & Row, 1962), pp. 50-51.

MODULE 6 DATA ANALYSIS

GENERAL INTRODUCTION

If data is not properly managed after collection, the entire research will be an exercise in futility. In this unit you will acquire knowledge in data analysis beginning from data management plan through coding storage.

An entire research may be referred to as literature review. The section on data analysis in any study is used by the scholar to push the boundaries of existing knowledge by logically establishing hypotheses or study questions which indicate the reaffirmation of existing knowledge or the discovery of new information. Data analysis is key in the use of data collected during fieldwork it seeks to articulate data in pattern that reveal relationships. The module describes in details that part of research that focuses on data collected and the analysis of such data.

- Learning objectives
- Ability to design a data analysis plan
- Know how to code data
- Know the appropriate strategies of data management (storage)

Why a data analysis plan?

Some researchers design their data management plans after data collection. It is advisable to design your data management plan earlier in the study. The researcher is fairly aware of the expected pattern of results of the study based on the research problem. Assuming you are engaged in a study explaining the premier league mania and the underdevelopment of football in Nigeria, the collection of data, interpretation of data and their presentation will be conceptualized before the field work. What indicators are you going to use for making comparison between premier league and Nigeria league? What are the major exposures of the Premier League such as sponsorship, advertisement, media coverage etc. and how do they influence the outcomes, fund raising, remuneration

of players and coaches, training facilities .Such questions require answers that can form building blocks in your data management plan.

It is from the anticipated nature of the questions and answers of a research problem that a data management plan is drawn.

Unit 1 QUALITATIVE DATA MANAGEMENT

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content
 - 3.1 Data Management Plan.
 - 3.2 Data Storage.
 - 3.3 Coding
 - 3.4 Qualitative analysis
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

2.0 OBJECTIVES: building capacity in students for designing data management plans, coding of data and storage and effecting data analysis.

FORMULATION OF DATA MANAGEMENT PLAN

Step 1 Review literature on your study objectives. From this review, you will derive variables previously used by scholars. You may also gain insight to how the variables were coded. The researcher through this process will ensure the use of standardized or validated measurements.

Step 2: Examine the significance of your study. What value are you adding to existing knowledge? A study on unemployment and cyber-crime amongst adolescents for instance will provide data on why all unemployed adolescents are not cyber-criminal as well as the factors which facilitate the participation in cyber-crime by some adolescents. If the prevalence of the phenomenon has to be managed, the recommendations of the study will be useful.

Step 3: Review the aim of the study and the hypotheses formulated. Some aims of the study may not be measurable, the use of objectives become more convenient because they are derived from the indicators of the exposures and outcomes conceptualized in the aim.

Example: Community policing and crime control in Eleme Rivers State. Community policing is hard to measure as a concept and so is crime control but we can derive measurable indicators from both.

Community policing	Crime control
Manpower	Converge
Equipment	Arrests
Mobility	Response rate
Information gathering	Crime prevention

These can form the components in your model.

Step 4: Finally formulate a timeline for your data analysis making provision for some limitations of the study. From the variables and the model developed it is obvious that the researcher will collect data using questionnaire or interview on the indicators of community policing and crime control in the study area. Test of relationship will be done to ascertain the significance of each relationship. How best can we test for significance of relationship? The data management plan begins to emerge.

3.1 Data Management

A researcher you would have observed that all the letters issued to you to authenticate your request to conduct fieldwork usually contains an undertaking that all data collected will be treated with utmost confidentiality. This is the first principle of data management. To achieve this, information gathering instrument should as much as possible avoid information that are traceable to individuals. Confidentiality is enhanced when minimal identifiable information is collected. The problem of confidentiality and willingness to participate in a study are magnified in countries where governments are oppressive. It is therefore important that the research should manage data to make it usable not only by himself but by other researchers without subjecting informants to any form of

insecurity. Data should with a short period be anonymized if there are possibilities of identification of source. The data management plan should heighten the possibility of effective and efficient responses to the needs of the research. Effective data management infuses the knowledge of what data to collect the method of data collection, who will be interacting with the data, how the data will be stored processes and ventilated.

3.2 Data Storage

Before storing data, develop a system whereby independent and dependent variables are consistently named. This will influence the format which can be easily manipulated and therefore analyzed. The wider research community will find your data meaningful. The storage system does not necessarily need to be sophisticated or complicated. The key words are transparent and auditable, other scientist can as a result assess your work analyze your data and arrive at the same conclusions.

We have earlier noted that limitations may emerge during field work. A data storage system can facilitate error management during data collection by providing for the documentation of all data cleaning or correction. A researcher should ensure that the principles of data storage are accommodated. These are:

- The characteristics of the data storage system must match the data collected.
- It should be easy to match data entry “front end” with the instrument used for data collection and there must be clear instruction on how to enter data.
- Data requires a database for storage.

There are a number of databases that researchers may use to store data. Examples include Open Data Kit (ODK) Excel etc. The choice of a storage system usually depends on such factors as size of data, where data collection was done access requirements, corresponding written comments etc.

3.3 Coding

Researchers use coding matrix to present data collected using questionnaires. The data is first expressed in numerical form Mustafa (2010) says coding refers to the allocation of numerical digits to the responses in order to make tabulation of data

easy. Coding could be arbitrary or conform with ordinal variables. It is important that coding should be consistent for specific variables.

Coding Rules

- (i) Ensure numbers assigned make intuitive sense

A higher age category should correspond with a higher code. If you have

- a. 15 – 20 yrs
- b. 21- 26 yrs
- c. 27 – 32 yrs

The age range 27-32 should have a higher code. Intuitive sense does not apply to some variables as sex; males and females have equal codes coding conform to theories.

The coding of data during research should conform to the nature of the theory which the researcher wishes to support or falsify. In doing this the researcher must have contingency codes for variables that are multidimensional. A card -carrying member of the All Peoples Congress (APC) may not be a strong supporter of the fight against corruption. A researcher should therefore develop categories for membership and support for corruption.

Coding should express mutual exclusivity: For coding to achieve this category for each variable must be designed to prevent the same variable qualifying for entry into another category. If you are categorizing types of accommodation, the categories below may not express mutual exclusivity.

- a. Self -contained flat
- b. Duplex
- c. Bungalow
- d. 4- bedroom flat
- e. Terraced building

A self-contained accommodation can be found in a duplex building. A four bedroom flat can also be located in a bungalow. However, a mutual exclusive categorization could be drawn as follows;

- a. Duplex
- b. Bungalow

c. Terraced building

If you are interested in the relationship between income and type of accommodation, the second set of buildings.

Coding conforms to Exhaustiveness

By this rule, the enumeration of categories in full capacity which includes all the relevant categories elicited from respondents. In other words, there will be no need to add “any other” in the instrument. In seeking the marital status of respondents during research we only categorize married, single, divorced and widowed. This excludes the people we describe as co-habiting without being legally married. By this coding the principle of exhaustiveness has been violated. Other categories that may often be omitted include same sex marriage.

Coding includes detail of Categories

The details expressed must make sense. A study involving lecturers income should not reflect these categories;

- a. ₦300, 000 ₦400,000
- b. ₦400, 000 ₦500, 000
- c. ₦500, 000 ₦600, 000
- d. ₦600, 000 ₦700, 000

Most professors will be categorized on (a) and no further. Thus, the details are inappropriate. The scales may suit other occupations such as Judges and Senior Advocates of Nigeria.

Coding could be deductive

This is done by using theories to structure questionnaires before administering to the sample. When this method is adopted, it is always advisable to conduct a pretest to ensure validity. During the pretest the instrument may be modified in line with realities characterizing the sample.

Coding could be Inductive

Inductive coding is most appropriate when the researcher is not armed with any theory guiding coding. In other words, the research is exploratory. The questions in exploratory research designs are normally open ended. The researcher therefore

designs coding as a function of the nature of responses from the sample. This form of coding is also useful when data is collected by observation. In a process the researcher will form categories for responses frequently mentioned. Thereafter other categories that are seldom mentioned will be included. Based the rules above coding is completed and a “codebook” made available.

Qualitative data analysis

Secondary data analysis

3.4 QUALITATIVE DATA ANALYSIS produces details about people in real life situations. It describes relationships using data collected during field work. It is not inferior due to lack of sophisticated mathematical analysis.

Before we discuss the different methods of data analysis let us remind ourselves of some of the difference between qualitative and quantitative studies that should help us appreciate the differences in methods of data analysis prescribed.

Qualitative Studies	Quantitative Studies
<ul style="list-style-type: none"> - Focuses on extensive study of issues related to the study question - The explanations reveal why how, when a phenomenon occurs - Mainly inductive and explains concepts during the study 	<ul style="list-style-type: none"> - Predominantly deductive - Structured questionnaires and interviews are used for data collection - The outcomes are decided proactively but tested for acceptance or rejection - Phenomenon is measured on statistical basis

To state that qualitative analysis is inductive does not in any way diminish its systematic nature. Oral interviews, observations and other forms of data collection are done logically. The research question influences the dept of investigation on the relevant variables in the topic. Finally, quantitative analysis establishes patterns in data and identify relationships depending on the objectives of the study.

Example research topic: Youth Restiveness and the criminalization of resource control in the Niger Delta

Your job in this case is to interpret information after fieldwork. To achieve this, you review literature to gather information on the origin of the struggle, how it was declared and how it gained prominence. You will now turn to participants to obtain information on the problem of criminalization from different relevant social categories. You will then organize the whole information into meaningful units to find commonalities and differences.

Finally, you will put elements of understanding back together to form understanding that makes meaning to others. Why was the struggle not criminalized initially? The critical elements of understanding may come from traditional rulers and activists, who started the struggle and actors in government circles. How did criminalization begin? Elements of understanding will emanate from leaders and members or festive youth organizations and current actors in politics. The same is applicable to “why criminalization”. With regards to the consequences of the criminalization, wider social categories will provide the necessary elements of understanding.

The entire process involves “decontextualization” and recontextualization” by the researcher. Decontextualization occurs when the researcher using codes gathers information. Depending on the patterns in the information collected, the researcher recontextualizes by packaging data under themes that project relationships. Then conclusions and summaries are derived.

Beginning from data collection where you conceptualize the problem and begin to collect information through the process of reviewing data collected taking into consideration positionality (your position as the researcher and your biases). A professor from the Niger Delta may conduct this study and conclude that the struggle has not been criminalized rather what has been criminalized is the image of the youth organizations by state”. During interviews your biases may change as overwhelming information point towards the opposite direction. You may revise your instruments for data collection at this stage. When you are convinced, they

are gathering relevant data you may do data cleaning depending on the differences in the data collected before and most recent.

Finally, the key concepts youth restiveness and criminalization of the struggle for resource control will guide the researcher synthesize the information into categories and group them under the major variables of the study. If the youth gangs provided information on the failure of traditional rulers to achieve quick results based on anticipated gains of the struggle, if the same youth decided to take their fate in their hands and wrestle the struggle from the traditional rulers, if the traditional rulers out of fear of the potential of the youths to control violence conceded. All these will form data on the initial emergence of youth groups in the struggle. That is on one hand.

On the other, if the youths posit that the militarization of the area curtailed such activities as oil bunkering, if reduction in these activities starved them of funds to continue the struggle, if they devised coping strategies as robbing banks, kidnapping etc, such data will be group on “How criminalization occurred”.

The key concepts have therefore provided categories for coding the data in the codebook. In the codebook the researcher link codes with corresponding passages in his report. The other aspects of the report that codes may relate to include photographs, videos or works of art.

Secondary Data Analysis

Secondary data analysis is very useful in criminology. Remember how Durkhem used patterns in reflecting suicide rate and social forces to explain why people commit suicide. A criminologist in Nigeria will be interested in statistics produce by the Police, Nigeria Security and Civil Defence Corps, Road Safety and Nigeria Drug Law Enforcement Agency departments. Such records can be analyzed for three reasons;

Conceptual Reasons

Periodization may make the avoidance of the use of secondary data analysis impossible. Patterns of robbery in Nigeria before the civil war will definitely rely on crime records as preserved in the archives. Another reason for which a

researcher may use secondary data analysis is for comparison purposes, data from different periods or areas make comparative analysis possible.

Economic Reasons: When existing data is used during research it reduces costs drastically. Economists in particular have used secondary data analysis in making predictions. Data from the Central Bank, World Bank and other financial institutions are collected and analyzed during research. First secondary or primary data help criminologists to describe or develop clarifications on social phenomenon. The data must be organized to facilitate interpretation as expressed in the following methods of qualitative analysis.

FFREQUENCY DISTRIBUTIONS

Assuming you have concluded data collection on criminalization of the struggle for resource control in the Niger Delta and in your questionnaire, you offered options to the youth gangs to explain why kidnapping was adopted as strategy and your options included:

- a. Finance the struggle
- b. Finance social gathering of restive youths
- c. Provide amenities for the poor
- d. Finance evangelization

The frequency table designed by the research will demonstrate the number of times options a, b, c or d was indicated in each copy of the questionnaire as shown on the table below;

Table 1.4

Reasons for adopting kidnapping

Table 1 Reasons for Criminalizing the Struggle.

Category	Frequency
Finance the struggle	f 70
Finance social gathering of restive youths	f 40
Provide amenities for the poor	f 25
Finance evangelization	f 15
Total	150

Note that frequency tables are constructed in accordance with the level of measurement used by the researcher i.e. nominal, ordinal interval and ratio (see construction of questionnaires).

PERCENTAGE DISTRIBUTION

After distributing data using frequency a researcher further demonstrates the distribution using percentage. Frequencies do not connote weighting. Percentage distribution weights frequencies and make them more meaningful.

If you are conducting a research in patterns of gender- based violence in a particular area, the frequency distribution from your questionnaire will reflect the number of times each form of violence appeared in each copy of the questionnaire thus:

Table 2.4 Forms of Gender based Violence, the struggle

1.	Physical abuse	60
2.	Rape	40
3.	Psychological abuse	35
4.	Starvation	45
5.	Denial of participation in decision making	40
6.	Termination of communication	30

Interpretation of the table above is almost impossible. However, if you are given the sample to be 150 Note that it is wrong to say sample population. Sample represents population though smaller, you can now observe that 60 units out of 150 units mentioned physical abuse. The percentage therefore, is $60 \div 150 \times 100$ - when this is completed the seven options will have weights that can be used to order response.

Table 3.4 Forms of Gender based Violence

Variables	Frequency	Percentage
-----------	-----------	------------

Physical abuse	60	40
Rape	40	27
Psychological abuse	35	23
Starvation	45	30
Denial of participation in decision making	25	16
Termination of communication	20	13

The table above is more meaningful because it tells the weight of each variable in relation to the total. Statistics showing that registered voters who are members of the People’s Democratic Party in Rivers State is 300, 000 does not say much until we note what percentage it represents of total number of registered voters in the state.

Note

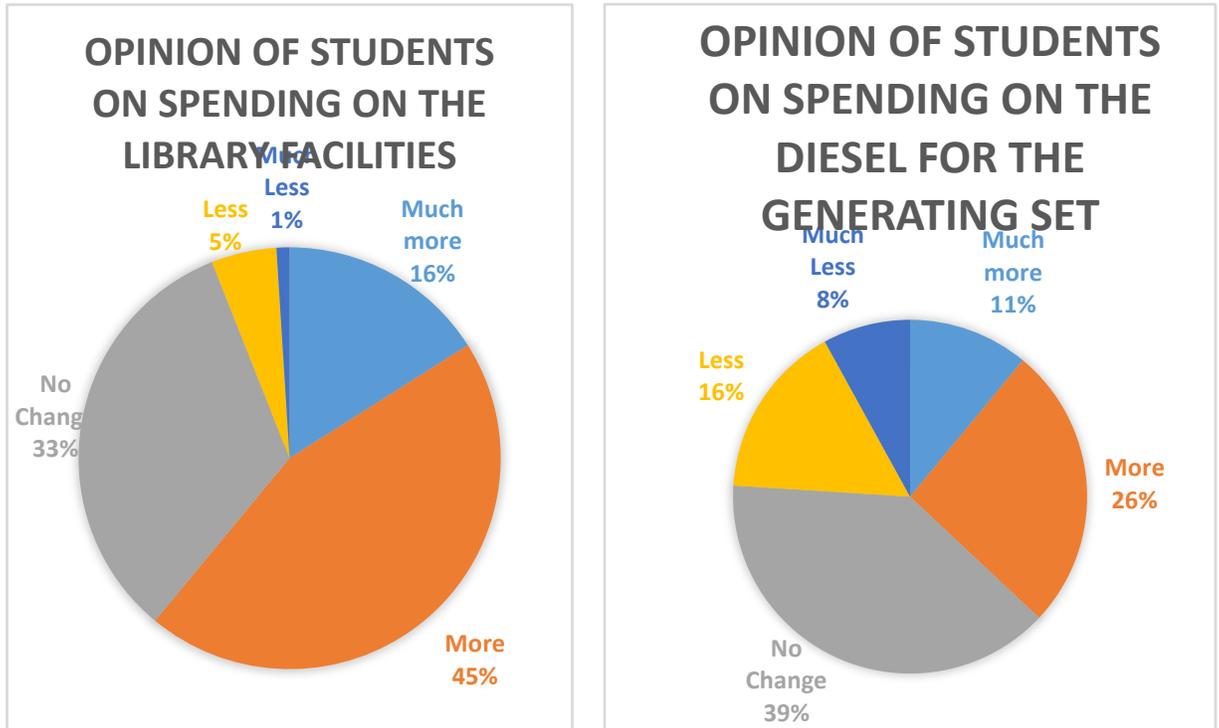
- * Every table should have a title at the top.
- * Do not use questions. Use questionnaires as titles.
- * It is not necessary to say (Source: Field Work 2020) Every scholar knows you are interpreting data from fieldwork.
- * When scholars refer to you work, then they will provide reference for it.
- * Do not cite yourself when analyzing data during research.

Graphs

Graphs can be used to further display statistics recorded as percentages. Graphs are visual impression of data. Some people find them more fascinating than number and this understand them easily. The pie chart is one of the graphs frequently used by social scientists. The pie is a quantum where frequencies or percentages are presented as segments of the pie. Different colours represent the segments. Alternatively designs chosen by the research achieve the same results. The sum of the pie is 100 percent. Legends of graphs are always noted under the graph. Source will be necessary if the graph is called from existing documents. If you used data from your field work to plot the graph source, it is not necessary.

PieChart

t

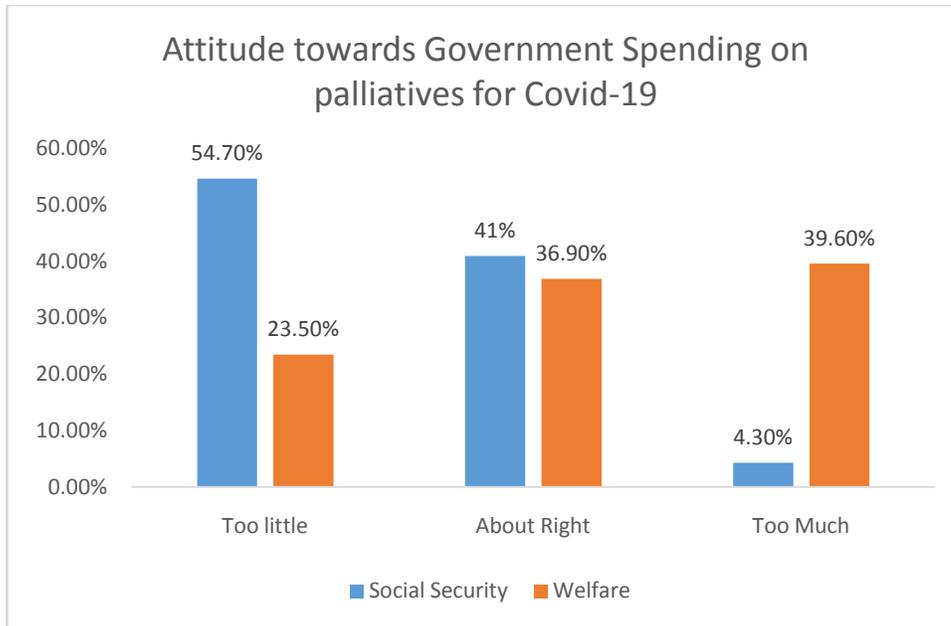


Opinion of Students on spending on the library and Diesel for sets generator.

The pie chart is easy to understand. You have done your coding on a particular item in questionnaires you have also coded the response using frequency and percentage distribution. The entire responses represent 100%. The different states percentages in the responses will affect how that be reflected if you are cutting a pie. The percentage reflected in the category of response will determine the size of the pie.

Bar Chart

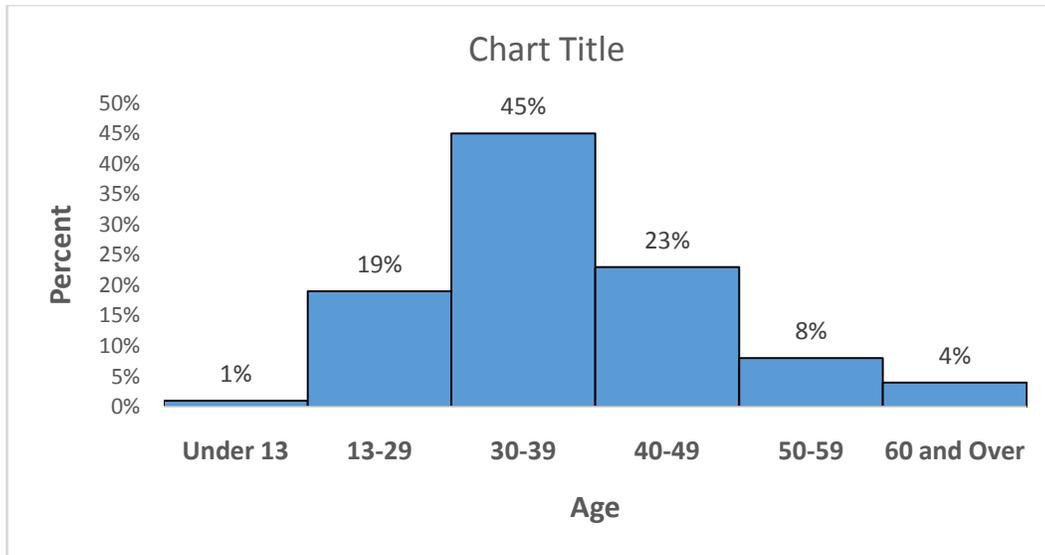
Attitude toward Government Spending on Social Security and Welfare



The bar chart enables a researcher to present ordinal and nominal data. It also accommodates the presentation of two or more distributions which is not possible with the pie chart. Categories of each variable are labeled along the horizontal axis. Thereafter, rectangles of equal width are drawn to represent the categories. The frequency of each category is indicated by the height of rectangle.

Histogram

When data collected using a questionnaire demonstrate intervals or ratio level, the histogram is used to describe them. using rectangle that are continuous, along the horizontal zone. The percentage in the frequency is shown in the light of the rectangle reflecting interval.



When frequency distributions are displayed as intervals or ratio, researchers use histograms to convey understanding. The rectangles constructed for this do not stand as distinct units' lines but form part of a continuum with intervals displayed along the horizontal axis. The percentage of the interval is reflected in the heights of the rectangle. The histogram can only contain information on one variable.

4.0 CONCLUSION: Data management plans allow the researcher to code data and make them ready for analysis. In descriptive analysis indices are developed from data collected and arranged in formats which enables the researcher to describe information in frequencies and percentages to aid meaningful interpretation. Such frequencies and percentages are used to present data in the form of pie charts, bar charts, graphs or histograms. It must be emphasized that the absence of rigorous mathematical calculations as implied in quantitative analysis does not diminish the value of any study. A good and appropriate use of descriptive analysis enables a researcher to communicate with other researchers and students. Too much statistical rigor renders research autistic and lowers the value of the outputs of such research.

5.0 SUMMARY

Quantitative data analysis: the use of statistics to simulate and test for relationships during research.

Secondary data analysis: analysis of processed data or data collected by others.

Frequency distribution: patterns of response to questions.

Graphs: used for displaying connections between frequencies and percentages.

Pie charts: a display in differences in percentages or frequencies.

Bar chart: nominal or ordinal data displayed in the form of bars.

Histogram: used to indicate frequency distribution of interval or rat

Qualitative data analysis: Deductive research using questionnaires and interviews, outcomes proactively decided.

6.0 TUTOR MARKED ASSESSMENT

- 1) Compose a table of responses from a sample and demonstrate the data using percentage distribution, pie chart and histogram.
- 2) Coding can be inductive or deductive. Discuss.
- 3) List and discuss different methods of storing data.

7.0 REFERENCES

Kurt Lewin, *Field Theory in Social Science* (Westport, Conn.: Greenwood Press, 1975) p. 12.

Margaret, L.A. and Howard, F.T. (2004). 3rd(ed). *Sociology. Understanding a diverse society*. Eve Howard Publisher.

Mueller et al., *Statistical Reasoning in Sociology*, p. 248.

Nachmias Chava, F. and Nachmias, D. (1996) 6th(ed). *Research methods in the social Sciences*.

Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 970), p. 10.

UNIT 2 QUANTITATIVE DATA ANALYSIS.

- 1.0 Introduction.
- 2.0 Objectives.
- 3.0 Main Content.
 - 3.1 Median
 - 3.2 Chi-square.
 - 3.3 T-test
 - 3.4 Correlation Analysis
 - 3.5 Regression Analysis
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 References

1.0 INTRODUCTION

Quantitative data analysis: the view from above relies heavily on statistics. These may assume the forms of chi-square, t-test, correlation or regression analysis.

Qualitative data analysis produces details about people in real life situations. It describes relationships using data collected during field work. It is not inferior due to lack of sophisticated mathematical analysis.

QUANTITATIVE ANALYSIS

Statistics are used for testing hypotheses and make empirical findings and generalizations. The generalizations represent inferences (statement which predict the behaviour or characteristics of a population. The statistical measures that can be used for analyzing data are many. Here we shall describe a few of them. Further information can be made available through internet search on the social science data analysis package.

3.1 MEDIAN

A median is the distribution point in percentages or frequencies which indicates the middle splitting the distribution into two equal values. The lowest is at the bottom and the highest is at the top. The median is the “observation”. The frequencies or percentages must be arranged in order of magnitude for us to locate the median.

Table 5.4

Pattern of student's accommodation

a.	sharing in hostel	3500
b.	One- bed occupant in hostel	3000
c.	Self- contained off campus stored	2400
d.	Self -contained sole occupant	2000
e.	2- bedroom flat shared	1800
f.	One bedroom flat shared	1500
g.	2- bedroom flat sole occupant	1400
h.	Boys quarters lecturer's house	2700
i.	One- bedroom flat sole occupant	1200

The median above is calculated from a group frequency. In an ungrouped frequency the median

$$MM = \frac{X_1 + X^{11}}{2}$$

Table 6.4

Frequency of religious groups African traditional worship 2

Protestants

Catholics 15

The χ^2 Distribution

When a sample is drawn repeatedly of size N from a normal population with standard deviation (σ) and compute the sample statistics χ^2 for each of the samples

drawn, we can obtain a sampling distribution of the statistic χ^2 . This distribution is called chi-square distribution and it is obtained from:

$$Y = y_0(x^2)^{1/2} (v - 2)e^{-1/2} \times 2$$

Where

$$\chi^2 = \frac{(x - \bar{x}) + (x_n - \bar{Y})}{\delta^2}$$

$v = N - 1$ i.e. the number of degrees of freedom

$e =$ a constant approximating 2.7183

$y_0 =$ a constant depending on v such that total area under the curve has probability of 1.00 or 100%.

3.2 The Chi-square Test

Chi-square test is a non-parametric test which we use in determining the degree of association or depending relationship between two variables without in any way implying a causal relationship between them (Udofia, 2003). A good example is when we try to find out if tracks influence or are associated with winning race.

Example 1: The data below represent track positions and the number of wins recorded during a specific time.

Track position 1 2 3 4 5 6 7

Number of wins 20 14 16 12 8 2

Solution: Mean (\bar{X}) number of wins = $20 + 14 + 17 = 17 + 16 + 12 + 8 + 2 = \frac{89}{7} = 12.7$

\therefore The mean (\bar{X}) number of wins become the expected frequency

$\chi^2 = \sum \frac{(O-E)^2}{E}$ becomes

$$\begin{aligned} & \frac{(20 - 12.7)^2}{12.7} + \frac{(14 - 12.7)^2}{12.7} + \frac{(17 - 12.7)^2}{12.7} + \frac{(12 - 12.7)^2}{12.7} \\ & \quad + \frac{(8 - 12.7)^2}{12.7} + \frac{(2 - 12.7)^2}{12.7} \end{aligned}$$

$$= 4.19 + 0.13 + 1.46 + 0.86 + 0.04 + 1.74 + 9.0 = 17.43$$

$$\therefore \chi^2 = 17.43 = \text{calculated value}$$

$$D/F = N - 1 = 6 \text{ at } 0.05$$

We enter the table of χ^2 distribution at $v = 6$ at 0.05

Table value = 12.592

Since the calculated value is greater than the table value, we reject H_0 (the null hypothesis) that tracks do not influence the outcome of races.

Example 2: Assuming that we want to find out whether or not there is a dependency relationship between the memberships of two political parties - the Republican Party (RP) and the Democracy Party (DP) and the ideological orientation of the members. We interview 50 members of RP and 42 of the DP and obtain the following.

	DP	RP	Total
Socialism	26	10	36
Capitalism	06	38	44
Communism	10	02	12
Total	42	50	92

The above table in which the observed frequency occupies the rows (h) and columns (k) are called h x k tables or contingency tables.

Solution:

We put the H_0 and H_1 thus:

H_0 : Membership of the two political parties is independent of the ideological orientations of the members.

H_1 : It is

Here, you start by working out the proportion of party members in support of each ideological orientation, these will form four expected values or frequencies.

$$DP(\text{socialism}) = \frac{42 \times 36}{92} = 16.42$$

$$RP(\text{socialism}) = \frac{50 \times 36}{92} = 19.56$$

$$DP(\text{capitalism}) = \frac{42 \times 44}{92} = 20.09$$

$$RP(\text{capitalism}) = \frac{50 \times 44}{92} = 3.91$$

$$DP(\text{communism}) = \frac{42 \times 12}{92} = 5.49$$

$$RP(\text{communism}) = \frac{50 \times 12}{92} = 6.53$$

Remember that $\chi^2 = \sum \frac{(O-E)^2}{E}$

$$\begin{aligned}
&= \frac{(26 - 16.43)^2}{16.43} = 5.59 \\
&\frac{(6 - 20.09)^2}{20.09} = 9.88 \\
&= \frac{(10 - 5.49)^2}{5.49} = 3.70 \\
&\frac{(10 - 19.56)^2}{19.56} = 4.67 \\
&\frac{(38 - 23.91)^2}{23.91} = 8.30 \\
&\frac{(02 - 6.52)^2}{6.52} = 3.13 \\
&= 5.59 + 9.86 + 3.70 + 4.67 + 8.30 + 3.13 = 35.25 \\
&x^2 = 34.67 = \text{calculated value}
\end{aligned}$$

$$\begin{aligned}
D/F &= (\text{Number of rows} - 1) \times (\text{Number of column} - 1) \\
&= (3 - 1) \times (2 - 1) = 2 \text{ at } 0.05
\end{aligned}$$

We enter the table of x^2 distribution at $v = 2$ at 0.05

Table value = 5.991

Decision: The calculated value is greater than the table value. We therefore reject H_0 at 0.05 and accept H_1 that membership of the two political parties is dependent on their ideological orientations.

3.3 T-Test

The T-test is used to compare two sample distributions which should be approximately normal. The data collected on T-test is collected either on interval or ratio scale of measurement for two sample tests, the student t-test is given by:

$$\frac{1\bar{X} - \bar{Y}1}{\sqrt{\frac{\delta 0C^2}{Nx} + \frac{\delta y^2}{C}}}$$

Where:

t = student t-test

x = sample No 1

y = sample No 2

δx^2 = a square of the standard deviation of x

δy^2 = a square of the standard deviation of y

Nx = sample size of x

Ny = sample size of y

The higher the value of t, the higher the discrepancy between the means of the sample and the population.

Example: A researcher wants to investigate whether or not a significant difference exists in the number of automobile accidents recorded in two local government area x and y. The following data was collected within a 6 year period.

$$x = 4,3,4,2,2,3$$

$$y = 1,2,2,3,2,2$$

1. Compare the two samples using t-test and establish 95% confidence interval for your result.

Solution

1. We arrange the data and formulate H_0 and H_1

X	$(X - \bar{X})^2$	Y	$(Y - \bar{Y})^2$
4	1	1	1
3	0	2	0
4	1	2	0
2	1	3	1
2	1	2	0
3	0	2	0
$\Sigma = 18$	$\Sigma = 4$	$\Sigma = 12$	$\Sigma = 2$
$\bar{X} = 3$		$\bar{Y} = 2$	

H_0 : There is no significant difference in the number of automobile accidents in the two LGAs or $\bar{X} = \bar{Y}$

H_1 : There is a significant difference in the number of automobile accidents in two LGAs or $\bar{X} \neq \bar{Y}$

Using the formula

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{\delta x^2}{Nx} + \frac{\delta y^2}{Ny}}}$$

We obtain: $\delta x = \sqrt{\frac{\sum(X-\bar{X})^2}{N-1}} = \frac{4}{5} = 0.9$

$$\delta y = \sqrt{\frac{\sum(Y-\bar{Y})^2}{N-1}} = \frac{2}{5} = 0.6$$

The t formula above becomes:

$$\frac{3-2}{\sqrt{\frac{(0.9)^2}{6} + \frac{(0.9)^2}{6}}} = \frac{1}{\sqrt{0.14 + 0.06}}$$

$$= \frac{1}{\sqrt{0.20}}$$

$$\therefore t = 2.22 = \text{calculated value}$$

$$D/F = N_Y + N_X - 2 = (6 + 6) - 2 = 10 \text{ at } 0.05$$

Table value = 2.23

Decision: Since the calculated value is lower than the table value, we accept the H_0 and reject H_1 , meaning that there is no significant difference in the number of automobile accidents in the two LGAs.

Exercise 1

The following data represents the number of bore-holes in eight villages in two communities.

A	B
42	47
20	13
20	13
9	9
7	5
1	4
0	4

- Compute student's value
- What is the table value of t at 0.05?
- Should H_0 be rejected?

Exercise 2

The data below are measurements drawn from the sample population.

A	B
18.5	15.7
40.7	13.5
29.0	7.7
17.5	7.5
30.5	11.6
52.3	9.9
19.0	3.4
70.5	20.5
40.2	30.9
65.0	45.5

- Obtain student's t value
- What is the table value at 0.05?
- Should H_0 be accepted?

Exercise 3

Sociology students want to find out if there is a dependency relationship between a person's ethnic group and his religious affiliation.

	Ethnic Group		
	A	B	C
Christian	147	82	197
Moslems	57	192	73
Traditional worshipers	4	60	81

- Obtain χ^2
- Is the χ^2 significant at 0.05?
- Should H_0 be accepted
- Calculate the coefficient of contingency

3.4 Correlation Analysis: Spearman's Ranked.

Correlation analysis measures the strength of the relationship variable (Udofia, 2003). Here, we are not saying that one variable causes the other, but we are only interested in the existence or absence of a linear or non-linear relationship between them.

A correlation coefficient of -1 indicates a perfect negative or inverse relationship between the variables. That is, that an increase in one variable tends to be associated with a decrease in the other. This is depicted graphically as:

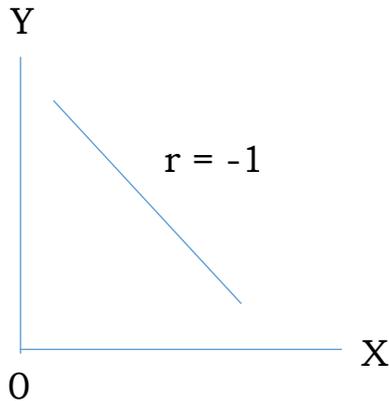


Fig 1: Perfect negative correlation

A correlation coefficient of 1 indicates a perfect positive or direct relationship between variables. That means as one variable increases, the other also tends to increase. This is shown below in the graph.

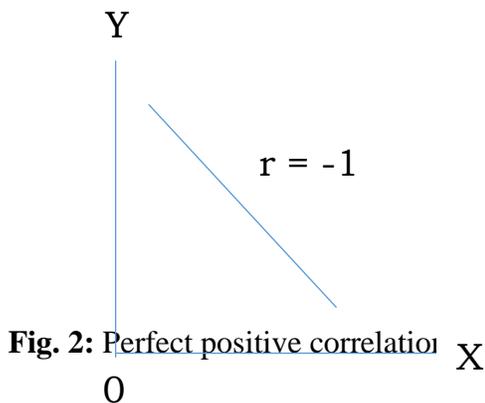
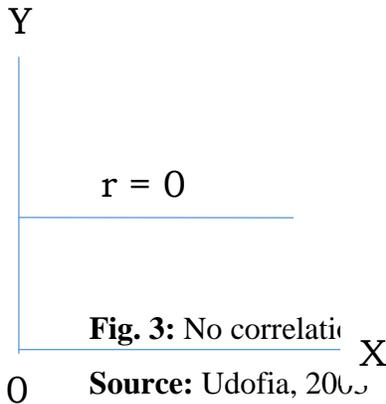


Fig. 2: Perfect positive correlation

A correlation coefficient of 0 indicates the absence of a relationship between the variables of interest; this is shown on the graph below.



Spearman’s rank order correlation is based on the relative ranks of values and not on the actual values themselves. It tries to establish whether there is any form of association between two variables when they are arranged in ranked order. The technique is appropriate for sample sizes >10. For this technique, the coefficient r_s is obtained from:

$$r_s = \frac{1 - 6 \sum d^2}{N^3 - N}$$

- Where:
- r_s = Spearman’s ranked correlation
 - d = Difference between the ranks
 - N = Sample size

Example: Assuming two sociology students X and Y ranked ten cities of the world in order of preference as shown below:

Cities	Student x	Student y
California	4	1
Lyons	2	3
Kumasi	3	10
Cairo	6	7
Ibadan	1	4
Brazilian	7	6

Kano	5	2
Sydney	8	5
Lusaka	9	9
Monrovia	10	8

Compute the spearman's rank order correlation coefficient and test for the significance of the coefficient obtained.

Solution

Cities	Student X	Student Y	d	d ²
California	4	1	3	9
Lyons	2	3	-1	1
Kumasi	3	10	-7	49
Cairo	6	7	-1	1
Ibadan	1	4	-3	9
Brasilia	7	6	1	1
Kano	5	2	3	9
Sydney	8	5	3	9
Lusaka	9	9	0	0
Monrovia	10	8	2	4

The formula:

$$r_s = 1 - \frac{6 \sum d^2}{N^3 - N} \text{ becomes}$$

$$\begin{aligned}
 &= 1 - 6 \frac{(92)}{10^3 - 10} \\
 &= \frac{1 - 6 \times 92}{1000 - 10} \\
 &= 1 - 0.56 \\
 &= 0.44
 \end{aligned}$$

This indicates a fairly strong positive relationship or association. It shows the similarity in the way the two students perceive the 10 cities.

We now test for the significance of the high correlation using:

$$t = rs \sqrt{\frac{N - 2}{1 - (rs)^2}}$$

H₀: Correlation is not significant

H₁: Correlation is significant

So, t = 0.44

$$\sqrt{\frac{10 - 2}{1 - (0.44)^2}}$$

$$0.44 \sqrt{\frac{10 - 2}{1 - 0.1936}} = 0.44 \times 3.14 = 1.38$$

Calculated t = 1.38

$$D/F = N - 2 = 10 - 2 = 8$$

Table value = 2.31

Decision: Since the calculated value is less than the table value, we accept the H₀ that the correlation could have arisen by chance.

Exercise 1

X	Y
8	2
11	4
1	6
4	10
2	12
7	11
3	8
10	3
12	7
5	9
6	1
9	5

- Obtain spearman's correlation coefficient
- What is the calculated t?
- Should H₀ be accepted at 0.05?

Exercise 2

From het ranked data below:

X	Y
1	5
3	4
8	3
2	8
5	2
6	1
4	7
7	6

- Obtain spearman's correlation ties
- What is the calculated t?
- Should H_0 be accepted at 0.05?

3.5 Regression Analysis

Regression analysis enables researchers to investigate causal relationship between variables. It can also help to measure the effect of one variable on another. It can also predict values of the dependent variable given values of the independent variable (Udofia, 2003). The important skill you need to have is the ability to distinguish between the independent variable (X) and the dependent variable (Y). For a simple linear regression analysis, we say that Y depends on X, which implies that $Y = f(X)$: read as Y is a function of X

Where:

Y = the dependent variable

X = the independent variable

A simple linear regression is given by:

$$y_o = a + b_x + e$$

Where:

y_o = the estimated value of the dependent variable

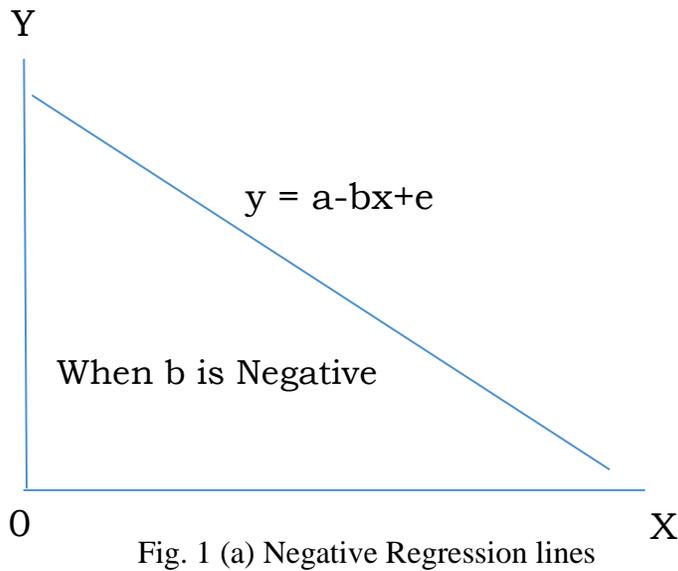
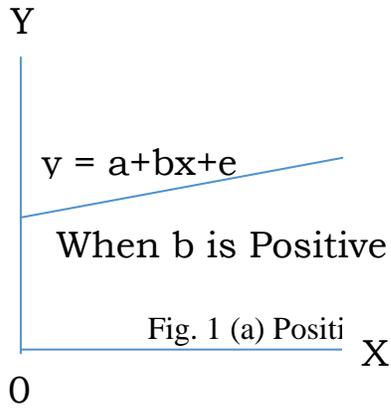
X = the value of the independent variable

a = the y intercept i.e. where the regression line touches the y axis

b = the regression coefficient or slope

e = the residual or random error

the nature of the slop depends on the sign of b as shown below.



Example 1: the data given below represent output (Y) and farm size (x) for one region

Y (Metric tons) = 12, 16, 9, 22, 32, 17, 10, 14, 19, 11

X (Hectre) = 2, 3, 1, 6, 9, 3, 2, 2, 4, 3

To investigate the effect of farm size with the regression analysis by applying this formula

$$Y_o = a + bx + e$$

Where

$a = \bar{y} - b\bar{x}$; and

$$b = \frac{\sum(x-\bar{x})(y-\bar{y})}{-\sum(x-\bar{x})^2}$$

From the above formula, we draw the table below:

Output (Metric tons)	Farm size (Hectres)	$Y-\bar{Y}$	$X-\bar{X}$	$(X-\bar{X})(Y-\bar{Y})$	$(Y-\bar{Y})^2$	$(X-\bar{X})^2$
Y	X					
12	2	-4.2	-1.5	6.3	17.64	2.25
16	3	-0.2	-0.5	0.1	0.04	0.25
9	1	-7.2	-2.5	18.0	51.84	6.25
22	6	5.8	2.5	14.5	33.64	6.25
32	9	15.8	5.5	86.9	249.64	30.25
17	3	0.8	-0.5	0.4	38.44	0.25
10	2	-6.2	-1.5	9.3	4.84	2.25
14	2	-2.2	-1.5	3.3	7.84	2.25
19	4	2.8	0.5	1.4	27.84	0.25
11	3	-5.2	-0.5	2.6	27.04	0.25
$\sum = 162$	$\sum = 35$			$\sum = 142$	$\sum = 431.6$	$\sum = 50.5$
$\bar{Y} = 16.2$	$\bar{X} = 3.5$					

First, we obtain b from

$$b = \frac{\sum(x-\bar{x})(y-\bar{y})}{-\sum(x-\bar{x})^2} = \frac{142}{50.5} = 2.81$$

We then obtain a from

$$a = \bar{y} - b\bar{x} = 16.2 - 2.81(3.5) = 6.36$$

The regression equation of $y = a + bx + e$ becomes $y = 6.36 + 2.81(x) + e$

4.0 CONCLUSION

The use of quantitative data analysis tools ensures statistical rigor in establishing causality relationship.

5.0 TUTOR MARKED ASSESSMENT

1. Example 1

Is gender independent of education level? A random sample of 395 people was surveyed and each person was asked to report the highest education level they obtained. The data that resulted from the survey is summarized in the following table:

	High School	Bachelors	Masters	Ph.d.	Total
Female	60	54	46	41	201
Male	40	44	53	57	194
Total	100	98	99	98	395

2. Are gender and education level dependent at 5% level of significance? In other words, given the data collected above, is there a relationship between the gender of an individual and the level of education that they have obtained?

1. A sample of 100 voters are asked which of four candidates they would vote for in an election. The number supporting each candidate is given below:

Higgins	Reardon	White	Charlton
41	19	24	16

Do the data suggest that all candidates are equally popular? [Chi-Square = 14.96, with 3 d.f.: $p < 0.05$].

6.0 REFERENCES

Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.

Karl Popper, *The Logic of Scientific Discovery* (New York: Science Editions, 1961), p. 106.

Kurt Lewin, *Field Theory in Social Science* (Westport, Conn.: Greenwood Press, 1975) p. 12.

Moser, c. and Kelton, G. (1974) *survey method in social investigation* (Second edition) The English Language book society and Heinemann Educational books Britain.

UNIT 3 CONCLUDING RESEARCH

- 1.0 Introduction
- 2.0 Objective
- 3.0 Main content
 - 3.1 Discussion of findings
 - 3.2 Summary
 - 3.3 Abstract
 - 3.4 Contributions to knowledge
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment
- 7.0 Reference

1.0 INTRODUCTION

The concluding part of research is as important as the data analysis section. It is in the concluding chapter that the audience can identify the findings, situate the findings within previous findings, isolate the recommendations particularly those that have policy implications, develop patents which secure the contribution to knowledge of a researcher and isolate the recommendations that can be used to engineer development. This unit, builds capacity in students to identify the findings of the study, discuss the findings and use them to propose recommendations. The findings may constitute contributions that will require patenting. This is necessary where the idea generated can earn money for the originator.

Concluding research is as important as commencing the process. Some scholars could read the concluding part of your work and derive almost the same knowledge as those who read the entire report. The analyses of data enabled you to take decisions on hypotheses or answer study questions. These constitute your findings which should be clearly stated as such before you embark on discussion of findings. At this point you can compose your Abstract. Kindly note that the Abstract is part of the initial pages in research report. Next you can compose the summary and conclusion of the study and thereafter outline your recommendations and contributions to knowledge.

2.0 Learning Objectives

- Ability to discuss findings of a study
- Summarizing a study properly
- Skills in formulating an Abstract
- Contributions to knowledge

It is important that a criminologist discusses his findings to situate them within the context of existing findings in his area of research. This once more justifies the study and accords it a distinct position. The Abstract can be written at this point using the format provided here.

Findings and discussion of findings. The findings of a study arise from the answers to the study questions or testing of hypotheses. The hypotheses that are rejected or accepted after testing constitutes findings of the study. It is advisable to identify and bullet the findings of a study before discussing them.

3.1 DISCUSSION OF FINDINGS

You were advised to review literature under themes determined by your study problem and study objectives. If you followed this instruction, the previous findings by scholars on the relationship between the determining and determined variables in each objective will be identifiable. The result of hypothesis testing or answering of each research question in each objective will be tailored towards how your findings fits into a mold containing previous findings and how they represent new or current knowledge. You may thus identify three to five previous

findings and compare or contrast these to your finding on each objective. You should then be in a position to say my finding agrees with the finding of Otodula (2012) on the issue” or my finding disagree with the finding of Akeem 2013.

Furthermore, the key points of agreement and disagreement will be elucidated and discussed. Reference could be made to the study locale or differences in the sample to justify the disagreement or conformity in the findings.

Example: A study was done in Port Harcourt to determine whether there was a significant difference between unemployment and crime during periods of economic boom and economic crisis (1970-1990). If the finding that unemployment and crime levels are higher during the period of economic crisis, you can use the same data and arrive at a conclusion contrary to the finding. A variable that was not considered significant during the first study could be introduced to explain the difference in findings. In discussing your findings, you use the review of literature on the objectives of your study to organize previous knowledge and situate your findings within existing knowledge. This exercise enables other researchers to evaluate your work critically and express this. In return you may re-evaluate your position or defend it. This is what makes academics prosper.

A summary usually 250-350 words detailing the key areas of your research

If the summary of your work is well written, it can serve the same purpose as the entire study report. We shall discuss appropriate method in writing your summary and the conclusion of the study.

3.2 SUMMARY

Some researchers still use the old and elementary style of summarizing a study. A summary of a study, contains, a concise information as is contained in a study report of more than 360 pages. The summary may 4-6 pages. The summary is a longer version of the abstract.

Example 1

This research project addressed the issue of unemployment and crime during economic boom and recession. In chapter one, we stated the problem and raised hypotheses, study questions and objectives of the study. we also defined the concepts of the study. In chapter two, we reviewed the relevant literature. Furthermore, we reviewed the relevant theories and chose the one most appropriate for the study.

In chapter three, we selected the study design. After this we explained the two major sources of data, and how the data was collected. We also selected a sample. In chapter four, the data analysis was done by testing the hypothesis after using simple percentage to describe data collected. The chi-square method of analysis was used to test the hypotheses. The findings of the research work were presented in this chapter too. In chapter five, the study was summarized. We made recommendations and concluded the work.

Problems of this method of writing summary

- If after reading this summary you are asked “What are the findings of the study? Your response, since you have not read the main, will be “it is contained in chapter four of the document”. A summary should enable another researcher or scholar to understand and discuss your work just as effectively as he would after reading the entire report.
- The summary above amounts to over emphasizing the obvious. As a researcher you are expected to go through the process you have described. Are you expected to review irrelevant literature and theories? Review literature and theories and delete the word relevant.
- It is not possible to identify what the researchers’ conclusions or contribution to knowledge are from the summary above.

Do not use this format to summarize your study. examine the sample below and not the critical differences.

Example 2

Summary of the Study.

The study focused on the prevalence of unemployment and crime during economic boom and depression periods. Several scholars have closely associated

higher prevalence of unemployment and crime during economic depression than economic boom. We used the work of Okeke (2017) where the scholar averred that the rate of unemployment and crime are higher during economic boom as our point of departure. The researcher aimed in the study, at using data from current statistics to join in the debate. The scholar hypothesized as follows:

- There is a relationship between shrinking of economic activities and the level of unemployment.
- There is a relationship between the level of unemployment, implementation of entrepreneurship programmes and the rate of crime.

The research adopted the survey method. Library research enabled the investigator to collect primary data while the questionnaire interview and FGD were used to collect data during the field work. From the review of literature, the researcher identified three major strands of thought. First Ubakis (2015) Eke (2016) and Hassan (2016) have strongly argued that unemployment and crime rates rise during economic depression. Second, Ayim (2011), Adekola (2015) and Adeniye (2017) posit that unemployment and crime rates increase in a corresponding order with economic boom. Third more recently, Odetola (2017) and Nwabueze (2018) used the implementation of entrepreneurship programmes to support the view that crime and unemployment rates reduce during economic depression. This study falls with this third strand.

The sample of the study consisted officials of the Ministry of Employment and Youth Development, adults within the 18-50 age range and officers of the Nigeria Police Force. The simple random sampling and stratified random sampling techniques were used to derive a sample of 260. The researcher also used established validity rates to ensure reliability of data.

Statistics collected during fieldwork were coded and described using bar charts and graphs. The chi-square tests resulted in the rejection of hypothesis one. Hypothesis two was accepted using the same level of significance. The study revealed that unemployment and crime rates can be moderated with entrepreneurship programmes. This finding agrees with the previous findings by

such researchers as Nwabaeze (2018) and Odutola (2017) The researcher, considering the finding of the work recommended that effective entrepreneurship programmes designed by the government should be used during economic recession to mitigate the negative impact of unemployment on crime.

In conclusion, the study has unveiled the relationship between unemployment and crime during economic boom and recession. Entrepreneurship programmes have been found to reduce the surge inwards in the rates of employment and crime during economic recession.

Note, some scholars write the conclusion before recommendations. It is preferable to make the recommendations and then ask; After all is said and done what is my position on the problem of the study? This is your conclusion written in prose do not bullet or number your conclusion. It is the final statement of your overall position.

3.3 ABSTRACT

Abstract 1

The main aim of this paper is to x-ray in all and some of its ramifications the impediments circumventing the successful realization of self-reliance in Nigeria vis-avis attainment of national security. This is because a critical assessment of the sociological, political, economic, and educational terrain of the nation clearly brings to the fore that for the Nigerian nation to become self-reliant cum well secured nations that is jealously guarded by nationalistic and patriotic Nigerians, then the increasing rate of poverty, corruption (that is seemingly “institutionalized”), unemployment, poor power generation, the banking sector crisis and the retrogression of the educational system must be checkmated. However, if the issues raised in this paper are not critically digested and addressed, the question of national security will be an exercise in futility.

Abstract 2

*The inmates of the Nigerian Penal institutions are in dire need of restitution. This is not unconnected with the fact that most ex-convicts go back to their nefarious crime thereby making caricature of the reformatory claims of the penal institution. The paper therefore, tries to suggest likely solution to such problem(s) such as the re-invigoration of vocational and technical education that must be infused with some basic legal theories and concepts by way of making the studying of the country's institution with regards to the implication of murder, trespass and misfeasance to mention but a few. Others are registering and protecting the patent right and trademarks of ingenious inmates and punishing senior civil servants that fail to perform their primary functions of implementing government policies among others. (Nigerian Journal of Professional Research in Pedagogy and Psychotherapy, Vol. 1, No. 5, May, 2002*Network of Seasoned Nigerian Academics*)*

Examine the Abstracts above. You will observe that they do not provide answers to such questions as;

What is the research problem?

How did you go about solving it?

What are your findings?

What are your recommendations?

What is your conclusion?

There is no room for story telling at the beginning of an Abstract. Start by indicating the research problem as encapsulated in your topic, Eg. This study examined the nexus between street hawking and the educational achievements of children in Port Harcourt.

Thereafter, outline the statement of the problem along with the aim and the thesis of the study. Next, answer the second question: How did you attempt to solve the problem? To answer this question, you should make reference to a

theme in the literature review close to your thesis and the method used for the research including population, sample and data collection techniques.

What are your findings? Begin by stating how data were analyzed and proceed to mention your findings and recommendations. Ensure that the recommendations flow from the findings. The last question: What is your conclusion? is answered by stating a clear position discernible from your findings. The Abstract below is a good example;

Abstract3

This quantitative research study was conducted to illustrate the relationship(s) between social media use and its effect on police brutality awareness. In 2015, social media was used to assist in revealing an act of impulsive police brutality on an adult black woman in Waller County, Texas. This act was one of a few examples of a substantial number of law enforcement officers around the United States and other countries that are abusing their power by using excessive force against citizens without penalty. The study found there is a relationship between social media use and its impact on police brutality. The study also found that social media gave a voice to people who may have feared isolation and/or negative consequences against police brutality. Over 100 undergraduates at Bowie State University in Maryland completed a survey questionnaire instrument. The instrument consisted of 10; of which 2 were directly related to the hypothesis. The author's result of data analyses presented that there is a significant relationship between independent and dependent variables.

The style of writing abstracts differs according to specifications by universities, professional journals and other institutions. The words in an Abstract may not exceed 350, typed with 1 line spacing without paragraphs. Some publishers may require paragraphs. At the end of the Abstract, list keywords, usually derived from the concepts in your topic.

SUMMARY:The summary of your study tells the story of the research you have done in a concise form.

3.4 CONTRIBUTION TO KNOWLEDGE

Most criminologists harbor the pedestrian view that patents are only necessary when an inventor designs a new product. Knowledge can be patented. New products may also arise from knowledge that is becoming considerable under globalization.

Examples of contribution to knowledge

Remember that you reviewed literature and identified a gap in your statement of the problem, what is the gap? Furthermore, examine your summary of literature review and justification of the study, all stem from the gap in knowledge stated in different forms. If after the study you have filled the gap, that with which you filled the gap is your contribution to knowledge. There may be knowledge gained through discussion of findings which provides superior argument to one that is existing or serendipity these shall be included as contributions to knowledge.

A researcher should be humble in moderately stating his/her contributions to knowledge. It is not a section for making unverifiable claims. The contributions are thereafter processed to determine what can be patented.

Example:

You have concluded a study on ATM use and kidnapping in Kaduna. Some of your findings are:

- Kidnappers use the ATM cards of their victims to feed and entertain themselves while waiting for the ransom to be paid.
 - Kidnappers use head gears or scarfs to disguise their faces while making ATM withdrawals.

Following the second finding you recommend ATM camera that can only use face recognition for payment.

The camera system currently in use does not use face recognition. The idea therefore is yours. You may be illiterate in camera designing. However, the idea that originated from you should be properly registered as a patent while camera designers will incorporate your idea from this you can make decent living.

4.0 CONCLUSION: You have successfully completed the critical logical steps in conducting research. You are expected to use the knowledge gained to earn a living not by writing projects for other students but by attracting grants.

5.0 SUMMARY

Recommendations of the study: A set of statements detailing what you proposed as solutions to the research problems identified.

Contributions to knowledge: What you produced from your research to fill the knowledge gap identified in your statement of the problem.

Conclusion: A statement or set of statements which identify your position on the research problem

6.0 TUTOR MARKED ASSESSMENT

- 1) Discuss the use of discussion of findings in a study.
- 2) How are recommendations derived from findings?
- 3) Give an example of a finding that can attract a patent.

7.0 REFERENCE

Graig, C., Donald, L. and Keller, S. (1997)7th (ed). Sociology. The McGraw Hill Companies Inc.

Ken Dall, D. (2003) 4th (ed). Sociology in our time. Wallworth Thomson Learning.

Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart and Winston, 1968); see also E. Y. Babad, J. inbar, and R. Rosenthal, "Pygmalion, Galatea and the Golem: Investigations of Biased and Unbiased Teachers," Journal of Educational Psychology, 74 (1982): 459-474.

Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 1970), p. 10.

Udofia, E.P. (2003). *Fundamentals of Social Science Statistics*. Gamma-Rays Publishing, Uyo.

William Kornblum, *Blue-Collar Community* (Chicago: University of Chicago Press, 1974).

Unit 4 WRITING FOR GRANTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Writing for grants
 - 3.2 Aim of the grant
 - 3.3 Introducing the proposal
 - 3.4 Checklist for introduction
 - 3.5 Structure of the proposal
 - 3.6 Avoiding plagiarism
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assessment

1.0 INTRODUCTION

One of the advantages of acquiring knowledge in research methodology especially in criminology is to be in a position where you can serve as a consultant in conducting research. To achieve this you require ability in writing proposals for grants. That is the focus of this unit.

2.0 Objectives: To build knowledge confidence and expertise in students for writing proposals to attract research grants.

3.1 WRITING FOR GRANTS.

This is the era of global collaboration in all sciences including criminology. The internationalization of policies has created opportunities for the application of

research across national boundaries. International agencies seek for data from across the globe on issues related to crime. This aspect of the course introduces students to grant writing. Beyond the research to earn grades and pass examinations, graduate students should be exposed early enough to entrepreneurship issues in criminology. Bearing in mind that these grants are mainly for collaborative research efforts, this unit is structured to acquaint students with knowledge on what to expect from collaborators to strengthen the request for grants.

Learning objectives introduction to grant

Objectives

- Outline the critical aspects of grant application
- List the letters needed for grant
- Know how to list expenditure for grant budget
- List the various types of grants
- Know the process of peer review of grant proposals.

Before setting on any idea for grant request ask a lot of questions. For instance, what is new in this idea? Is it exciting? If so, how important is it? How is it peculiar? Is the idea creative enough for make anyone want to invest money in it? What intellectual terrain does the ideas belong to? Can previous researches in the area draw from this? These questions will guide you to write the aim in such manner that the committee constituted to assess your application will appreciate your idea from different perspectives.

3.2 Writing the Aim

Whatever should make your grant request successful should be said within the context of the aim. Begin by answering the question; What do you want to do? Thus, statement on the aim commences with” What I want to do is to investigate how people are convicted by anti-corruption institutions in Nigeria as a result of collaboration with the INTERPOL. From this statement specific aims are derivable.

- Determine the number of cases prosecuted by the crime fighting agencies

- Analyze the percentage of the cases investigated with the cooperation of INTERPOL.
- Evaluate the success rate

If you decided on the idea above, the next question is how important is it? This is the aspect that will make your reader who has the money to award the grant or withhold his money. The importance of the idea must be lucid, concise and precise. You will need existing literature to place the fight against corrupt at the center of underdevelopment discourse in Africa, particularly Nigeria. You will need to draw attention to the prevalent practice whereby moneys acquired through corrupt practices are laundered through assumed untraceable deals involving international agents in Europe, Asia, North and South America etc.

Consequently, efforts to contain corruption limited to Nigeria yield little evidence to warrant prosecution and conviction thus the need to collaborate with INTERPOL. You will proceed to outline the benefits accruable to your research. It can be hypothesized that there exists a direct relationship between the level of corruption and the prevalence of poverty in Nigeria. Thus a reduction in the level of corrupt practices will unleash material resources required to engineer development and reduced poverty rate.

Your research will analyze the dynamics of the collaboration between the agencies that fight corruption in Nigeria EFCC, ICPC and INTERPOL. In the process the factors militating against maximum benefits from the joint efforts will be identified. Your study should progress beyond conviction to anticipated increased repatriation of looted funds. The estimated evaluation of the increased repatriation of funds should be objective.

3.3 Study Design

What is required at the level of grant proposal is a brief statement of the study design. If you are intending to do a descriptive study or randomized trial you state this. Proceed to state sources of data, if the agencies involved i.e. the Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission have data bases from which secondary data can be collected, this should be stated. Government parastatals involved in criminal justice system

concerning corrupt practices will also be visited for relevant records. Will data collection extend beyond the national boundaries? Where? What and how must be enumerated.

Write convincingly and use compelling words. The initial pages of your proposal are so critical that they should be designed to convince the granting agent to consider your proposal seriously. This is where the difference between project writing and proposal writing become apparent.

In writing a project, you assume the character of an impartial arbiter. You are considerably objective. In grant proposal writing, your aim is to convince an audience that what you intend to do is very important and therefore needs to be done without sounding ridiculous or overzealous. You must humbly outline what has been done and state the place of what you intend to do within this intellectual matrix.

The effectiveness or success story of collaboration with INTERPOL should be told along with the prospects of calculated increase in benefits.

3.4 Checklist for Introduction

- Are the goals of my proposed study stated in clear terms?
- Did I provide enough relevant background to the study?
- Does the novelty in my proposal stem from what has been done previously?
- Are there strategies that have been excluded in previous efforts?
- Did I elucidate where and how data will be collected?
- Have I made a clear statement on the choice of study design?
- Are there statements on the anticipated benefits derivable from the study?

3.5 Structure of Grant Proposals

- The title
- An abstract: Remember that the research has not been concluded. The abstract will state the problem, the strands of thought in the literature, the method that will be adopted from data collection to data analysis and anticipated outcomes.
- A research plan: An expanded version of how you intend to carry out the study beginning with the aims through the hypothesis, anticipated findings and innovations that are possible.

- Budget: An estimate of the financial requirements of the research, followed by justification of each sub head.
- Collaborations and co-investing that are needed. Institutional collaboration is vital for successful grant procurement. Research institutes and universities serves as effective collaborators. Co-investigators and collaborators may also implement the study with you. Do not list possible collaborators and co-investigators. Secure them in writing with official letter heads. Identify the staff in these organizations with corresponding qualification and experiences to participate in your study and also obtain their CVs.
- Human Subjects: Outline the problems you will encounter with the human subjects in your proposed study. You may have noted the attitude of management and staff in EFCC and ICPC as well as officers of the police force in Nigeria. How would these constitute limitations in you study and what measures will you design to moderate their impacts?
- Resources: These are mostly in the form of infrastructure needs. The laboratories in universities and research institutes crime investigation and external collaboration units in the relevant agencies.
- Ethical issues in Research: Each research problem may invoke peculiar research ethics issues. Based on your idea outline the research ethnics that should be considered some are linked to your profession others affect participants in your study. It has become necessary to submit your proposal to an ethics committee in a university, research institute or ethics regulating body for approval. The letters of approval is enclosed with the proposal.
- Professional Codes of Ethics: We have provided you with professional codes of ethic in module 3. Consult them. Here we are going to place emphasis on plagiarism.

The concept of intellectual property has been discussed in module 4. An intellectual who takes the ideas or concepts of other intellectual and presents them in a manner suggesting originality is liable to plagiarism. It is unobjectionable that in the social sciences criminology in particular we situate our studies within existing studies. In the processes certain concepts and ideas are repeated. Some of

these ideas are traceable to their originators, some are found in the works of others who used them and acknowledge the sources, others are regarded as general knowledge of common knowledge requiring no form of acknowledgement when used. Males and females make up the population in Nigeria. This is common knowledge.

3.6 Avoid Plagiarism

- Do not use the ideas or concepts of other scholars in their words without acknowledging them. Read the works of other scholars and express in your words the meaning you derive from what they said.
- **Conclusion:** you have been equipped with potential for keying into international research network. Do not expect success at first attempt. Some very good researchers record success of 1:5 or 1:10 ratios. The keyword is persistence in the writing of proposals and diligence when carrying out research.
- **Summary**
- **Research Grant:** Sponsorship offered by governments, individuals and Nongovernmental Organizations (NGOs) to facilitate research in various areas of interest. **Plagiarism:** The use of the intellectual output of others without acknowledging them.

6.0 TUTOR MARKED ASSESSMENT

- 1) Design a research proposal on cultural response to COVID-19. Specify the aims and justification of the study that will earn you the grant.

7.0 REFERENCES

Moser, c. and Kelton, G. (1974) survey method in social investigation (Second edition)
The English Language book society and Heinemann Educational books Britain.

Robert T. Michael et al., Sex in America: A Definitive Survey (New York: Little, Brown, 1994).

- Udofia, E.P. (2003). *Fundamentals of Social Science Statistics*. Gramma-Rays Publishing, Uyo.
- Warren E. Miller et al., *American national Election Studies Data Sourcebook, 1952-1978* (Cambridge, Mass.: Harvard University Press, 1980).
- William Kornblum, *Blue-Collar Community* (Chicago: University of Chicago Press, 1974).

References

- David Easton, "Alternative Strategies in Theoretical Research," in *Varieties of political Theory*, ed. David Easton (Englewood Cliffs, N.J.: Prentice-Hall, 1966), pp. 1-13.
- David Freeman, Robert Pisani, Roger Purves, *Statistics* (New York: Norton, 1978), pp. 302-307.
- Donald A. Dillman, James A. Christensen, Edward H. Carpenter, and Ralph M. Brooks, "Increasing Mail Questionnaire Response: A Four-State Comparison," *American Sociological Review*, 39 (1974): 755.
- Edward E. Evans-Pritchard, *The Nuer* (Oxford: Clarendon, 1940), p. 15.
- Ekpenyong. S. (2003) *Elements of sociology*. Second Edition. African heritage and research publication Lagos.
- Emile Durkheim, *Suicide* (New York: Free Press, 1966). Originally published 1897.

- Ervin Goffman, *Asylums* (Garden City, N.Y.: Doubleday, 1961) pp. ix-x.
- George E. Biles, Alfred A. Bolton, and Bernadette DiRe, "Herman Hollerith: Inventor, Manager, Entrepreneur - A Centennial Remembrance." *The Journal of Management*, 15 (1989) 603-615.
- Graig, C., Donald, L. and Keller, S. (1997)7th (ed). *Sociology*. The McGraw Hill Companies Inc.
- Haralambos, M. & Holborn, M, (2000) *Sociology and Perspectives*. Fifth Edition. Harper Collins Publisher limited.
- Howard S. Becker and Blanche Geer, "Participant Observation: The Analysis of Quantitative Field Data" in *Field Research*, ed. Burgess, P. 245.
- Ifeanacho, M. (2012) 2nd (ed). *Fundamentals of Sociology*. University of Port Harcourt Press, Nigeria.
- Iwarimie Jaja, D. (2014). *A brief in social Science Research*. University of Calabar Press.
- Karl Popper, *The Logic of Scientific Discovery* (New York: Science Editions, 1961), p. 106.
- Ken Dall, D. (2003) 4th (ed). *Sociology in our time*. Wallworth Thomson Learning.
- Komblum, W. (1994) 3rd (ed). *Sociology in a changing world*. Harcourt Brace College publisher.
- Kurt Lewin, *Field Theory in Social Science* (Westport, Conn.: Greenwood Press, 1975) p. 12.
- Leo A. Goldman and William H. Kruskal, "Measure of Association for Cross Classification." *Journal of the American Statistical Association*, 49 (1954): 732-764.
- Margaret, L.A. and Howard, F.T. (2004). 3rd(ed). *Sociology. Understanding a diverse society*. Eve Howard Publisher.
- Marvin Harris, Josildeth Gomes Consorte, Joseph Lang, and Bryan Byrne, "Who Are the Whites?: Imposed Census Categories and the Radical Demography of Brazil," *Social Forces*, 72 (1993): 451-462.

- Michael J. Robinson "Public Affairs Television and the Growth of Political Malaise: The case of 'The Selling of the Pentagon,'" *American Political Science Review*, 70 (1976): 409-432.
- Mickey L. Burnim, *An Evaluation of the Public Service Employment Projects in Florida Created Under Title VI of the Comprehensive employment and Training Act of 1973*(Tallahassee: Florida Department of Community Affairs,1978), p. 164.
- Moser, c. and Kelton, G. (1974) *survey method in social investigation* (Second edition) The English Language book society and Heinemann Educational books Britain.
- Mueller et al., *Statistical Reasoning in Sociology*, p. 248.
- Nachmias Chava, F. and Nachmias, D. (1996) 6th(ed). *Research methods in the social Sciences*.
- Ritzer, G. (2000) *macro sociologist theory* Fifth edition. McGraw Hill Boston.
- Robert F. Bales, *interaction Process analysis*, by permission of Chicago University Press. Copyright ©The University of Chicago Press.
- Robert K Merton, *Social Theory and Social Structure*, rev. and enlarged ed. (New York: Free Press, 1968), p. 103.
- Robert Rosenthal and Lenore Jacobson, *Pygmalion in the Classroom* (New York: Holt, Rinehart and Winston, 1968); see also E. Y. Babad, J. inbar, and R. Rosenthal, "Pygmalion, Galatea and the Golem: Investigations of Biased and Unbiased Teachers," *Journal of Educational Psychology*, 74 (1982): 459-474.
- Robert T. Michael et al., *Sex in America: A Definitive Survey* (New York: Little, Brown, 1994).
- Shepherd, J. M. (1981) *SOCIOLOGY*. West publishing Company New York.
- Spencer, M. (1976) *foundation of Modern Sociology* Prentice Hall Inc. New Jersey.
- Talcott Parsons and Edward A. Shills, *Toward a General Theory of Action* (New York.: Harper & Row, 1962), pp. 50-51.
- Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 970), p. 10.
- Thorsten Sellin and Marvin E. Wolfgang, *The Measurement of Delinquency* (New York: Wiley, 1964).

Udofia, E.P. (2003). Fundamentals of Social Science Statistics. Gramma-Rays Publishing, Uyo.

Warren E. Miller et al., American national Election Studies Data Sourcebook, 1952-1978 (Cambridge, Mass.: Harvard University Press, 1980).

William Kornblum, Blue-Collar Community (Chicago: University of Chicago Press, 1974).

APPENDIX

FORMAT FOR WRITING THESIS AT THE NATIONAL OPEN UNIVERSITY OF NIGERIA

CHAPTER ONE: INTRODUCTION

- (a) Background to the study.
- (b) Statement of the problem.
- (c) Aim and objectives of the study.
- (d) Study Questions.
- (e) Hypothesis of the study.
- (f) Clarification of the concept.

CHAPTER TWO: LITERATURE REVIEW AND THEORITICAL PERSPETIVE

- (a) Conceptual review.
- (b) Empirical review.
- (c) Theorical perspectives.

CHAPTER THREE: METHODOLOGY

- (a) Study design
- (b) Types of data use.
- (c) Population of the study

- (d) Population Frame
- (e) Sampling techniques and sample
- (f) Data collection techniques
- (g) Methods of data analysis
- (h) Problems Encountered
- (i) Study locale

CHAPTER FOUR: DATA ANALYSIS

- (a) Descriptive data presentation
- (b) Testing of hypothesis
- (c) Findings of the study
- (d) Discussion of findings

CHAPTER FIVE: SUMMARY CONCLUSION AND RECOMMENDATIONS

- (a) SUMMARY OF THE STUDY
- (b) CONCLUSION
- (c) RECOMMENDATIONS
- (d) CONTRIBUTION TO KNOWLEDGE

Appendixes

APA Referencing (6th edition)

This is the Wintec guide to help you with referencing in the American Psychological Association (APA) style. For further information, please refer to the 6th edition of The Publication Manual of the American Psychological Association (2010), or see a staff member in the Library, Student Learning Services or Te Kete Kōnae.

Referencing: what it is and why we do it

When writing an assignment, you will read various books, articles and websites to find information. You must acknowledge the ideas you get from these sources, to

- avoid Plagiarism
- credit the author from whom you got an idea
- allow others to read the same resources
- back up your ideas with authoritative work by another author
- show you have looked at a variety of resources

Referencing consists of two parts:

- Full entry in the Reference list

AND

- In-text citation within your assignment.

Further resources on referencing using APA are available on the Referencing page of the Academic Learning Resources on Moodle:
<https://learning.wintec.ac.nz/course/view.php?id=3037§ion=6>

Examples of how to reference different types of resources

Audio-visual media DVD/film, Music recording, Podcast, Television series, YouTube clip,

Books No author, One author, Two authors, 3-5 Authors, Six Authors/Editors, Chapter,

Journals & Serials Articles, Articles with doi, Articles from library database, Articles from

internet

Online books and resources

Webpages, Conference papers, Dictionary definitions, Encyclopedias,

Blogs,

Other media Personal communication

Other written resources Brochures, Newspapers, Course hand-outs, lecture notes

Wintec APA Guide Page 2 of 7 Revised June 2015

Reference list In-text citation BOOKS Book with no author (including dictionaries – see APA FAQs, pg. 3, “How do I reference a resource that lists no author?”)

The complete encyclopaedia of garden flowers. (2003). Auckland, New Zealand: Bateman.

The Complete Encyclopaedia of Garden Flowers (2003) shows that ... (p. 96).

Book with one author

Jones, R. (2007). Nursing leadership and management: Theories, process and practice. Philadelphia, PA: F. A. Davis.

Jones (2007) notes that ... (p. 184). Or ... (Jones, 2007, p. 184).

Book with two authors

Claiborne, L., & Drewery, W. (2010). Human development: Family, place, culture. North Ryde, Australia: McGraw-Hill.

Claiborne and Drewery (2010) state that..... (p. 88). Or ... (Claiborne & Drewery, 2010, p. 88).

Book with three to five authors

Hubbard, J., Thomas, C., & Varnham, S. (2010). Principles of law for New Zealand business students (4th ed.). Auckland, New Zealand: Pearson.

First citation - Hubbard, Thomas and Varnham (2010) state that... (p. 4) Or ... (Hubbard, Thomas, & Varnham, 2010, p. 4). Then – Hubbard et al. (2010) report that ... (p. 4). or ... (Hubbard et al., 2010, p. 4). Book with six or more authors / editors (see also Journal article with six or more authors)

Mezey, M. D., Cassel, C. K., Bottrell, M. M., Hyer, K., Howe, J. L., & Fulmer, T. T. (Eds.). (2002). Ethical patient care: A casebook for geriatric health care teams. Baltimore, MD: Johns Hopkins University Press.

First citation – Mezey et al. (2002) explain that ... (p. 58). Or ... (Mezey et al., 2002, p. 58).

Book or report by a corporate author (e.g. an organisation, association or Government Department)

University of Otago. (1986). Today's food, tomorrow's health. Dunedin, New Zealand: Author.

The University of Otago (1986) claims that (p. 6). Or ... (University of Otago, 1986, p. 6).

Book chapter in an edited work

Hales, M. (2012). Community health nursing. In A. Berman, S. Snyder, T. Levett-Jones, T. Dwyer, M. Hales, N. Harvey, ...D. Stanley (Eds.), *Kozier and Erb's fundamentals of nursing* (2nd Australian ed., Vol. 1, pp. 127-141). Frenchs Forest, Australia: Pearson.

Hales (2012) reports that... (p. 129). Or ... (Hales, 2012, p. 129).

ONLINE BOOKS AND RESOURCES

NB A Digital Object Identifier (doi) is a unique ‘number’ (or code) to identify content and provide a reliable link to its location on the Internet. Unlike a URL, a doi never changes.

Book with a digital object identifier (doi)

Kay, G. N. (1999). *Fiber optics in architectural lighting: Methods, design, and applications*. doi:10.1036/0070349320

Kay (1999) notes ... (p. 65). Or ... (Kay, 1999, p. 65).

Book with no doi retrieved from an online database (see APA FAQs for more information) Fox, W. (2006). *Theory of general ethics: Human relationships, nature, and the built environment*. Retrieved from ebrary database. OR: Fox (2006) states ... (p. 53). Or ... (Fox, 2006, p. 53).

Wintec APA Guide Page 3 of 7 Revised June 2015

Gulanick, M., & Myers, J. L. (2014). *Nursing care plans: Diagnoses, interventions, and outcomes* (8th ed.). Retrieved from EBL database.

NB Also see APA FAQs – questions under Ebooks.

Gulanick and Myers (2014) note... (p. 91) Or ... (Gulanick and Myers, 2014, p. 91).

Dictionary definitions - no author or editor

Practice. (n.d.). In Merriam-Webster’s online dictionary. Retrieved from <http://www.merriam-webster.com/dictionary/practice>

(Practice, n.d.)

Dictionary definitions - author or editor Simpson, J. (Ed.). (2012). *Practice*. In Oxford English dictionary. Retrieved from <http://www.oed.com/view/Entry/149226>

NB For print dictionary include the publication details instead of “retrieved from URL”

(Simpson, 2012)

Online encyclopedias – author or editor Easton, B. (2012). *Economic history: Boom and bust, 1870-1895*. In *Te Ara: The encyclopedia of New Zealand*. Retrieved April 15, 2015 from <http://www.teara.govt.nz/en/economic->

history/page-5 NB Only include retrieval dates, if, at the bottom of the page, it says it has been updated on a particular date.

“Atkinson’s careful management of the national finances set the economy up for the long boom, which began in the mid-1890s” (Easton, 2012, “Bust”, para. 4).

Blog post

vaughanbell. (2010, November 1). It only exists if I see colours on the brain scan [Blog post]. Retrieved from <http://mindhacks.com/2010/11/01/it-only-exists-if-i-can-see-colours-on-a-brain-scan/>

NB If the author’s name is in lowercase, it should remain so in the reference list. This title is not italicised. vaughanbell (2010) argues that... (para. 3). Or ... (vaughanbell, 2010, para. 3). Webpage

Statistics New Zealand. (2014). New Zealand in profile 2014. Retrieved from <http://www.stats.govt.nz>

Statistics New Zealand (2014) provides evidence for ... (para. 2). Or ... (Statistics New Zealand, 2014, para. 2).

Webpage (no date)

Department of Conservation. (n.d.). New Zealand’s marine environment. Retrieved June 17, 2014 from <http://www.doc.govt.nz/conservation/marine-and-coastal/new-zealands-marine-environment/>

NB Only include retrieval dates where information on the website may change over time.

The Department of Conservation (n.d.) estimates that ... (para. 4). Or ... (Department of Conservation, n.d., para. 4).

Conference paper in published proceedings online

Flintoff, V., & Flanagan, P. (2010, April). The ‘ménage à trois’ complexity of external supervision. In L. Beddoe & A. Davies (Eds.), *Common threads, different patterns: Supervision Conference 2010, Auckland, New Zealand: Proceedings*, (pp. 8- 17). Retrieved from https://cdn.auckland.ac.nz/assets/education/about/schools/chss_wk/docs/2010-Supervision-Conference-Proceedings.pdf

Flintoff and Flanagan (2010) mention ... (p. 9). Or ... (Flintoff & Flanagan, 2010, p. 9).

Wintec APA Guide Page 4 of 7 Revised June 2015

JOURNALS

NB Retrieval Statements: There are 2 types of retrieval statements used when there is no doi available. The date is only included if the source material is likely to change over time. 1. Retrieved from (name of the database) 2. Retrieved from <http://www...>

Journal or serial article (print version)

Millard, S. K., Nicholas, A., & Cook, F. M. (2008). Is parent-child interaction effective in reducing suffering? *Journal of Speech, Language & Hearing Research*, 51(3), 636-650.

First citation – Millard, Nicholas and Cook (2008) explain (p. 640). Or ... (Millard, Nicholas, & Cook, 2008, p. 640). Then – Millard et al. (2008) explain ... (p. 640). Or ... (Millard et al., 2008, p. 640). Journal or serial article with six or more authors (See also Book with six authors/editors)

Gilbert, D. G., McClernon, J. F., Rabinovich, N. E., Sugai, C., Plath, L. C., Asgaard, G., ...Botros, N. (2004). Effects of quitting smoking on EEG activation and attention last for more than 31 days and are more severe with stress, dependence, DRD2 A1 allele, and depressive traits. *Nicotine and Tobacco Research*, 6, 249-267. doi:10.1080/1462220041001676305

First citation – Gilbert et al. (2004) indicate that (p. 252). Or ... (Gilbert et al., 2004, p. 252).

Journal or serial article with a doi

Stulz, J. (2006). Integrating exposure therapy and analytic therapy in trauma treatment. *American Journal of Orthopsychiatry*, 76(4), 482-488. <http://dx.doi.org/10.1037/0002-9432.76.4.482>

Stulz (2006) discusses ... (p. 486). Or ... (Stulz, 2006, p. 486).

Journal or serial article from a library database

Bumpus, M. A., & Burton, G. (2008). Chapters in the life of an entrepreneur: A case study. *Journal of Education for Business*, 83(5), 302-308. Retrieved from ABI Inform database.

NB Undergraduates: Give the name of the database. Researchers: Give the URL of the journal homepage. e.g. Retrieved from <http://www.tandfonline.com/toc/vjeb20/current>

Bumpus and Burton (2008) believe that ... (p. 303). Or ... (Bumpus & Burton, 2008, p. 303).

Journal or serial article from the Internet

Pantaleo, S. (2005). 'Reading' young children's visual texts. *Early Childhood Research & Practice*, 7(1). Retrieved from <http://ecrp.uiuc.edu/v7n1/pantaleo.html>

NB In-text citation notes the section title on an online document without page numbers.

Pantaleo (2005, Classroom context) states (para. 3). Or ... (Pantaleo, 2005, Classroom context, para. 3).

OTHER WRITTEN RESOURCES Brochure or pamphlet YouthLaw: Tino Rangitiratanga Taitamariki. (2003). Free legal service for children and young people [Brochure]. Tamaki Makaurau, New Zealand: Author.

YouthLaw: Tino Rangitiratanga Taitamariki (2003) identifies ... Or ... (YouthLaw: Tino Rangitiratanga Taitamariki, 2003).

Newspaper article (no author, print version)

Kiwi speller at home among international bright sparks. (2008, May 20), *New Zealand Herald*, p. A11.

... ("Kiwi Speller," 2008, p. A11).

Wintec APA Guide Page 5 of 7 Revised June 2015

Newspaper article from the Internet

Tait, M. (2014, June 12). Rubbish trial is food for thought. *New Zealand Herald*. Retrieved from <http://www.nzherald.co.nz>

NB Give the URL of the newspaper home page to avoid broken links.

Tait (2014) indicates ... (para. 4). Or ... (Tait, 2014, para. 4).

Newspaper article from a database Flowers, M. (2014, May 13). Growth-driving polytechs hurt by dated public image. New Zealand Herald. Retrieved from Newztext Plus database.

Flowers (2014) notes ... (para. 4). Or ... (Flowers, 2014, para. 4).

Course hand out / Lecture notes

Smith, A. (2014, May 12). A model of nursing care [PowerPoint slides]. Hamilton, New Zealand: Wintec.

...as Smith (2014) found.... Or ... (Smith, 2014). AUDIO VISUAL MEDIA

Television series (single episode)

McGovern, J. (Writer), & Fywell, T. (Director). (1994). To be a somebody [Television series episode]. In S. Hood (Executive producer), Cracker. Manchester, England: Granada.

McGovern (1994) shows ... Or ... (McGovern, 1994).

DVD / Film

Campion, J. (Director), & Chapman, J. (Producer). (1993). The piano [DVD]. Australia: Australian Film Commission.

Campion and Chapman (1993) note ... Or... (Campion & Chapman, 1993).

Music recording

Waters, R. (1973). Money [Recorded by Pink Floyd]. On The dark side of the moon [CD]. Middlesex, England: Harvest.

...“Money” (Waters, 1973, track 6). Or ... “Money” (Waters, 1973, track 6)...

YouTube Video

Apsolon, M. [markapsolon]. (2011, September 9). Real ghost girl caught on Video Tape 14 [Video file]. Retrieved from <http://www.youtube.com/watch?v=6nyGCbxD848>

NB Include both the full name and the username if possible, as formatted above.

Otherwise, put the author’s screen name first, as formatted above; no brackets.

Apsolon (2011) shows.... Or ... (Apsolon, 2011).

Podcasts

Bushnell, P. (Producer). (2014, January 5). You call this art?: Part 1 [Audio podcast]. Retrieved from <http://www.radionz.co.nz>

Bushnell (2014) comments.... Or ... (Bushnell, 2014).

OTHER MEDIA Personal communication

As this material is not recoverable or archived, it is not included in a reference list, but is acknowledged in-text. Include private letters, tutor comments, own class notes, interviews, telephone conversations, etc. Use the initials and surname of the person and as exact a date as possible.

K. W. Wiremu (personal communication, January 18, 2010) commented that...

Wintec APA Guide Page 6 of 7 Revised June 2015

FOR MORE INFORMATION OR ASSISTANCE, PLEASE CONTACT A STAFF MEMBER FROM:

The Library OR Student Learning Services OR Te Kete Kōnae

Reference Lists

At the end of your assignment, you are required to provide full reference information for each source you have used. Reference lists give full information about the printed and electronic sources referred to in your writing so that your reader is able to locate the sources you used.

The items in your reference list need to be: In alphabetical order, by the author/producer's surname, in the order they appear on the title page Combined in one list - do not separate different types of sources In correct format (brackets, punctuation, capital letters, italics, etc.) as in the examples in this guide.

This includes underlining all URLs so they are active hyperlinks. In 'hanging indent' format Checked with your department for their preferred line spacing

Remember, be consistent!

In-Text Citation

In-text citations include the author's name, publication date of the item and the page or paragraph showing where you found the information.

Direct Quotation – You can quote part or all of an author's sentence; select the part that is most useful for your purpose. You copy the words exactly from the source, using double quotation marks to show which words are copied. Show the surname of the author(s), the year of publication and page (or paragraph) number, in brackets, e.g.

1. MacFarlane (2004) notes that allowing “time to bond with students is the first step in classroom management” (p. 90). 2. "Taking time to bond with students is the first step in classroom management” (MacFarlane, 2004, p. 90).

NB A reference at the end of a sentence is part of that sentence so put a full stop after the final bracket.

Paraphrasing – Paraphrasing is more than changing a few words; you need to use your own sentence structure and phrases. You put the author’s meaning into your own words so there is no need for double quotation marks, e.g.

1. MacFarlane (2004) indicates that smoother organization of a classroom is possible when teachers take the time to connect with their class (p. 90), although this is not always the case. 2. True classroom control can start when a teacher connects with the students (MacFarlane, 2004, p. 90).

NB The page number should be provided at the end of the paraphrase, whether or not it is at the end of the sentence. This will ensure that you have identified the author/owner of the idea you are using.

For more information on paraphrasing, see Paraphrasing video

Edited books - When using material by the author(s) of a chapter in an edited book use only the chapter author’s name in-text and the year of publication of the book. (See example: Book chapter in an edited work)

Wintec APA Guide Page 7 of 7 Revised June 2015

Citations from a secondary source - put the surname of the person you are quoting, followed by ‘as cited in’, then the surname, year and page of the book or article you read it in, e.g. 1. Sullivan and Decker (as cited in Jones, 2007) discuss the importance of participation (p. 43). 2. The importance of participation cannot be over-estimated (Sullivan & Decker, as cited in Jones, 2007, p. 43).

NB Only the work cited is listed in the references; in this case, the details of the book by Jones.

Connecting words - Select an appropriate word to connect from author to in-text citation, e.g., states, reported, notes, found, suggests, mentioned, indicates,

recognised, identified, argued, etc. This may occur at the beginning of a sentence, in the middle or at the end.

Additional points about in-text citation

□ Omitting material: Use 3 dots within a quote to indicate that you have omitted material from the original source, e.g. “This is the movement of the middle class ... from schools serving low socio-economic status (SES) areas to schools serving middle SES areas” (Brett, 1994, p. 43). □ Adding emphasis: To emphasise a word or words in a quotation use italic type, immediately followed by [emphasis added], e.g. Paraphrasing is more than “changing the order of a few words and substituting synonyms for a few others. Paraphrased ideas ... should blend [emphasis added] with your style” (Roundtree, 1991, p. 76) and show you understand the concept. □ Inserting material: Enclose your own additions to quotations, or explanations, in square brackets, e.g. Through play the child needs to learn to manipulate and master body, mind, emotions and relationships, as “such mastery is essential to [more extensive] cognitive development, strong ego development and good mental health” (Schuster & Ashburn, 1992, p. 328). □ If a quote is longer than 40 words: miss a line, do not change the line spacing, indent left and right, do not use quotation marks, put a full-stop before the in-text citation, and leave a line at the end. See example in APA FAQs. □ Incorporate quotations into your discussion: They may be all or part of a sentence placed: at the beginning, embedded in, or at the end, of your sentence. □ When quotations are complete sentences: They need to be referred to in, or linked to, the previous and/or following sentence. This will show your understanding of the quote.

Plagiarism

Plagiarism means using someone else's ideas or words in your assignment and presenting them as your own. This is not allowed, and is seen as academic theft. Work can be plagiarised from books, journal articles, websites, course notes, or the assignments of other students.

Although plagiarism can be intentional (when you deliberately copy work), it is often unintentional; this is usually because referencing is badly done or not done at all. When reading for an assignment, always write down author, title and

publishing details of a work when you take notes from it so you can acknowledge the ideas in your assignment. This must be done both in text, and in the reference list.

Further

NOTE THAT THIS FORMAT FOR REFERENCING IS REVIEWED PERIODICALLY.UPDATE YOUR KNOWLEDGE CORRESPONDINGLY.