NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF EDUCATION

COURSE CODE: ODL 713

COURSE TITLE: DESIGN AND DEVELOPMENT OF OPEN AND DISTANCE LEARNING MEDIA

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INTRODUCTION

Design and Development of Open and Distance Learning Media (ODL 713) is a three Credit course for postgraduate students in Distance Education. The course is also designed for other students who may desire the knowledge of Distance Education.

The course contains 23 units which are written in modules. It is designed to expose students to the meaning of distance education, computer and communication network, satellite technology and distance education, meaning and origin of media, media in distance education, education broadcasting, instructional television, instructional radio, etc.

This course material is written in simple English to make the contents understandable and explicit to the students and its other users. The writers use very common and simple examples to illustrate the contents in the course material to suit students studying at the National Open University of Nigeria and other students at other open and distance learning institutions. It will also be useful to students in other conventional institutions.

This course guide gives a brief overview of what the course is about, what course materials you will be using and how you can work your way through this material. It suggests some general guidelines for the amount of time you are likely to spend on each unit of the course in order to complete it successfully. It also gives you some guidance on tutor-marked assignments (TMAs). Detailed information on TMAs is found in the separate assignment file, which will be available to you in due course. There are regular tutorial classes that are linked to the course. You are advised to attend these sessions.

Course Aims

The aim of the course is to give you an understanding of the meaning of Distance education, computer and communication network, media in distance education, educational broadcasting, instructional television and instructional radio.

(i) Stating the roles of information communication technology
(ii) Identifying the different models of distance education
(iii) Identifying various media and tools used in distance education
(iv) Stating the principles of communication network
(v) Identifying the various types of network service applications
(vi) Understanding the potential uses of the internet in distance education
(vii) Identifying the various ways of utilizing educational media

Course Objectives

In order to achieve the general aims stated above, the course sets the performance objectives in behavioural terms. In addition, each unit has specific objectives which are always indicated at the beginning of a unit. You should read them before you start reading through the unit. You may want to refer to them during your study of the unit to check on your progress. You should always look at the unit objectives after completing a unit. In this way you can be sure that you have done what is required of you in the unit.

The broad objectives of the course are, at the end of the course, you should be able to:

- define distance education
- explain media development in distance learning
- discuss the functions of media in distance education
- define computer and communications network
- explain the application of satellite technology to distance education
- out line the history of satellite technology
- identify the potential uses of the internet in distance education
- discuss the functions of educational media
- explain the origin of media
- discuss the early materials used as media
- state the contributions of printed communication
- identify the strands of media classification
- discuss the sensory stimulus mode
- discuss the various ITV delivery system
- state the advantages of ITV
- state the disadvantages of ITV
- discuss educational broadcasting
- examine the usefulness of educational broadcasting
- identify the three types of instructional radio

Working through this Course

To complete this course, you are required to read the study units, read the set of books and other materials. Each unit contains self assessment exercises and at a point in the course, you are required to submit assignments for assessment purposes. At the end of the course, there is a final examination. The course should take you about 12 weeks or more.

Below you will find listed, all the components of the course, what you have to do and how you should allot time to each unit in order to complete the course successfully on time.

Course Materials

Major components of the course are:

1. Course guide
2. Study units
3. Text books
4. Assignment file
5. Presentation schedule

In addition, you must obtain your own course material as provided by NOUN. Obtaining a copy is your own responsibility.

Study Units

There are 23 study units in this course, module 3 was adapted from an existing Course Material- EDT 834- Instructional Television and Radio. Other units were developed by the writers.

Module 1

Unit 1 Issues in Communication
Unit 2 Nature, Purposes and Types of Communication
Unit 3 Objectives and Dimensions of Communication
Unit 4 Principles of Communication and Situations of Communication
Unit 5 Barriers to Communication
Unit 6 Future of Communication Technology

Module 2 Media in Distance Education, Television and Video components

Unit 1 Meaning and Origin of Media
Unit 2 Classification of Educational Media
Unit 3 Usefulness of Educational Media
Unit 4 Media in Distance Education
Unit 5 Educational Broadcast
Unit 6 Instructional Television

Module 3 Radio and Audio Components

Unit 1 Historical Background to Instructional Radio in Nigeria
Unit 2 Basic Concepts in Instructional Radio
Unit 3 Applications of Instructional Radio Facilities in the Studio
Unit 4 Functions of Sound/Preproduction Stage
Unit 5 The Instructional Radio Script
Unit 6 Production and Postproduction Stages

Module 4 Communication Networks, Satellite Technology, Application of Distance Education

Unit 1 Generations of Media and Technologies in Distance Education
Unit 2 Computer and Communication Network
Unit 3 Satellite Technology and Distance Education
Unit 4 Introduction to the Internet
Unit 5 Internet for Distance Education: case study of NOUN

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Assignment File

In this file, you will find all the details of the work you must submit to your tutor for marking. The mark you obtain in the course assessment will be part of the final marks you obtain in the course. The assignment file contains information about all your assignments for this course. You are to submit these assignments promptly. They are going to be recorded as your course work.

Presentation Schedule

The presentation schedule included in your course material gives you the important dates for the completion of your TMAs and attendance of tutorials. Remember, you are required to submit all your assignments at the appropriate time. You should guard against delays in your work.

Assessment

There are two aspects of the assessments of the course. The first is your TMAs and the second is a written examination at the end of the course. In tackling the assignments, you are expected to apply information, knowledge and techniques gathered during the course. The assignments must be submitted to your tutors for formal assessment in accordance with deadline stated in the presentation schedule and the assignment file.

The work you submit to your tutor for assessment takes 30percent of your total course mark. At the end of the course you will have to sit for a final written examination for three hours. This examination takes70 percent of your course mark.

Tutor-Marked Assignment (TMA)

There are four Tutor-Marked Assignments in this course. You need to submit the four assignments. However the highest marks in the four assignments takes 30 percent of your total course mark. Assignment questions for the units in this course are contained in the assignment file.

You will be able to complete your assignment from the information contained in your set of books, reading and study units. However, it is desirable at the postgraduate degree level to demonstrate that you have read and researched more widely than the required minimum. Using other references will give you a broader view point and may provide a deeper understanding of the subject. When you have completed each assignment send it together with a TMA form to your tutor. Make sure that each reaches your tutor before the deadline given

in the presentation schedule and assignment file. If, for any reason, you cannot complete your work on time, contact your tutor before the assignment is due to discuss the possibility of an extension. Extension will not be granted after the date due unless there are exceptional circumstances.

Final Examination and Grading

The final examination for EDT711 will be for three hours and it takes 70 percent of the total course grade. The examination will consist of questions that reflect the types of self assessment and Tutor-Marked exercises you have previously encountered. All areas of the course will be assessed. Deploy the time between finishing the last unit and sitting for the examination to revise the entire course. You may find it useful to review your self assessment exercises and comments by your tutorial facilitators before the exanimation. The final examination covers information from all parts of the course.

How to Get the Most from the Course

In distance learning programme, the study unit replaces the university lecturer. This is one of the greatest advantages of distance learning programme. In this programme you have the opportunity of working and studying through a well designed study material at your own pace and at a time and place that suits you best. In this learning programme you read the material as against listening to a lecturer in the conventional school system. In the same way that a lecturer might recommend some reading materials, the study units tell you when to read recommended books or other materials and when to undertake practical activities. Just as a lecturer might give you class exercises/activities, your study units provide exercises for you to do at the appropriate time. Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit and how a particular unit is integrated with the other ones and the course as a whole. Next is a set of learning objectives which state what you should be able to do by the time you have completed the unit. These objectives are set to guide your study. When you have finished the unit you must go back and check whether you have achieved the objectives. If you cultivate the habit of doing this, you will make tremendous improvement in your chances of passing the course.

The main body of the unit guides you through the required reading from other courses. This will usually be either from your recommended books or from a reading section. Self assessment exercises are interspersed throughout the unit. You are expected to work on them as well. Working through these exercises will help you to achieve the objectives of the unit and prepare you for the

assignments and the examination. You should attempt the self-assessment exercise as you come across it in the study unit. There will also be several examples given in the study units; work through these when you come across them too.

Facilitators/Tutors and Tutorials

There are 8 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of these tutorials, together with the name and phone number of your tutor, as soon as you are allocated a tutorial group. Your tutor will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you may encounter; always visit the study centre for further assistance. 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 during tutorial sessions if you need to. Contact your tutor if:

· You do not understand any part of the study units or the assignment.
· You have difficulty with the self assessment exercises
· You have a question or problem with an assignment or with your tutor's comments on an assignment.

You should try your best to attend the tutorials. This is the only chance to have face to face contact with your tutor and to ask questions. You can raise any problem encountered in the course of your study. To gain the maximum benefit from course tutorials, prepare a list of questions before the tutorial session. You will learn a lot from participating actively in the discussions.

MODULE 1

UNIT 1: ISSUES IN COMMUNICATION

CONTENTS

1.0 INTRODUCTION

This unit exposes us to communication technology for distance education. In this unit, we shall deliberate on the concept of communication, as it is a basic human process. We must take into cognizance that the power of communication is being enhanced significantly in every social transactions and this transcends the educational system. Pertinently in this unit, we shall learn about i) the concept of communication, ii) functions of communication, iii) means of communication and iv) process of communication.

2.0 OBJECTIVES

By the end of this unit, we should:-

1) State the concept of communication
2) Discuss the functions of communication
3) Describe the means of communication
4) Discuss the process of communication

3.0 MAIN CONTENT

3.1 The Concept of Communication

Communication has been defined variously by practitioners in education industry. Ajelabi (2005) defines it as the process of sending and receiving messages. Hence, it involves the transmission of message from a source - sender to a destination – receiver. Abimbade (2006) on the other hand sees communication as a process of information exchange between two or more individuals in an attempt by are individual to persuade or change the behavior of the other individual. Most others believe that communication is a science, since it is based on certain principles that can be verified and these principles can be used to make communication very effective. Hence, it is not out of place for us to study communication in this unit as a science and seek a scientific explanation for the concept of communication.

In this scientific explanation, we shall consider communication as consisting of three components, viz:- the source, the channel and the receiver. The source ought to ignite persuasion in order to ensure that communication takes place. At the receivers' angle, the communication appears as a process that should elicit the desired response. At this point, it is important to note that the source will always be elated should the receiver react or behave in the manner expected.

The channel presents communication as a medium or a carrier of information from the source to the receiver or from the receiver to the source. This informed Shanon and Waver (1949) to submit that the primary concern of communication is to recapture faithfully the message sent from one place to another place. On his part, Schramm (1973) defined communication as the functions of persuading, informing, teaching and entertaining people. Contributing to the definition of communication, Rogers (1986) opined that it is a process by which people create and share information with one another in order to reach a common understanding.

3.2 Functions of Communication

We have examined the various definitions of communication as presented by most experts in the preceding paragraphs. Hence, looking at communication from these perspectives we will be convinced that it pays some socio-psychological functions which include:

i) Information
ii) Socialization,

iii) Motivation,
iv) Education
v) Entertainment etc.

i) ***Information:*** The preoccupation of communication is the collective storage and dissemination of information for total utilization of people. This means that when people are involved in communication, it enables then to take decisions on issues that have been raised and these issues could cut across socio-cultural, economics, politics and subsequently leads to development.

ii) ***Socialization:*** The process of communication enables the individuals that are involved to be very active in their participation in their societies. As they interact with others, they acquire and learn the various norms of their societies, which help them to line together, understand each other and appreciate their diverse feelings, emotions, ideas, etc in their social environment.

iii) ***Motivation:*** As individual members of a society interact together, the urge to foster and develop a more endearing relationship builds up. Communication therefore becomes the value that motivates the people to meet their goals which may have been mutually accepted or agreed upon.

iv) ***Education:*** As communication ensures the dissemination of information within the society, it enhances the intellectual capability and development of the individual participants within the society. In doing this, it helps the individuals acquire skills and aptitude required to become productive members of that society. Hence, the quality of education in any given society depends largely on the quality of communication that pervades in that society.

v) ***Entertainment:*** Communication activities aid people in their quest to find enjoyment and recreation, hence enthrones entertainment to the society. Such activities like dance, drama, music etc find fulfillment through communication which provides both personal and collective experience to the people and subsequently aid healthy society.

These functions as we have provided here may not be the totality of the functions of communication. You should try to think and list some other functions that you deem right to be included as part of the functions of communications.

3.3 Means of Communication

Right from the primitive era, there are tools and instruments that the early men have always used as means of communication. These tools or techniques are diversely used by people depending upon their accessibility, usefulness and effectiveness. The tools and techniques include:- i) signs and sounds, ii) language iii) postal system, iv) telephone, v) mass media vi) satellites, vii) computers.

i) ***Signs and Sound:-*** This means of communication was commonly used during the primitive era and it involves body language or other non-verbal languages, such as gestures, music, drawings and facial expression. This form of communication has a lot of limitations, particularly where the signs and sounds represent a number of other things or convey conflicting meaning.

ii) ***Language:*** The era of signs and sound paved way for languages and dialects which were used for effective communication. Numerous dialects were developed by diverse groups of people, which were intelligible to such group. This therefore constitutes delimitation since most people do not understand other peoples' dialect or language, hence distort communication.

iii) ***Postal System:*** The postal system arose as a point to point delivery of information. This is an important means of communication as it widened the communication possibilities at distance, and connects different countries of the world. This means of communication is mostly used institutions that provide education at distance and other organization that move classified information.

iv) ***Telephone:*** This medium of communication belongs to interpersonal communication networks, and could be viewed as an extension of traditional oral communication. Experts like (MacBride, 1980) have opined that no other media can compared with telephone in terms of direct and spontaneous response in communication. The major limitation of this medium is the high cost and its minimal usage in education.

v) ***Mass Media:*** This refers to the use of printing press and radio which at their arrival created massive aware in the communication circle. The production of newspapers, textbooks, radio and television brought unprecedented revolution, which transcended to education. These media transcended geographic barriers, and took information successfully to an unlimited audience.

vi) ***Satellite:*** This medium also brought expansion to communication as it took transmission of information over long distances. In this medium, people transmit or receive information from any part of the globe in a minimal time. One major usefulness of satellite its ability to enclose the world as a global village.

vii) ***Computers:*** The computer at its emergence has remained the most sophisticated means of communication. This tool is used to perform various kinds of function with complete efficiency and effectiveness. Computer brought with it interactivity and individualism in learning.

3.4 Process of Communication

The process of communication according to Abimbade (2006) in cyclical because it has no beginning or end. In this process, information flows from a source or sender through a channel to the receiver or destination. Many experts have advanced several models of communication process, but the widely accepted is the Shannon and Weaver (1949), in which five elements are identified, viz, the source, the receiver, the channel the code and noise factor.

i) ***Source:*** This is one of the most important components of communication process. It refers to the individual or media that develops and sends a message. It will be impossible for any communication to exist without the initiator of the information. This source could be a human being or non-living objects, like computers. In the case of the human being, they may teachers, parents, students etc who initiates the information, while the media could be either TV, Radio or Textbooks.

ii) ***Receiver:*** This is another important component of communication process. The receiver or destination is anchor of the information. Like the source, the receiver could be human being or non-living object. This human being could be the teacher, parents, students etc, while the media in their diverse formation could constitute the non-living objects.

iii) ***Channels:*** the channel of communication refers to the means through which communication between the source and the receiver is consummated. The channel, also called the medium could be through the air waves in the case of TV/radio broadcast or by correspondence inform of books, letters packaged instructions etc. in the primitive era, the medium included beating drums, spoken words, touch or facial

expression. The choice of this channel could define the meaning from the source to sender, hence adequate caution must be taken in the selection of the channel.

iv) ***Code:*** A code refers to a set of signals or symbols which could be used to create meaning for both the source and receivers. These could be inform of words of mouth, written material, visuals etc which must communicate ideas, views or feelings of those participating in the communication process. Several cedes exist in verbal and non-verbal forms that are used for social communication. For a code to be meaningful it has to be accessible to both the source and the receiver.

v) ***Noise:*** The communication process most times has some factors that distort or impinge on the free flow of information between the source and the receiver. These factors which interfere with the flow of information are regarded as 'Noise'. This Noise factor which prevent or distort the exchange of proper information are numerous and diverse in their presentation, such as technical problems in reception, overload information, etc. These can be discussed under three headings:-

a) Poor Reception:- This could appear in form of poor quality in audio media, distorted pictures in a video programme or poor quality or paper and printing in text materials. This distortion or interruption could demotivate those involved in the communication process.

b) Overloaded Information:- This is another way noise factor could be presented to prevent free flow of information. Ambiguity in information or overloading information could create unintended distortion between the source and the receiver. When this is done, communication suffers as the content of the message may not be properly decoded.

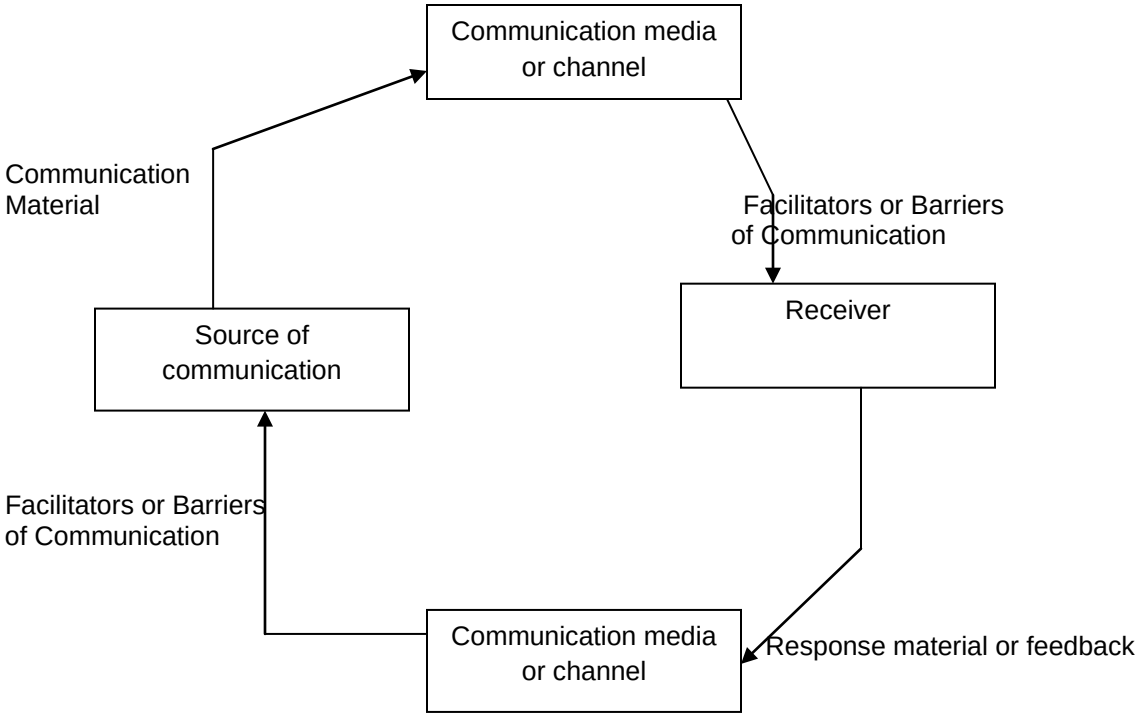
c) Environmental Distractors:- The environment also may constitute a noise factor in the communication process. The activities that are taking place in an environment could distort and distract the reception of information thereby making it very difficult for both the source and the receiver to have effective communication.

d) Feedback:- This aspect of the communication process extends the process to a two way. In this process the sender becomes aware of the receivers' response through this feedback loop. Here, message or information flows from the source to the receiver and this type of

communication helps in giving information that requires immediate answer making announcement that requires response etc, which shows how satisfactorily the information given has been received, hence enables both the source and the receiver to put alright any wrong impression or omission.

vi) ***Context:*** The context of communication is very vital in information sharing. The meaning derived from communication hinges on such variables social, physical or cultural context in which the communication occurred. Hence, the effectiveness of communication is influenced by peoples' belief, values and even behavioural pattern. Also related to these is the mental or physical condition of those involved in the communication, which could alter or otherwise the meaning of information therein contained.

The Process of Communication



4.0 Conclusion

In communication discuss such as we have done here it is pertinent to always consider the various diagrams that are at our disposal in order to have a broader knowledge of the concept.

5.0 SUMMARY

We have defined communication as a science which deals with the process of informing the audience, providing motivation, teaching and entertainment to all people.

We also informed in these paragraphs that communication creates and disseminates information, facts, ideas and feelings to all participants. In this unit, we also discussed the various functions of communication viz:- informing, persuading, socializing, motivating, educating and entertaining people. These functions we averred are executed through such means as – signs, words language, postal services, telephone etc.

In this unit, we also examined the various components of communication, viz:- the source (sender), the receiver (destination) the channel, the code, the noise, the feedback etc.

6.0 TUTOR-MARKED ASSIGNMENT

1) Describe the concept of communication
2) Discuss the process of communication
3) What is noise factor in communication

7.0 REFERENCES AND FURTHER READING

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UNIT 2: NATURE, PURPOSES AND TYPES OF COMMUNICATION

CONTENTS

1.0 INTRODUCTION

In unit 1, you have been introduced to what communication means. It is important for you to equally understand the nature, purposes and types of communication. This will be explained in this unit. Read carefully with rapt attention.

2.0 OBJECTIVES

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

1) Discuss the nature of communication
2) Explain the purposes of communication
3) Identify and discuss the various types of communication.

3.0 MAIN CONTENT

Now that you have understood the meaning of communication perfectly, it will be very necessary for you to understand the nature, purposes and types of communication. These concepts will be discussed in this unit.

3.1 Nature of Communication

Communication could be done unconsciously. This could be through the teacher's actions and mannerisms. For this reason, the teacher has to ensure that he or she is free of bad mannerisms, especially when dealing with learners.
Also communication could be deliberate or conscious. A teacher needs to concern himself or herself primarily with conscious and deliberate communication, as obtainable in a teaching session. For this purpose, he or she needs to think carefully about the information, concepts, attitudes and skills which form the bulk of what he or she wants to communicate to his or her learners. The teacher needs to think about the various media that can be used for his/her teaching and efforts should be made to minimise noise during the communication process.

3.2 Purposes of Communication

There is hardly any person who communicates without purpose except he or she is of unsound mind. Therefore, communication is usually with purpose or purposes.

Communication could therefore be for the following purposes.

- We communicate to inform. That is, making other people to be aware of happenings in the society. This could be through instruction, teaching or through the use of mass media.
- We communicate to influence. That is, to other people through persuasion or argument.
- We communicate to entertain. That is, to do something that amuses or interests other people.

3.3 Types of Communication

Communication could be oral or verbal communication and it could also be non-verbal (Abifarin, 2004).

i. Verbal Communication

This refers to the expression of ideas in oral form by the teacher or communicator. It is the commonest way of communication and it is extensively used by the teacher in the classroom.

Conditions for Effective Verbal Communication

The ideas to be communicated should be properly and carefully organized and sequenced. The ideas should be without ambiguity in terms of sentence construction and composition. The communicator should express his or her ideas in simple words that could be easily understood by the receiver e.g.
learners.

The ideas should be presented fluently without unnecessary mannerism and other forms of interruption.

ii. Non-Verbal Communication

This involves the use of gestures, signs or symbols. The Communicator at any point in time can use his hands, nose, eye contact, nodding of head and other forms of gestures to communicate with his or her intending receiver. Teachers are to master appropriate use of non-verbal communication strategies for teaching in the classroom.

SELF ASSESSMENT EXERCISE

Explain the following terms.
1. Nature of communication
2. Purpose of communication
3. Types of communication

4.0 CONCLUSION

In this unit, you have been exposed to the nature, purposes and types of communication. It is necessary for you, as a teacher, to adequately understand these concepts, if you are to communicate with ease in the classroom.

5.0 SUMMARY

The nature of communication has been discussed in this unit. These include unconscious and conscious or deliberate communication. The unit also discussed the purposes of communication, such as: communicating to inform, influence and entertain. The unit also discussed verbal and non-verbal communication. You are expected to understand the entire concept discussed in this unit perfectly.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the main purposes of communication.
2a. Mention the different types of communication.

b. Explain the various types of communication you have mentioned.

7.0 REFERENCE/FURTHER READING

Abifarin, M.S. (2004). Modern Approach to Educational Technology. Lagos: Inter-Ventures Publishers.

UNIT 3: OBJECTIVES AND DIMENSIONS OF COMMUNICATION

CONTENTS

1.0 INTRODUCTION

It is good for you to understand the objectives and dimensions of communication. You are advised to carefully go through the objectives and dimensions of communication as explained in this unit.

2.0 OBJECTIVES

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

1) Highlight the objectives of communication
2) Identify and explain the dimensions of communication.

3.0 MAIN CONTENT

To communicate effectively, it is very important that the teacher understands the main objectives and dimensions of communication. In this unit, the objectives and dimensions of communication will be explained to enable you understand them adequately.

3.1 Objectives of Communication

People do not just communicate, they communicate with the intension of achieving some predetermined goals after communicating with other people. This

is also the situation in organisations and institutions. Ogunmilade (1984), points out five main objectives of communication.

These include the followings:

- To stimulate participatory decision making and critical thinking.
- It encourages participants in an interactive situation are able to present their views a decision is taken.

- To enhance morale. Communication for instance gives employees the opportunity to express their opinions thereby serving as a veritable morale.

- To develop people communication process is indispensable for a sound personnel development programme. This can be achieved by providing orientation programme, training courses and periodic appraisal interview where each employee is told how she/he is doing and is given an opportunity to discuss his/her performance and his/her relationship. This is one of the basic boosting mechanism of management by objectives (MBO)

- For effective control. Communication is central to control system. It is the instrument for delegation and of authority in organisation. It is also used as necessary weapon to combat rumour and falsehood.

3.2 Dimensions of Communication

Communication is usually classified into three dimensions. These are downward, upward and horizontal communications. Let us examine these dimensions one after the other.

i. Downward Communication

This involves processing information from the top of an organization, for instance, through the rank and file, to the most junior officer. Usually this is done with the intension of ensuring proper flow of information and everybody is carried along. Though downward communication, a message is passed down to many people at the same time.

ii. Upward Communication

This refers to the transmission of information from the subordinates at lower hierarchy to senior officers. This dimension gives staff the opportunity to interact with their employers or bosses. It gives the employees ample opportunity to air

their views on certain management decisions and to equally bring their grievances, on some issues affecting them individually or collectively, to the notice of management.

The “upward communication process” points out the extent to which the message sent down is understood by the junior officers. This is where feedback comes into play. The subordinates are said to be free to make any remarks about their boss, but the “mum effect” is always a barrier. “Mum effect” refers to a situation whereby subordinates are afraid to say anything about their boss, so as not to be punished.

iii. Horizontal Communication

This is the kind of communication between the depths of an organization/institution. It may also be communication between people, of the same level, rank or status. An example is communication between two colleagues in an office, school or industry.

The personnel of various departments in an organisation require constant consultations. The action of one department will always affect the other. Failure to communicate effectively is a constant source of friction between departments in the work place. The understanding of the reasons for poor communication in an organisation is the first step towards enhancing effective communication. (Abifarin, 1997).

SELF ASSESSMENT EXERCISE

1. List the objectives of Communication.
2. Enumerate the three main dimensions of communication.

4.0 CONCLUSION

To communicate effectively, it is very important for the teacher to understand the objectives and dimensions of communication. These two items have been discussed fully in this unit.

5.0 SUMMARY

There are different objectives for communication and the dimensions of communication. Teachers have to know these in their day to day communication if their communication is to be meaningful.

6.0 TUTOR-MARKED ASSIGNMENT

Discuss fully, the main dimensions of communication.

7.0 REFERENCES/FURTHER READING

Abifarin, M.S. (1997). Communication for Effective Administration: A Case Study of Ireopodun L.G.A., Kwara State. (Unpublished MPA Project, Department of Political Science, Faculty of Business and Social Sciences). University of Ilorin, Ilorin.

Ogunmilade, C.A. (1984). Media in Education. Ile-Ife: University of Ife Press.

UNIT 4: PRINCIPLES OF COMMUNICATION AND SITUATIONS OF COMMUNICATION

CONTENTS

1.0 INTRODUCTION

In any communication process, some principles are very important and they have to be adequately considered, for any meaningful interaction to take place. There are communication situations as well. These may be grouped into one-on-one communication, small and large group communication, organisational or institutional and mass communication. In this unit, the principles of communication and communication situations will be explained. Ensure you pay adequate attention to them.

2.0 OBJECTIVES

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

1) List the principles of communication
2) Enumerate communication situations.

3.0 MAIN CONTENT

The principles of communication such as principle of readiness and motivation, principle of possession of competent communication skills, principle of sharing and interaction, principle of suitability of the communication contents, principle of

appropriate media and channel, principle of appropriate feedback and principle of facilitator and barriers of communication as well as communication situations will be discussed in detail.

3.1 The Principles of Communication

Certain principles are very essential to effective communication. These principles, according to Mangal and Mangal (2009), include:

a. Principle of Readiness and Motivation

The communicator and the receiver should be ready and remain motivated throughout the process of communication. Lack of interest, zeal and enthusiasm on the part of either of them may adversely affect the process and product of communication.

b. Principle of Possession of Competent Communication Skills

The communicator and the receiver should be quite competent and efficient in terms of communicating and receiving the desired information or message. Possession of the required communication skills is crucial, so that the task of communication, in terms of transmission and reception, may be performed by them effectively. In addition, as a source of communication, the communicator or teacher must possess sufficient knowledge to allow the flow of communication to the receiver (students) to be natural and persuasive as much as possible.

c. Principle of Sharing and Interaction

Since communication is a two way process, its success lies in allowing as much as possible exchange of ideas, and keeping mutual interaction between the source of communication (teacher) and receiver (students). The greater the level of interaction, the more the involvement and participation of the students in the teaching-learning process. This will, definitely, bring positive results to the process of communication.

d. Principle of Suitability of the Communication Contents

The content of what is to be communicated should be very suitable and easily understandable. It should be appropriate on the part of both the communicator and the receiver. The communicator (teacher) must be able to handle the

communication contents being transferred to the receiver (student), for proper understanding, so as to elicit appropriate response easily. In addition, the communicated material should have a definite purpose, cohesiveness and appropriateness in the light of set objectives, and the prevailing situation at the time of communication.

e. Principle of Appropriate Media and Channel

The effectiveness of the process of communication will depend on the type and appropriateness of media or communication channel used. It is therefore worthwhile for teachers and other communicators to make use of the verbal or the non-verbal or both means/channels for effective flow of communication. Similarly, the use of appropriate media, especially multimedia, should be preferred over the single or restricted use of the channel of communication for fruitful results.

f. Principle of Appropriate Feedback

Communication flow is deemed to be effective flow if it continues to receive the desired feedback from the receiver and vice versa. In the classroom for instance, if a teacher gets the desired feedback from his/her students in terms of the quality of his/her teaching efforts, it will boost his morale, thus, making him to be more focused and purposeful.

g. Principle of Facilitators and Barriers of Communication

There are many intervening variables lying between the source and the receiver of information in a communication process. The effect of these variables, on the (positive or negative) source and receiver, becomes a decisive factor of the success or failure of communication. Therefore, it should be managed to eliminate barriers of communication, as much as possible. Examples of such barriers include noise from rain, vehicular movement or from a neighbouring class.

3.2 Communication Situations

Communication may occur in a variety of situations or environments. These may be grouped in the following types.

a. One on One Communication

This form of communication takes place between two individuals. Most of our day-to-day informal or formal communication occurs in this form. Communication between husband and wife, shopkeeper and customer, relatives, friends, two strangers, colleagues, lovers is examples of one on one communication.

b. Small Group Communication

This involves communication among more than two people; examples include family members, classmates, and passengers in a commuter bus or railway coach. The communication may also take place between groups such as between elders and the representatives of youths in a locality.

c. Large Group or Public Communication

This involves a large number of people or individuals or groups. It is usually conducted in an organized or formal way. Examples are the kind of, communication engaged in during political party meetings, college assemblies, religious etc.

d. Organisational or Institutional Communication

This is the type of communication carried out within the premises of factories, government offices, police and army barracks, hospitals etc. The style of this type of communication is formal, systematic, planned and organized.

e. Mass Communication

This is carried out through different types of mechanical, electronic means; examples are the mass media, radio, television, video, cinema, films, books, e-mail, internet, tele-conferencing, satellite communication and transmission etc. There may not be face to face interaction between the communicators, mass communication remains the most effective way of disseminating information in contemporary times.

SELF ASSESSMENT EXERCISE

1. Try to list the principles of communication and examine them one by one on your own.
2. Identify the five main situations of communication.

4.0 CONCLUSION

The effectiveness of communication, especially in the classroom depends to a large extent on the ability of the teacher to follow the principles of communication. Teachers are therefore advised to observe these communication principles when teaching.

5.0 SUMMARY

In this unit, the principles of communication and communication situations are discussed. This is very essential in order to assist the teachers with their daily interaction with the students in the school system.

6.0 TUTOR-MARKED ASSIGNMENT

1a. Examine the main principles of communication
  b. Of what importance are these principles in the communication process?
2. Discuss the main types of communication situations

7.0 REFERENCE/FURTHER READING

Mangal, S.K. & Mangal, U. (2009). Essential of Educational Technology New Delhi: PHI Learning Private Ltd.

UNIT 5: BARRIERS TO COMMUNICATION

CONTENTS

1.0 INTRODUCTION

Every communicator wants his/her communication to be effective. But no matter how skillful a communicator is, if he/she does not identify or envisaged barriers to his/her communication, it will not be effective. As communicators we should endeavour to make our communication effective by eliminating some of the barriers that will hinder its flow.

2.0 OBJECTIVES

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

- Identify and discuss the main barriers to effective communication
- Proffer solutions to the identified barriers of communication.

3.0 MAIN CONTENT

In this unit, the barriers to effective communication will be examined. For ease of understanding, the barriers will be considered under two main headings. These are internal and external barriers to communication.

3.1 Barriers to Communication

The effectiveness of communication depends, very much, on the presence or absence of the elements and conditions, facilitating or obstructing the proper flow of communication. The elements obstructing communication flow of communication are referred to as communication barriers. These could be internal or external in nature. Both the internal and external barriers are highlighted below:

3.2 Internal Barriers

- Poor physical health or illness
- Poor background, in terms of previous learning and general knowledge about the subject of communication
- Poor mental health and psychological imbalances such as prejudices, lack of attention, feeling of insecurity, anxiety, depression and dissatisfaction.
- Inability to understand the symbolic expression, graphical representation etc, used in the communication process.
- Poor eye sight.
- Unwholesome hereditary traits

3.3 External Barriers

- Noise and other similar distractions
- Polluted environment
- Poor visibility
- Environmental and physical discomfort
- Improper functioning of the communication channels involving audio-visual materials and equipment.
- Unhealthy rivalries and competition among participants.
- Lack of proper motivation, incentives, zeal and enthusiasm necessary for sender and the receiver to remain active.
- Poor coding system
- Inadequate reinforcement
- Communication of distorted ideas or information.

4.0 CONCLUSION

Communication is very unique in teaching and learning process. It is therefore necessary for communicators to understand the basic communication situations and the envisaged barriers to communication process.

5.0 SUMMARY

Every communicator tries as much as possible to ensure perfect and uninterrupted communication. Despite all the efforts, some barriers to communication are usually identified in the communication process. To be able to really communicate effectively, communicators have to master the skills of communication perfectly, and minimize or eliminate likely barriers to the communication process.

6.0 TUTOR-MARKED ASSESSMENT

1. Identify and discuss any five main barriers to effective communication.
2. Suggest remedies to combat the identified communication barriers.

7.0 REFERENCES/FURTHER READING

Mangal, S.K. & Mangal, U. (2009). Essentials of Educational Technology. New Delhi: PHI Learning Private Ltd.

UNIT 6: FUTURE OF COMMUNICATION TECHNOLOGY

CONTENTS

1.0 INTRODUCTION

In this unit, we shall examine the future possibilities of communication technology and specifically the promises it holds in terms of its application in education. It will be pertinent, in commenting about these future possibilities, to reflect on some basic issues concerning the various challenges, achievement and weakness of communication technologies.

2.0 OBJECTIVES

By the time we study this unit carefully, we should:-

1) Describe the trends of communication technologies.
2) Discuss the achievements and weaknesses of communication technologies.
3) Identify the future trends in communication technologies.

3.0 MAIN CONTENT

3.1 Challenges of Communication Technologies

We have read in recent studies about the pervasiveness of information communication technologies all over the world. These communication technologies in their diversity and capabilities are upturning the life pattern of people and organisation. According to Baur, (1982), they are playing era increasing role in the economic and social growth of every nation. This communication technology is concerned with every aspect of human endeavour, particularly in education, health, environment, safety, economic, etc. The communication technologies have now become the decisive ground for the social-economic development of every country, and in most cases, determining the gap between developed and developing countries.

The passion in the continuing development of these communication technologies has significantly expanded the range of communication services, hence enhanced the efficiency of telecommunications. In almost all activities today, information is presented in diverse forms viz voice, text, data or image and these can be exchanged with people anywhere in the world within a space of time. Nevertheless, the urge and demand for better functions of these technologies in all sectors continue to pre-occupy the policies of every nation of the world, particularly the third world or developing nations. Therefore, the requirements for communication technology in developing countries are in constant increase, since telecommunication has become focal points for social interaction, public awareness and life-long education in the developing countries. These new dimensions of communication technologies are required to overcome the problems economic, political and social factors which are due to the explosive growth in their population.

3.2 Evaluation of Communication Technologies

3.2.1 Achievements

We know generally that communication technologies in their diverse formats have contributed immensely to the growth of education and in particular distance education. Specifically, communication technologies are used in distance education for the following purposes:-

a) ***Course Planning:-*** At this point, the computer becomes very handy and useful, as it provides basic information about prospective students. The computer can also be used for the feasibility study for launching a particular course.

b) ***Course Management:-*** In this level, the computer is used to store all the data generated in process of planning and implementation of the course. The

computer is also used also to convey the feedback from the students and Councillors, which may have been stored previously.

c) ***Student Support Services:-*** The use of communication technologies in education have tremendously infused diverse media in the learning process which encourage and support distance learners. We do know that student support is the mainstay in the successful implementation of distance education system, which can be mainly derived through a meaningful use and application of electronic media.

d) ***Print Material:-*** This is the primary instructional input in the distance education system. The modernity in technology has lead to improved quality, efficiency and reduced cost of materials to the benefit of the students. The print materials in this era has enormous pedagogical support built into them, hence, have brought in a great change in their quality and instructional utility.

e) ***Radio Broadcasting:-*** This is one element that has been used to enhance distance education and to bring education to the door steps of all that desire it. It has helped to make education accessible to all students, which is the major objective of distance education. We should also know that radio can be used to provide course-based programmes and vital administrative inputs, which reduces the time gap and ensures faster communication.

f) ***Audio and Video Cassettes:-*** These communication components provide the learners with asynchronies experience in their learning efforts. The learners have access to pre-recorded audio and video cassettes at their various study centres, hence have the privilege of listening or viewing any broadcast that they may have missed at its live broadcast. The major benefit of these media component is that they are handy- i.e can easily be purchased and promote individualized learning. There are other communication components that we have not discussed here, which also helped in the growth of distance education, such as telephone, videotext and teletext and computer etc. We can read up these components from the referenced.

These various formats of communication technologies have led to more awareness in the area of individualized learning, they make education more accessible, attractive hence motivate the learners, who retain more what they have learnt.

3.2.2 Limitations

We will remark here that though the communication technologies have come to stay with us, particularly in educational development, there are major factors that

have showed down the growth or led to poor performance of its services. These factors include:-

a) ***Inadequate Resources:-*** One major constraint that has frustrate the rapid growth of communication technologies in education is lack of fund, particularly in the developing countries. This fund constraint has reduced the acquisition, expansion and modernization of telecommunication infrastructure.

b) ***Ineffective and Inefficient Operation***:- The organisation and management of the operational aspects of these communication technologies have been benefit of effective and efficient organisational management, particularly for the educational system. We should note here that the effectiveness and efficiency of communication technologies depends largely on their implementation and utilization in the educational sector. It will be very difficult to realize the envisaged outcome in terms of performance when these communication technologies are wrongly used.

c) ***Inadequate Polices:-*** This is another major constraint in the application of communication technologies in education. This lack of effective policies has resulted to lack of incentive for improving performance and generating investment for the expansion of these technologies in the area of education and training.

d) ***Lack of Planning, Monitoring and Evaluation:-*** We observe with utmost dismay that the implementation of communication technology is not normally planned with clear-cut objective which could be achievable. The monitoring mechanisms are also not designed or strictly monitored to adhere to required standards. Continuous evaluation is another strand that has been neglected as feedback services are not provided to improve the system.

e) ***Lack of Instructional Design Knowledge:-*** It is a common knowledge that most teachers in the educational system lack the knowledge of instructional design that is compatible with the communication technologies, hence prefers to continue with the traditional lecture methods.

f) ***Cost:-*** The cost of communication technology, particularly in the developing countries are very high, hence it becomes very difficult to provide these technologies to all the institutions. In the case of distance education, providing telecommunication access especially access to computers for the students who are scattered across the country and beyond becomes difficult. And when some are acquired, there exist the problems of logistics or technical problems that inhibit the actualization of the objectives.

3.3 Future Expectation of Communication Technologies

We know that the ability to predict the future depends on the accurate and careful examination of the process and the progress of the present. Therefore, the future expectation of communication technologies in education will depend on the actual use of these technologies in education at the present moment. One fact that is worthy of note of that we are advancing to an era of wide-spread use of technology which are of high speed processing capability with user friendly devices. We can look at the projection of the future of these technologies in education under the following headings:-

a) ***Communication Network:-*** One area that will determine the future of communication technologies in education is the nature of transmission networks. The match on the amount of access allowed to these technologies and the ever increasing demand by educational institutions for telecommunication networks. Also, there will be the need to advance or improve the quality or sophistication of the electronic devices/systems such as video text, video-disc, video phone etc to cope with rapid access to documents, data processing, intelligent support, individualized services etc.

b) ***Satellite Communication:-*** The future role of this component has been of concern to most experts in communication industry. The enormous services required for telecommunication services will be achieved through satellites and this will certainly indicate the scope of and need for communication technology. Communication satellite ushers in unprecedented transformation to communication itself and reduces time and distance, hence enabling people in all areas to share experience with each other.

c) ***Internet:-*** Internet has come to stay as a technology of the future with its multimedia capabilities. This technology came on board with purely text based system to send and receive message but today, it is fully a multimedia based system with capacity to deliver video, sound, picture, images etc, and provides a high level interactivity. Therefore, internet remains one major technology that will hold future advancement in educational system.

4.0 CONCLUSION

There is little doubt that we are engulfed in a world taken over by technologies in their various capabilities. These technologies have transformed the way people live, function and learn. It has literally reduced the world to a global village, and widened access to information of all categories. Despite the over problems associated with these technologies, the future seems clear in its use as a major tools in the transformation of the educational system, particularly, in the developing world.

5.0 SUMMARY

This unit has examined the advancement so far made through the communication technology and the attendant problems as exonerated here-in. We have also submitted that the future of these technologies is secured due the surge in the use of the technologies, particularly in the educational system.

6.0 TUTOR-MARKED ASSIGNMENT

1) Discuss the trend of communication technologies in Nigerian educational system.
2) State the achievement and weakness of communication technologies.
3) How can you justify the future growth of communication technology?

7.0 REFERENCES AND FURTHER READING

Baur, H. (1992). Technological Perspectives of *Telecommunications* for the gos, Telecommunications, vol. 59 (vii-viii), July – August, 1992.

MODULE 2

UNIT 1: MEANING AND ORIGIN OF MEDIA

CONTENTS

1.0 INTRODUCTION

The process involved in communication has been of universe concern to man since his existence. The arrangement of materials that facilitate this human communication has been classified as media, aids, apparatus, hardware or software (Ibe-Bassey, 2004). This media permeates all human endeavour for effectiveness and efficiency of interaction. This unit shall examines the various strands of media from its origin to the usage in education.

2.0 OBJECTIVES

By the end of this unit, we should:-

1) State the meaning of media
2) Trace the origin of media
3) Identify the early materials used as media
4) State the contributions of printed communication

3.0 MAIN CONTENT

3.1 Meaning of Media

One question we need to proffer answer to is – what is the meaning of media? Basically, media is the plural formation of the word medium. Whichever one is used, it stands for channel through which information is disseminated to people. It could also refer to materials or equipment that is used in disseminating information across to people.

3.2 What is the Origin of Media?

Human activities since inception of creation have been marked by transition. In media development, the transition has moved from the oral tradition to pictorial symbols, printed materials and to the present pervasiveness of information communication technology. Media, which we have acknowledged as means of transferring message from a source (sender) to another (receiver), is becoming more dynamic than any other human Endeavour. This man's skill of interaction within their species has existed from old. Agun and Imogie (1988) documented that at the Stone Age, rocks and stones were used as media for human expression and communication. In most African societies, the oral tradition included the use of sounds from materials such as the gun-shuts, metallic gang, carved woods, talking drums etc; as means of communication. In these societies, serious messages were passed to the audience through any of these media depending on the type of occasion.

This oral tradition of words and sounds transited to inscriptions on the walls as alphabets were developed. In most of these societies, the inscriptions on the walls and tablets, which were interpreted and meaning derived became very popular. Example of this pictorial inscription is the narrative composition left on the walls of Lascaux, which represented their own way of communicating with the spiritual world. These inscriptions on the walls which were well-preserved drawings, showed the deep religious beliefs, apprehensions, ambitions and general life pattern of the people. Another example of the pictorial inscription is the type developed by Sumerians called cuneiform (Pictographs). This cuneiform was a writing done on wet clay tablets which communicated meanings

to the audience. The hieroglyphic writing was developed in Egypt and was specifically used by special scribes to keep records for the priest class.

The milestone in media history took a quantum leap in 1447, when a German – Johannes Gutenberg invented a printing machine. His printing press mass produced books by 1456, which ushered in revolution in the way people think and learn (Rodman, 2006). The rise of printing press brought eclipse to oral and pictorial- written tradition. According to Campbell (2000), Johannes Gutenberg's invention of printing press and movable metallic type took about four hundred years for the print era to evolve fully and displace the oral tradition.

3.2.1 Contributions of Printed Communication

We may want to know what contributions this printed communication has offered to media growth. One major historic achievement of printing press is the introduction of mass production of books which led to print revolution and mass marketing of books. Another veritable tool in the achievement of mass production is duplication/copying. This tool was used to replace the hard manuscript system which suffered the scribes, who hand-copied a text several times to produce plenty copies. Duplication provided galloping speed resulting in mass quantities of the same book being produced. These multiple copies resulted to massive reduction in the prices of books produced. Consequently, this reduction in prices allowed the ordinary people to obtain or purchase their own copies and ownership of books was no long the exclusive reserve of the rich. Printing press also introduced major social and cultural changes, because it transmitted knowledge across national boundaries. It took communication outside the realm and focus of isolated community life. Individuals became initiated into the concept of nationalism and were encouraged to be free minded in their way of thinking.

3.3 Media in Education

In the preceding chapter, we learnt that media is the plural of medium, which is a channel through which messages are transmitted from one source to another. Ibe-Bassey (2004) and Ayelabi (2005) further informed us that media could refer to a collection of materials and equipment that can be used effectively for communication. It is pertinent therefore for us to know that when these materials and equipments are converted by teachers for use in teaching and learning, we call them educational media.

We must be informed that educational media are broad and encompasses the totality of objects, devices and any such materials used by teachers to transmit, transfer or share their preplanned lesson contents with educational media as "a broad range of information carrying resources that constitute an integral component of classroom teaching and learning, and are utilized in an

instructional process with the hope of facilitating effective and efficient communication in the teaching and learning process." The media therefore can only be regarded by us as educational media when they set out primarily to enhance the teaching and learning situation in the classroom. Ibe-Bassey (2004) confirmed that the educational media is effective when the behavioural objectives, the learners' characteristics, the learning contents, the instructional strategies and the evaluation techniques of the lesson can be matched to the media. In the same vein, AECT, (1977) opined that educational media are born out of communication revolution, which can be used for instructional process alongside the teacher, textbook and chalkboard.

We must therefore bear in mind that whatever media are available, if such are not employed for use to enhance the teaching and learning classroom, such media will never be regarded as educational media. In the same vein, any equipment or apparatus in whatever form that its primary purpose of use is to advance or facilitate teaching and learning in the classroom, such equipment or material qualities as educational media.

4.0 CONCLUSION

This Unit is concerned with the meaning and origin of media, which is a veritable tool in human interaction. Media has excited along with man from the inception and has transited or metamorphosed from different stages to the present pervasiveness of information communication technology. Media as a major instrument in communication, has been infused into education, where its impart has been so glaring.

5.0 SUMMARY

We have defined media as the channel through which information is disseminated to people on one hand and, the materials or equipment that are used in disseminating information across to people. Media has been used for communication since the inception of man and it has transited from the oral tradition, pictorial, printing press to the present ICT era. The development of printing machine transformed the communication culture as it open up information knowledge to all strata's of the society. And this advancement affected the educational sector.

6.0 TUTOR-MARKED ASSIGNMENT

1) What are the stages of media transition?

2) What major contributions can you fine to printed communication?

3) What media is used in education?

7.0 REFERENCES AND FURTHER READINGS

Association for Educational Communication & Technology (1979), *Educational Technology:* Definition and Glossary of Terms, Washington D. C: AECT

Agun, I. and Imogie, I. (1988). *Fundamentals of Educational Technology*. Ibadan: Y-Books

Ayelabi, A. (2005): Essentials of Educational Technology Lagos: Raytel Communications Ltd.

Ibe-Bassey, G.S. (2004): Principles & Practice of Instructional Communications. Uyo Dorand Publishers.

UNIT 2: CLASSIFICATION OF EDUCATIONAL MEDIA

CONTENTS

1.0 INTRODUCTION

Media in Education numerous and diverse in appearance and functions, hence grouping all together as instrument, equipment or materials that arouse learning may be misleading. Educational experts have been concerned on various ways of classifying media for effective utilization, and efficient result.

2.0 OBJECTIVES

By the end of this unit, we should:-

1) Classify educational media into different groups
2) Discuss the sensory stimulus mode
3) Discuss the print and electronic media

3.0 MAIN CONTENT

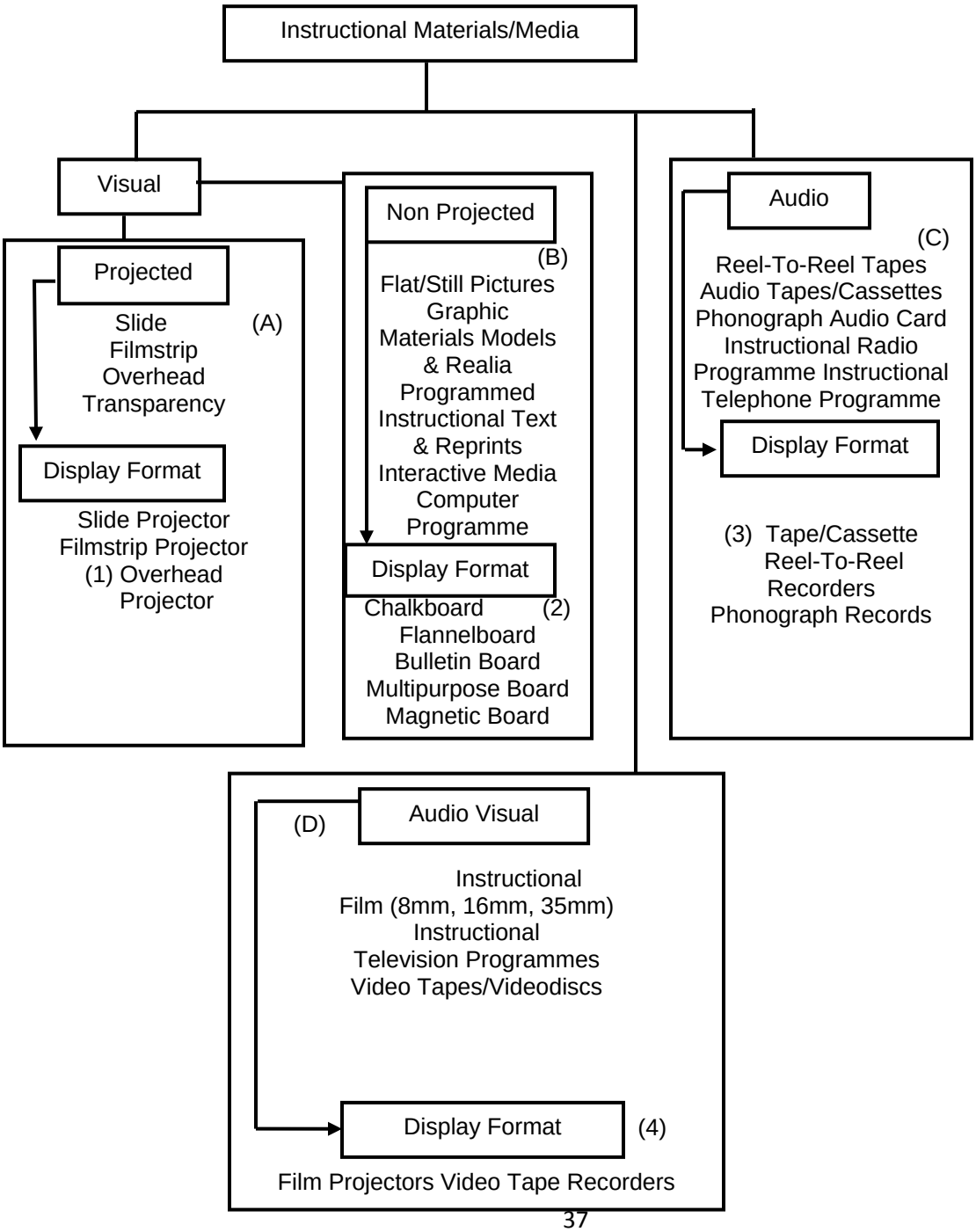
3.1 Classification of Educational Media

It is important for us to know that the historical evolution of educational media affect the attributes accorded to it by those in education industry. Some of these educational experts including teachers and their students often refer to educational media as “teaching aids” or “instructional aids,” and this type of attribute delimit the meaning of such media material to mere instruments or apparatus which are used by the teacher in the process of teaching. In that case, we will look at such media as teacher centred, teacher-managed and teacher controlled within the concept of educational media- in teaching and learning environment. One major fact that we must note is that these material in this teacher centred perspective are also used to record, store, preserve, transmit or retrieve information, while the learner plays a secondary role whenever these materials are eventually turned in for use in the classroom.

In classification of educational media, we should realize that no single mode is considered perfect or correct. There are diverse submissions educational specialists on how these educational media should be classified. A review of these opinions show that Adeyemi (1984:4) proposed that these media be classified based on their attribute of display, graphic audio and projection. Agun (1988:135) opined a classification based on print or non-print materials dimensions. In the same vein, Akanbi (1988:87) submitted a classification based on production superiority, ie whether they are produced locally, imported or commercially produced, which invariably determines their cost, in terms of expensive or inexpensive. On the other hand Ibe-Bassey (1988:102-149) classified these materials based on the sensory modalities, that is the stimulus mode that the given medium or material is used to evoke the response to the learners within a given instructional process.

3.2 Classifications into Sensory Modalities

In this section, we shall examine some of these classifications – the first shall be the sensory stimulus modes as exponent by Ibe-Bassey (1988:102-149).


Instructional Materials/Media
Visual
Projected
Slide
Filmstrip
Overhead
Transparency
(A)
Display Format
Slide Projector
Filmstrip Projector
(1) Overhead
Projector
Non Projected
(B)
Flat/Still Pictures
Graphic
Materials Models
& Realia
Programmed
Instructional Text
& Reprints
Interactive Media
Computer
Programme
Display Format
Chalkboard
Flannelboard
Bulletin Board
Multipurpose Board
Magnetic Board
(2)
Audio
(C)
Reel-To-Reel Tapes
Audio Tapes/Cassettes
Phonograph Audio Card
Instructional Radio
Programme Instructional
Telephone Programme
Display Format
(3) Tape/Cassette
Reel-To-Reel
Recorders
Phonograph Records
(D)
Audio Visual
Instructional
Film (8mm, 16mm, 35mm)
Instructional
Television Programmes
Video Tapes/Videodiscs
Display Format
(4)
Film Projectors Video Tape Recorders

(Source- Ibe-Bassey 2004)

Taxonomy of Instructional Material and Media Based on Stimulus Modes.

1) ***Visual Media:*** This is gleaned from the visual stimulus, which can describe visual instructional materials and media. The visual media will include all the teaching materials which evoke the sensory organs of sight. These materials can be sub-categorized into projected and non-projected visuals.

   i) ***Projected Visual Materials*****:** These are software materials that carry instructional information. They include films, slide, filmstrips, transparencies etc. These materials can be sourced or produced locally and commercially, either by the teachers, students, instructional designers and instructional developers. They require electricity and projectors for their display format.

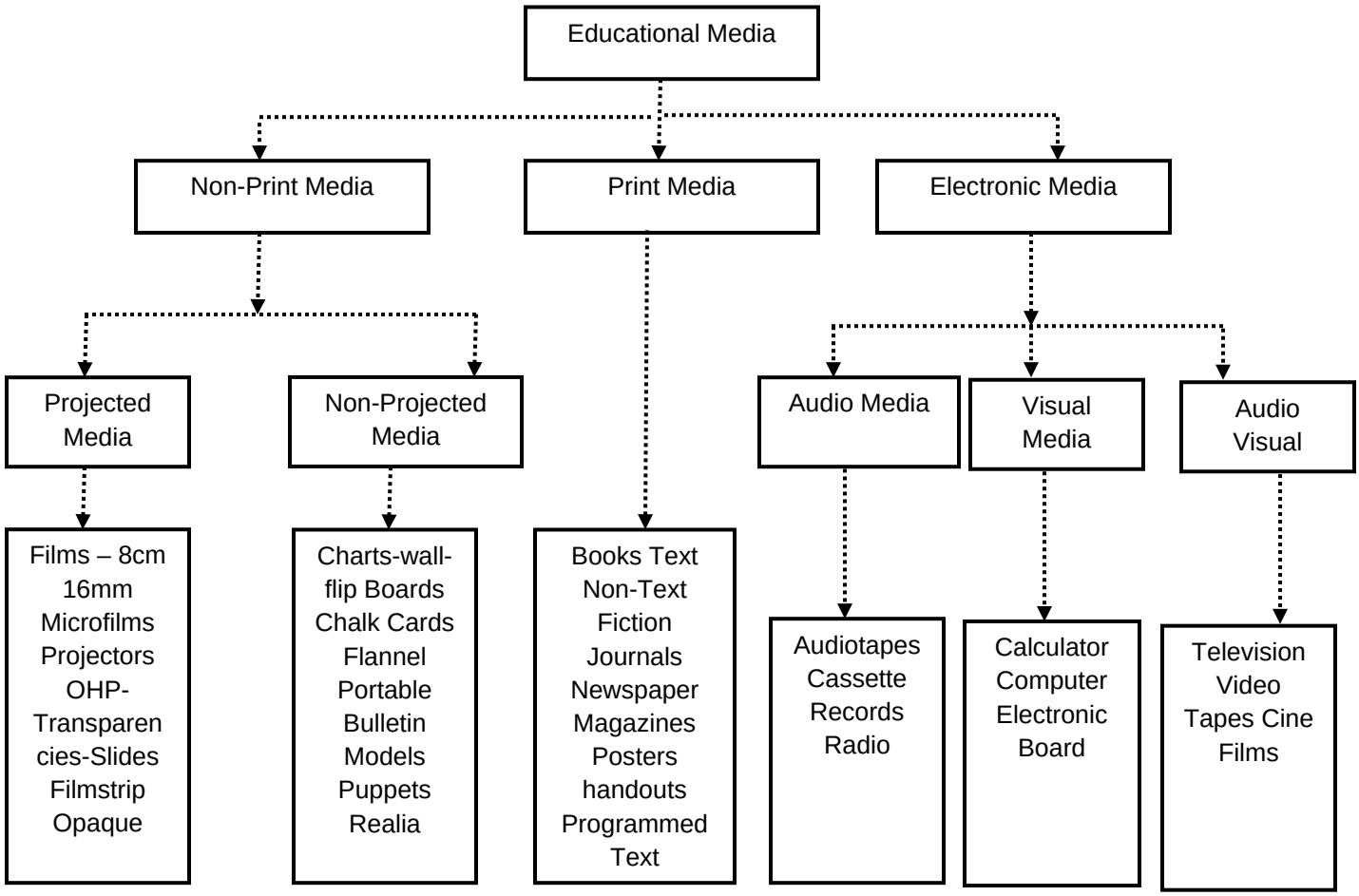
   ii) ***Non-projected Visual Materials*****:** These are the most common media materials within the learning environment. The cost of these group of materials are generally low, ease of production and are accessible to all. These non-projected materials unlike the projected, do not require electricity, and include – pictures, maps, photographs, graphics (posters, charts, graphs, drawings, diagrams, sketches, cartoons) models and realia. Also in this group include specimens, textbooks, course materials, journals, magazines, newspapers etc. Their display format includes chalkboard, easel, flannel boards and other educational boards.

2) ***Audio Materials:*** This is gleaned from audio stimulus, which can describe audio instruction materials. These include the varieties of teaching and learning devices, equipments that evoke the sensory modalities of hearing. In this group are records, audio cards, radio and telephone instructional programmes, public address systems, tape recorders, human voices which are directed towards teaching and learning. The presentation format of these group include recorders and readers, which are used for lessons in all fields and are very useful to the teaching of the blinds. The production of audio materials call for team work and involves directors, artists, engineers, producers etc. Exceptions occur sometimes with the experienced teachers who do record their instructional message network radio programmes for subsequent use in their classroom, thereby making the play back system operational and useful.

3) ***Audio – Visual Materials:*** These refer to such instructional materials which avail the students the opportunity of using their sensory modalities of sight

and hearing in the same context. They combine motion and sound in their illustrations. Their display formats involve film projectors, video tape and cassette recorders, which are the hardwares that constitute the technologies of instruction. Ibe-Bassey (2004:41) averred that film projectors and video tapes recorders are like tape recorder or slide projectors which do not store information or lessons but do assist in retrieving the information and lessons for distribution and learning. Examples of audio-visual media include instructional television and video programmes, films, which appear in different formats – (8mm, super 8mm, 16mm and 35mm)

3.3 Classification by Print and Electronic Media



Educational Media Categorization

Educational media could be classified as:

i) Print media
ii) Electronic media

This classification may appear more elaborate.

i) ***Print Materials*:** These include all instructional materials that are printed on paper, and they cut across textbooks, magazines, newspapers, journals, course materials, handouts, workbooks etc. These are commonly used by teachers and students in the learning environment. They are cost effective and present varieties of instructional information.

ii) ***Pictorial materials:*** These refer to the entire family of projected/electronics and non-projected materials. We have explained all these in the preceding units.

iii) ***Mass Media:*** These include such equipments and gargets that are used to disseminate information to a large spectrum of audience who may be in different location at the same time. Examples of these are instructional radio, instructional television etc.

iv) ***Two or Three Dimensional Materials:*** These are teaching materials constructed to aid or enhance learning. They are two dimensional when they have only length and breadth, and 3 dimensional when they have length, breadth and depth.

v) ***Graphic materials:*** These are visual materials that can be locally produced by teachers and students alike. They contain images that are visually symbolic and require special attention for the students to interpret symbolic cues.

vi) ***Community Resources:*** These will include all people or places and things which are outside the learning environment but a very important in the promotion of educational media of the learners.

4.0 CONCLUSION

This unit has presented to us the idea that educational media can be classified into different segments. These classes into which they are put differ depending on certain variables. Some experts in education have capitalized on the fluidity of this classification to propose their own taxonomy.

5.0 SUMMARY

Educational media classification is not delimited to any particular mode. Some experts have classified these educational media based on their attribute of display, others favour classifications based on superiority, while some others

classify then based sensory modalities. Whatever classification is achieved, media performs the major role of enhancing performance in education.

6.0 TUTOR-MARKED ASSIGNMENT

1) Discuss the sensory stimulus mode of educational media
2) Identify the various modes into which educational media are classified.

7.0 REFERENCES AND FURTHER READING

Adeyemi, M. A. (1984). Strategies for Integrating Educational Media into Higher Education in Nigeria. in K. Akinyemi & Y. Ajai-Dopemu (Eds) Educational Technology in Nigeria Schools, Nigeria Audio-Visual Association Monograph series.

Agun, I. (1988). Educational Media Management, in I. Imogie & I. Agun (Eds) Fundamentals of Educational Technology, Ibadan: Y-Books, Associated Book Makers.

Akanbi, K. (1988). Selection, Utilization and Evaluation of Instructional Media, in I. Imogie & I. Agun (Eds) Fundamentals of Educational Technology, Ibadan: Y-Books Associated Book Makers.

Ibe –Bassey, G. S. (Ed) (1988). Fundamentals of Educational Technology: A Text & A Reader, Uyo: Dorand Publishers.

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UNIT 3: USEFULNESS OF EDUCATIONAL MEDIA

CONTENTS

1.0 INTRODUCTION

Media have been used generally to accomplish some basic needs of humanity. In Education, media stands tall as a major component of instruction. The classroom teacher while developing his content, considers the quality and type of media that are necessary for the achievement of the instructional goals. In this unit, we shall consider the various strands of media functions in education.

2.0 OBJECTIVES

By the end of this unit, you should:-

1) Discuss the functions of educational media
2) Describe various ways for utilizing educational media

3.0 MAIN CONTENT

3.1 Functions of Educational Media

The role educational media play in teaching and learning has made it an integral part of classroom instruction, hence it is pertinent that we take a detailed look at the various contributions these materials provide for the teachers, students and the entire teaching and learning environment.

i) Educational media is used to translate abstract ideas to concrete reality, transforming the learning experience to pleasant and memorable activity. The use of motion pictures and realia provide the learners absolute life experience that evoke their senses, motivate and glue them to the learning activities.

ii) The use of educational media help in the building of vocabularies of the learners as the growth of meaning is always expanded by the translation of the abstract concepts and ideas. The learners form their own words out of the real objects presented to them as they also expanciate and explore various meanings associated to the abstract idea turned real.

iii) The educational media brings reality in terms of experience which motivates the student for self enquiry and subsequently personal learning activities, cumulating into new learning.

iv) These educational materials provide novel experiences that are not codified in any particular textbook. The students access these experiences from their diverse learning back grounds.

v) Educational media advances the effectiveness and efficiency of teaching-learning activities. It helps the teachers to be directional and systematic in the development of their lesson, while the students could for cast the step by step development of the lesson.

vi) The use of educational media helps in projecting little objects which ordinarily would have been difficult for the viewing of the learners. In the same vein, it could minimise or reduce large objects that cannot be brought into the classroom to a size that could be viewed in the classroom.

vii) Educational media promotes individualized learning in the learning environment. The educational materials prompt the students to explore learning activities without the aid of the teacher. This encourages students to learn at their own pace.

viii) Educational media gives credence or authenticates the assertions of the teachers. The teacher's position in any point is re-established by the realism evidenced in the media. The axiom that pictures don't tell lies is validated in this direction.

ix) Educational media eliminates undue verbalism in the part of the teacher and encourage systematic presentation of information, particularly, when such information is properly designed.

x) The media is very vital for the teacher, especially in planning their lessons, since these materials forms an integral part of their lesson, and complement their efforts. They also help the teachers to introduce scientific basis for instructional planning.

xi) Educational media also helps to develop continuity of thought in both teachers and students. The motion pictures are good example of the assertion.

3.2 Guideline for Educational Media Selection

The following are underlying factors that the teacher must put into consideration before selecting media for his lesson.

1) ***Lesson Objectives*****:** The most important thing the teacher must consider before selecting his media is the objectives set for the lesson. He must consider all the strands of the objectives, particularly as it relates to educational domains – cognitive, affective and psychomotor skills. The teachers selection of these media must therefore be dependent on the learning domain he wishes to lay emphasizes upon.

2) ***Content Compatibility*****:** In selecting the media, the teacher ought to confirm that the content of the lesson is compatible with such media. Again, the authenticity of the content, whether the informed contained in the media is not falsified, but valid and very current.

3) ***Availability*****:** The selection of media should also depend on the availability-in terms of purchase or producing the materials. The production could be local or through improvisation. It will not serve any instructional purpose selecting media that cannot be received when required.

4) ***Teacher's Expertise:*** It is a very significant point of consideration, the teacher's ability to manipulate or use the instructional materials in his/her classroom teaching. It will be meaningless if all the equipment are available but cannot be used or expertly manipulated for the learners to derive the maximum benefit.

5) ***Cost of Material*****:** Another veritable ground that must be considered in the choice of media for use is the cost of such material. The financial

implication of the media must be established and whether the school can make provision for such purchase before the teacher will list such material for use. At this stage, the teacher may consider the use of alternative cheaper materials or embark on improvisation.

6) ***Class Size*****:** This is another point that teacher ought to consider while selecting his media. The class enrolment in most cases determines the appropriate media which the teacher should consider. The material required for a small class size should not be appropriate for a large class size.
Interactivity of Media: In selecting media, the teacher ought to consider the level of interactivity inherent in the media, as this will promote learner to learner interaction, learner to teacher and learner to media interaction.

3.3 Procedure for Media Utilisation

We have learnt that the use of media by the teacher requires an expertise experience, hence, the utilisation of media should conform to the under listed procedures:-

1) ***Rehearsal by the Teacher*****:** It is very pertinent that the teacher should review his preparation including his/her psychological, mental and physical readiness for the utilisation of the media. The teachers consider the possibility of achieving his objective using the type of media he/she has selected. The teacher should develop a strategy on how to use the materials to achieve maximum utility.

2) ***Environmental Consideration:*** The teacher should give proper arrangement consideration, in terms of materials and equipment required for the classroom utilization. The teacher ought to confirm the functionality of all the equipment and their accessories for use that the scheduled class period.

3) ***Class Readiness*****:** The teacher also should confirm the readiness of the class to use the selected materials for learning. The materials should be presented to the learners, clarifying any ambiguity while enumerating the benefits that are accruable with the use of materials.

4) ***Utilize Media:*** At this stage, the teacher should ensure effective and proper utilisation of the selected media. The media must be used based on its functionality and should evoke the sensory modalities for which it was intended to achieve.

***5) Evaluation*:** The teacher should review his/her lesson by permitting open discussion on the processes and application of the media to the lesson. The learner's experiences should be assessed through tests and may be assignments. The outcome of these tests and assignment could lead to modifications.

4.0 CONCLUSION

In this unit, we have been exploring the usefulness of educational media in totality. We learnt in the preceding unit that media in Education are classified diversely. In the same vein, the educational media function very usefully in diverse situations. Also, there are basic guides on the manner the education media are utilized in instructional content, to achieve the desired result.

5.0 SUMMARY

The roles of educational media are vast. They include translating abstract ideas to concrete reality, building vocabularies of learners, etc.

To achieve this functions, educational media selection must adhere to certain basic guide lines, such as lesson objectives, content compatibility etc. And there must be a laid done procedure in utilizing the educational media, such as rehearsal by the teacher, class readiness etc.

6.0 TUTOR-MARKED ASSIGNMENT

1) Identify the various functions of educational media.
2) What guideline will you recommend for the selection and utilization of Educational media?
3) Discuss the procedure for the utilization of educational media.

7.0 REFERENCES & FURTHER READING

Abimbade, A. (2006). Principles and Practice of Educational Technology. Accra: Woeli Publishing Services.

Ajelabi, A. (2005). Essentials of Educational Technology Lagos: Raytel Communication Ltd.

Ibe-Bassey, G. S. (2004). Principles and Practice of Instructional Communications. Uyo: Dorand Publishers.

UNIT 4: MEDIA IN DISTANCE EDUCATION

CONTENTS

1.0 INTRODUCTION

In this unit, we shall present the various strands of media that are prevalent in distance education. In doing that, we shall first review briefly the concept and meaning of distance education

2.0 OBJECTIVES

By the end of this unit, we should:-

1) Define Distance Education
2) Identify Media Choice in Distance Education
3) State the Factors for Consideration in Media Choice

3.0 MAIN CONTENT

Distance education was at a time referred to as – correspondence education, distance teaching, learner-centred education, open learning, open access, flexible learning etc. This form of education has attracted as many definitions as

there exist contribution on its form and practice. We shall present few of these definitions here. The American Journal of distance education (1987), defined distance education as institutionally based formal education where the learning group is separated and where interactive communications systems are used to connect instructors, learners and resources. COL (2003) defined it as education and training in which using learning resources, rather than attending classroom sessions, is the central feature of the learning experience. Whatever definitions are provided for us, we know that this form of education permits acquisition of knowledge and skills through mediated information and instructions.

There are basically three characteristics of distance education, and these are accessibility, flexibility and learner-centeredness.

i. ***Accessibility:*** All those who hitherto had restriction to education due to age, entry qualification, work, social or personal in terms of family restrictions can now access education without such restriction anymore.

ii. ***Flexibility:*** The learner has the opportunity to study at their own pace, close suitable time, place and subject, course or programme of their interest.

iii. ***Learner-Centeredness:*** The philosophy of ODL promotes accessibility and flexibility.

iv. Provision of good quality learning materials in learner friendly formats and;
v. Provision of adequate learner support system.

Apart from these characteristics, the distance education provides the following features:-

i. Separation of teacher and learner in time or place or in both time and place.

ii. *Institutional accreditation:* This means that the learning is accredited or certified by some institution or agency. This therefore distinguishes this type of learning form ones' own effort in learning without official recognition of the learning by the institution.

iii. *Use of Mixed-media Courseware:* This will include print, radio and television broadcasts, video and audio cassettes, computer-based learning and telecommunications. Here, the courseware has to be pre-tested and validated before use.

iv. *Two-way Communication:* This allows learners and tutors to interact (synchronous) and the one way passive receipt of broad cast signals (asynchronous) communications.

v. *Possibility of face-to-face meetings for tutorials:* Emphasizes here are learner interaction, library study, and laboratory or practice session.

vi. *Use of industrialised processes:* i.e, in large-scale open and distance learning operations, labour is divided and tasks are assigned to various staff who works together in course development team.

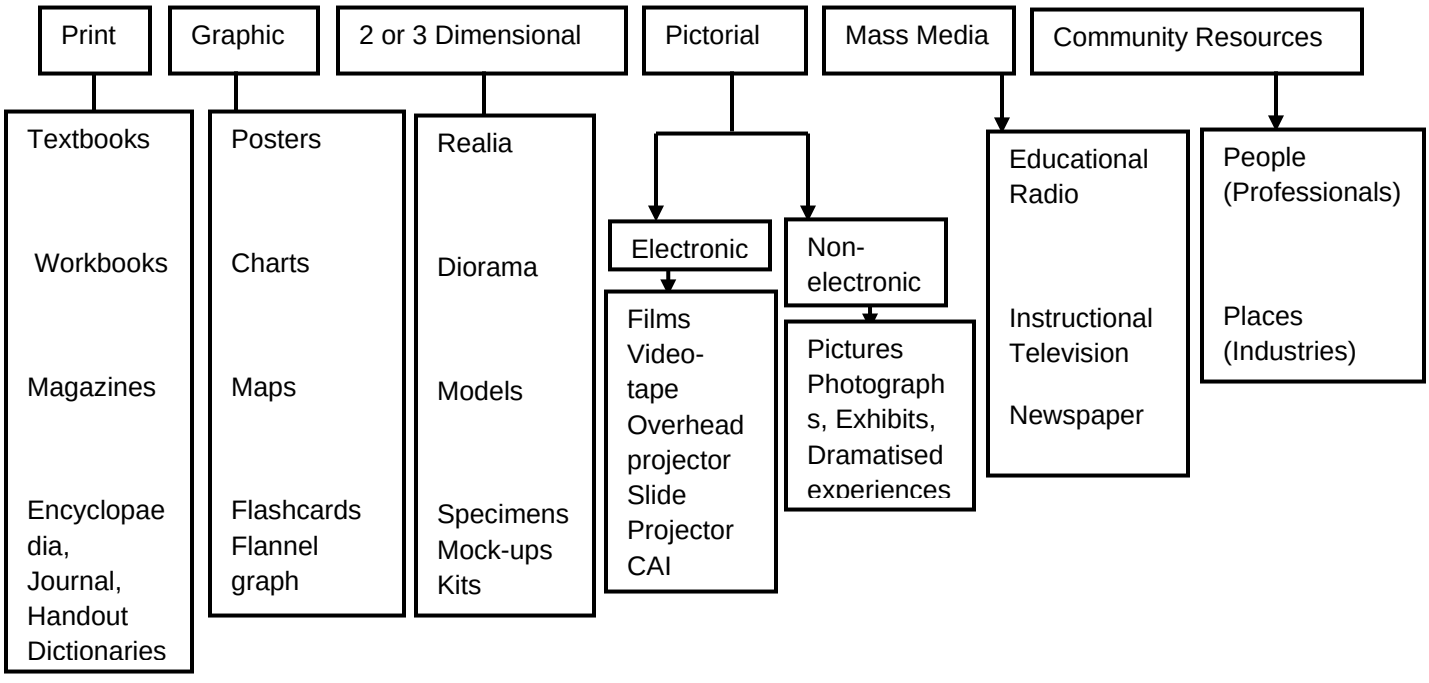
vii. A *Curriculum:* Learning must have an objective and therefore must have structure.

viii. *Measurement of Learning:* There must be measurement of learning, without which no learning can be observed to have taken place.

3.2 Choice of Media in Distance Education

The media choice by the instructor or designer of distance education programme should put into consideration the inherent characteristics which define the strength, limitations and capabilities for the delivery of distance education by these media. We must note that the inherent characteristic of these media will influence the ability of the media to accommodate learner factors, circumstantial factors, the subject matter and the desired interaction pathways.

CATEGORIES OF EDUCATIONAL RESOURCES



However, it is important to emphasize in this unit that media in instruction serve the same purpose, whether in conventional institutions or distance education. Henrich, Molenda and Russell (1982) observed that the effectiveness of

instructional media and media technology depends ultimately on the teacher, whatever the instructional setting. It is how the media are used that is instructionally important, not where they are used.

In distance education therefore, the various media types are used to suit the characteristics of the learning mode, which are distinct from that of the conventional mode.

3.3 Factors for Consideration in Media Choice

The following factors are crucial for consideration when choosing media for distance education:

i. ***Learner Factors:*** In selecting media for use in distance education, the learner must be put first into consideration in terms of the cost to students – purchasing either the print or video cassettes which should be more affordable by the students. The cost of the equipment necessary to utilize the media should also be considered.

The credibility of the media with the learner- the reception of the information contained in the media here is very pertinent. Some learners may consider as reliable information in print media than audio cassette, or more authentic information in audio-visual that mere audio cassette.

The medium should be used to enhance the content, not compete with, the content for the learner's attention.

ii. ***Circumstantial factors (of learners and educators):*** These factors are those that affect both the learners and the educators, which therefore apply to the production and utilization of media. Consideration must therefore be given to both social and economic systems in which media functions and how those systems influence media access, exposure and impact. We must note that certain infrastructure is required for some media, for example electricity, a radio station and internet access.

iii. ***Subject Matter:*** It must be considered that the nature of the subject matter will lead itself to different media. It is also important to observe that different components of the subject may be distinguished, such as a theory and a practical component, hence require different media formats. The cost and ease of updating of content varies between media, hence must be considered in subject matter consideration.

iv. ***Interaction pathways:*** This is an attempt to capture the various interaction that take place in the learning environment. First, the interaction that exist

between the learner and the learning materials, then, the interaction between the learner and teacher.

3.4 Types of Media for Distance Education

We may not exhaust all the media types available for use in distance education as technology advancement introduce new media capabilities in distance education.

- Printed materials
- Audio cassettes
- Video cassettes
- Radio (pre-programmed and live broadcasts)
- Television
- Video conferencing
- Computer programs
- Internet

4.0 CONCLUSION

This unit has been concerned with the various media available for use in the distance education system. To achieve, it is pertinent X-ray such media types as printed materials, Audio cassettes, Video-cassettes, Radio, Television, Video-conferencing computer programs and Internet.

5.0 SUMMARY

The various definitions of distance education have revealed three important variables or characteristics in this system of education, which are Accessibility, flexibility and learner-centeredness. The choice of a particular medium or the other in distance education is strictly dependent on the instructor or the programme designers, who must adhere to certain conditions why executing their task.

6.0 TUTOR-MARKED ASSIGNMENT

1) Define media in distance education.
2) What conditions are necessary for media choice in distance education?
3) List and discuss the various types of media in distance education.

7.0 REFERENCES AND FURTHER READING

Commonwealth of Learning International (2003). Tutoring in Open and Distance Learning: A Handbook for Tutors. Vancouver: The Commonwealth of Learning.

Heinich, R, Molenda, M. & Russell, J. (1982). Media and the New Technologies of Instruction. Canada: John Willey & Sons, Inc.

UNIT 5: EDUCATIONAL BROADCAST

CONTENTS

1.0 INTRODUCTION

Educational broadcasting is an encompassing name used to refer to radio and television broadcasting media with their components that are used for instructional gains. In this module, we shall examine first, the broad concept of educational broadcasting, its emergence in Nigerian educational system, contributions and weaknesses. Then we shall have a panoramic view of television and radio broadcast media with their instructional values.

2.0 OBJECTIVES

By the end of this unit, the learner should:

1) Distinguish between educational broadcasting and other broadcast.
2) Describe the usefulness of educational broadcasting.
3) State the historical emergence of educational broadcast in Nigeria.

3.0 MAIN CONTENT

3.1 Educational Broadcasting

We will refer to educational broadcasting as television and radio programmings that provide courses of study to their teaming viewing and listening audiences, through enlightening, informative, or intellectually simulating topics, which could be received at home, offices or in the institutions. In an attempt to provide meaning to educational broadcasting, Ushe, Job & Udosen (2007) married the definition of education and that of broadcasting. Hence, when the art of spreading information widely through sound and vision to a group or groups of people either to their homes, at listening or viewing centres and through electronic devices of several kinds are primarily concerned with non-formal or informal ways, it can be referred to as educational broadcast.

3.2 Categories of Educational Broadcasting

We can identify two categories of educational broadcast viz – Extensive and Intensive educational broadcast.

The Extensive educational broadcast is attained when the broadcast programmes are geared toward encouraging greater change of attitude among section of the general audience (Okwo, 1996, Ogunmilade, 1991). The programmes so addressed in this extensive broadcast target the adult and include –entertainment materials and general information education, which are majorly received at homes.

Intensive Educational Broadcast on the other hand are programmes specifically designed and disseminated to organized audience, which could be at formal school campus, community learning centres and are generally based on an approved curriculum content. Okwo, (1996) has referred to the radio and television that are so specifically programmed for this intensive broadcast as Instructional Radio and Instructional Television respectively. Examples of such programmes will be “let’s speak French, schools chanllenge/Debath, science quiz, mathematics competition”, Ushe etal (2007). Meanwhile, Radio and television programmes directed to extensive education broadcast are referred to Educational Radio and Educational television respectively.

Ushe etal (2007) has recognized the following classifications of educational broadcast – Direct classroom teaching, supplementary classroom teaching, intra-school broadcasting, informal pre-school and out-of-school education, formal adult education, informal adult education and integrated education and entertainment.

i. ***Direct classroom teaching:*** This refers to the use educational broadcast in direct classroom teaching institutions of learning or such other organised learning organization.

ii. ***Supplementary classroom teaching:*** this refers to the use of educational broadcast to enrich or supplement classroom instruction of the teacher.

iii. ***Intra*-School Broadcasting:** This also refers to the use of educational broadcast in the simulation of programmes which emanates from the institution and is received simultaneously over public address system or closed circuit television monitors, which enable all activities to be integrated.

iv. ***Informal Pre-School and Out-of-School Educational:*** This refers to the application of educational broadcast to educational programmes dedicated to children who are not of school age or those who may have come back from school.

v. ***Formal Adult Education:*** This refers to the registration of adults into programmes for which there is evaluation and certification. This form is always provided as a cooperative venture between the educational institution and the broadcasting provider.

vi. ***Informal Adult Education:*** This refers to the educational broadcast that does not have specific target audience, and is not confined to any curriculum or syllabus. Presentations in this type are not sequential, as each of the presentations is a complete entity with no relationship with the preceding ones. Examples of this type of broadcast is documentaries, and discussion programmes.

vii. ***Integrated Education and Entertainment:*** This refers to the educational broadcast programmes that are holistically organized and presented as entertainment issues but have some educational relevance. In this presentation, the audience end up with both physical, emotional and the feeling of an enriched mental experience.

3.3 Need for Educational Broadcast

It is imperative that at this juncture, we should ask why educational broadcast should be allowed to exist at all. We do know that there are diverse problems militating against effective and efficient instructional delivery in our society. More so, educational awareness has sky rocketed that the crowd seeking to learn can not be accommodated by the conventional mode only. We shall therefore examine the following factors as observed by Ushe etal (2007).

i. ***High Cost of Face-to-Face Education:*** The cost of providing conventional education to learners has become a night mare to the vast audience wishing to be educated. In the same vein, the facilities and equipment on ground in the established institutions cannot provide the required accommodation by

this surging crowd. There is also high cost of transportation, and difficulty of accessibility of institutions from remote areas, coupled with the heart raking cost of courseware materials. All these and more has made educational broadcast laudable alternative.

ii. This System also helps the education ministries to achieve a measure of balance in terms of inadequacy in the teaching force, particularly at the rural areas.

iii. It also encourages expertise in teaching across the various learning institution as it hinges mainly a synchronous mode – broad spectrum of learners receiving the same instruction from different locations at the same time and from the same "expertise presentation".

iv. Inaccessibility of conventional Education to some disadvantaged audience – we should by now appreciate that the conventional institutions are built with some categories of learners in mind, hence for closing some others learning chances. Therefore, such categories of learners, who are still very enthusiastic about education, the educational broadcasting close the gap.

v. *The migrant learners:* The conventional institutions are inadequate to cater for the learning needs of learners in the migrant – these include learners who work requires moving from one location to another, including their households. In this situation, educational broadcasting becomes a must use to provide education for such persons.

vi. The educational broadcast helps the teachers improve in their creating, since most teachers benefit from these programmes which are presented by their superiors or those who are more current with new media techniques.

4.0 CONCLUSION

This unit is concerned with educational broadcasting which is a medium of instructional dissemination by educational institutions. This is achieved through Radio or Television programmes which are designed and broadcast in either media or are targeted at a particular audience. This could be achieved through diverse ways, which we regard as classifications of educational broadcasting.

5.0 SUMMARY

Educational broadcasting, which television and radio programmes that are used to provide courses of study to teaming viewing and listening audiences has

become indelible component of distance education. This system of instructional strategy are categorized into varied parts viz extensive and intensive educational broadcasting. There are various factors which have encouraged the existence of educational broadcasting, which include – high cost of face-to-face education in their various forms.

6.0 TUTOR-MARKED ASSIGNMENT

1) How can you differentiate between educational broadcasting and the other forms of broadcasting?
2) Discuss the varied forms of educational broadcasting
3) What are the reasons for educational broadcasting?

7.0 REFERENCES AND FURTHER READING

Ogunilade, (1991)

Okwo, (1996)

Usher, Job, G. C. & Udosen, (2007). An Over View of Educational Broadcasting.

UNIT 6: INSTRUCTIONAL TELEVISION

CONTENTS

1.0 INTRODUCTION

In the preceding unit, we learnt the historical emergence of educational broadcast media. We also reviewed the various strands of educational media usefulness. We specifically learnt that educational media is the combination of television broadcast and instructional. In this unit, we shall discuss instructional television.

2.0 OBJECTIVES

By the end of this unit, the learner should:-

1) Discuss the various ITV delivery systems.
2) State the benefits of ITV.
3) State some demerits in the use of ITV.

3.0 MAIN CONTENT

3.1 Instructional Television

Instructional television (ITV) can be explained to mean all those broadcasts relayed directly to an organized program of formal instruction, which are directed at specified learners. These learners could be in the classroom as in (Schools, Colleges and Universities), and to individual viewers as in adult education. ITV can also mean any planned use of video programmes to meet specific instructional goals, regardless of the source of the programme – including commercial broadcasting or the setting in which they are used. In providing a broader definition Ushe etal (2007) explained that when the art of spreading information widely through sound and vision to a group or groups of people either to their homes, at listening or viewing centres and through electronic devices of several kinds, is primarily concerned with educating the people of the audience, be it formal, non-formal or informal ways – it becomes educational broadcast. Therefore, when this is achieved through television broadcast, it becomes instructional television.

3.2 Delivery systems

Delivery systems of ITV- the various methods which are used to package and transmit programs to users are referred to as delivery systems and these will include-

i. *Commercial Broadcasting:* This refers to various licensed commercial stations which produce educational programmes to reach mass audiences – through their commercial channels. These commercial stations play major roles in instructional television broadcasting. We must emphasize here that, there are periods when these stations programmes are not intentionally designed for education, but entertainment or mere information to the general public, yet, such programmes can not only be adopted for instruction but fits in perfectly as an instructional programme, and used by the classroom teachers. Examples of such programmes include- classic and contemporary dramas, dance and musical performances etc. All such programmes are aired by these commercial stations provide what could be regarded as incidental instructional opportunities. Their programme can also provide for a creative teacher an experiential background to build his learning experiences. The programmes of these stations also help in attitude formation as most viewers lean more on their role models in the dramatic series, particularly, these involving moral dilemmas. And this leads to value

clarification as may arrived at through the leading of a creative teacher in a discussion class.

ii. *Non-Commercial* Broadcasting: This refers to television station which are established and committed to operate for the public benefit instead of their own gain (private). Such stations were act as outlets for the network programming of the public broadcasting service. In these stations, some of their programmes are instructional programmes designed for specific school or college audiences.

iii. *Closed-Circuit Television:* This refers to television system which does not operate through the air waves controlled by the government agencies. In this type of television station, both the sender and receiver are physically linked by wire. This station can be owned by individuals who deserve to set them up and have the assured freedom, privacy and multi-channel capability it attracts.

iv. *Cable Television:* We shall refer to this type of station as community antenna –television (CAT). This is basically the idea of having a single tall antenna to serve a whole community, it has the advantage of providing public access or outlet for use by community and special interest groups. Hence, it permits educational institution to be plugged into this CATV system, and achieve the following:-

a) Transmission of several educational programmes simultaneously and repetitively, at different hours, providing flexibility in matching the school schedule.

b) Airing of specialized educational programmes to small subgroups.

c) Offers the possibility of retrieval of remotely stored libraries of video materials, enabling teachers, in duals and students access to materials on demand without much protocol.

3.3.1 Advantages of ITV

i. *Improved Access to Education:* Instructional television makes available education to the teaming populace who could not compete for a space in the conventional institutions. By this special means of broadcasting, large audiences can be reached at a low cost per person. ITV also provides enriched classroom activities and powerful learning experiences to learners.

ii. ITV presents great possibilities for stimulating teachers' creativity. It presents colour moving pictures with sound, which shares many of the instructional advantages of film.

iii. Takes education to the door step of the learners as these categories of people in their remote areas receive instructions without any restrictions. Learners are reached at their offices, homes or business outfits. More importantly, it makes it possible for viewers dispersed over vast geographical areas can experience a live event simultaneously.

iv. *Personalization of instructional materials*: This mass medium in personalised and individuals could own the small, inexpensive home video recorders, which allows the students to view video materials on an individually presented basis.

v. *Provides alternative for use of leisure time*: The programmes of ITV has provided joy activities for the participant, which provides one of the best alternatives to maximally utilization of their leisure periods. Through this means, substantial numbers of people have been engaged in productive activities, which have inherent potentials for enhancing development.

3.3.2 Limitations of ITV

i) *Erratic Power Supply:* The problem of power which has become a jinx to all organisations has not left the smooth running of ITV equipment and general functioning untouched. The erratic power supply most times leads to outright cancellation or abandonment of educational programmes. And the complexity of the ITV technology allows many possibilities for disruption of the communication flow, particularly, in the absence of high voltage currents.

ii) *Dissemination of Poor Quality Programmes:* The ITV makes it very possible for poorly produced programmes, despite the sophisticated studio surroundings to be aired to the general audience at the same time at diverse locations. Most times these poorly quality programmes lead to misinformation, which can hardly be connected as the ITV programmes are expected to always be very current and focused.

iii) *Inadequate Co-ordination:* There are information gaps in most cases between the broadcasting organisations and the coordinating institutions of learning, which adversely affect the effective use of the instructional programmes. Usher etal (2007) observed that this situation is common in the instructional television of NTA, where the

educational broadcasting of the FRCN lacks proper coordination with NTA, thereby limiting the number of participating schools and access to the broadcast materials.

iv) *Obsolete Broadcast Facilities*: We know that wear and tear sets in to every equipment, particularly those that are used daily with high voltage current. Most of the equipment and facilities used in ITV have all gone moribund and require urgent and require urgent replacement. Hence the woes of the broadcast organisations are how to deal and maintain booster and relay facilities for the single purpose of reaching their audience as their various remote areas.

v) *Effect of Bad Atmosphere:* We normally observe that the weather conditions affect the functioning of the broadcasting facilities. This may disturbs broadcast signals or satellite reception. And when this occurs, the airing of the programmes are affected, which also distort the learning programmes of the audience.

vi) *Limitation of Synchronous Presentation:* This is a major defect with the ITV, this one way presentation of information, ie one-way channel of communication, where the presenter reaches the audience without a feedback.

vii) *Small Surface Images:* Another defect with the ITV is the small surface images that are presented in the TV, particularly in classroom situation. This invariably limits the number of learner population if a positive viewing must be achieved.

viii) *High cost of Hardware and Software Equipment:* The high cost of acquisition of television equipment has frustrated the genure efforts of some broadcast organisation in acquiring this equipment. Also, the overhead cost of production has become so enormous that the organisations find it very hard to produce instructional programmes, particularly when the numbers of the learners are few, which may not justify the huge cost to be invested in the programme.

ix) *Technical Difficulties:* The use of ITV at times presents some technical problems which the instructor in the classroom may have little or no control, and this invariably will result or interfere between the lesson and the learners.

3.3.3 Components of ITV

A) *Recorded Video Tape:* This refers to the method of capturing the learning content on tape or as a digital file for viewing on demand.

These tapes can carry either complete television programme or short segments of specially prepared instruction.

3.3.4 Advantages of Video Tape

- *Accessibility:* This medium is easily owned by almost all households.
- *Cost Effectiveness:* The acquisition of video tape is relatively cheap or inexpensive.
- *Interactively:* It encourages learners to actively interact with video materials instead of being passive viewers.
- *Teaching functions:* The learners and teachers have absolute control of this garget as they can stop the play at will, rewind or play at such other times as desired. The content of this video provide the learners with experience that they may not have experienced practically. It also stimulates discussions among learners.

B) *Satellite E-learning:* This type of media utilizes internet protocol (IP) as the network layer and distribution technology. In ITV application, the satellite e-learning enables a line traditional classroom to be transmitted to a remote site. Here, synchronous oral interactivity is made possible by audio tele-conferencing or students response systems which integrates audio and keypad technology. One major advantage of this medium is that it can transmit easily a large multimedia/web based training modules without being constrained by bandwidth. Satellite e-learning is also known as Business Television (BTV) or Internet Protocol (IP).

C) *Web-Based Instruction (WBI):* In this type of medium, internet-based software and services are delivered over the web, and this gives enablement to synchronous audio or web-conferencing, text-chat, audio, video, document and application sharing. The major advantage in this type of medium is that it allows of synchronous interaction between the instructor and remote students/learners at multiple locations, and it also supports a multi user virtual environment (MUVE).

D) *Video Tele-conferencing (VTC):* This type of medium provides for two-way communication systems which offers audio and video from local and remote sites and them provides for synchronous interaction between the instructor and viewer. It basically allows the student to demonstrate a learning event of their own.

E) Virtual Worlds: This medium provides for graphical 3D simulation of a real or fantasy world environment. They could be pictorial or graphical

representation of the human participants engaged in collaborative activities.

Media Categorised as One-way or Two-way Interaction

	Audio	**Radio**	**Video**	**Television**	**Computers**
One-way	Cassettes Audio vision	Educational radio Interactive radio instruction	Cassettes Discs Clubs	Educational television	Games Computer-assisted learning Databases Bulletin boards Web-based instruction
Two-way	Telephone tutoring Audio conference Audio-graphics	Two-way instructional radio	Interactive video	Video conference Interactive television	Computer conference Computer-mediated communication

4.0 CONCLUSION

Instructional television as concerned in this unit is the totality of broadcasts relayed directly to an organized programme of formal instruction and targeted at specific audience. This form of educational broadcasting makes use of varied delivery systems viz: commercial broadcasting, non-commercial broadcasting, closed-circuit television etc. There are numerous benefits derivable from instructional television, which includes, widening access to education amongst other. This delivery system has its own limitations, which include inadequate co-ordination, poor power supply etc.

5.0 SUMMARY

Instructional Television could mean any planned use of video programmes to meet specific instructional goals, regardless of the source of the programme. Commercial broadcasting, which is the one of the delivery systems, refers to the licensed commercial stations, which produce educational programmes to get to mass audience, through their channels. The television stations established and

are committed in their operation for the benefits of the public are referred to as non-commercial broadcasting etc.

6.0 TUTOR-MARKED ASSIGNEMENT

1) Discuss the various delivery systems of ITV
2) Identify the various benefits of ITV
3) What are the limitations of ITV

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MODULE 3

UNIT 1: HISTORICAL BACKGROUND TO INSTRUCTIONAL RADIO IN NIGERIA/TYPES OF INSTRUCTIONAL RADIO PROGRAMMES

CONTENTS

1.0 INTRODUCTION

Radio consists simply of the transmission through broadcasting of an audio signal to a number of listeners. This can be via the Medium Wave (MW), the Short Wave (SW) or the Frequency Modulated (FM) radio band widths. Today, we have electronic devices for the storage of radio broadcast signals like, the audio cassette playback equipment which makes radio broadcast programme

accessible to all Open University students. So radio can mean two things; radio broadcasting for direct consumption or recordings of radio broadcasts to be stored and used in much the same way as audio cassettes. Broadly speaking, no other means of transmitting knowledge whether by the printed book, the classroom lecture or discussion would seem nearly as effective and affordable as radio. It allows a teacher to address an educational message to audiences of thousands and, at times of millions of people.

Instructional radio programmes have been used to supplement and enrich traditional ways of education. In this first unit, we will trace the historical background of educational broadcasting on radio in Nigeria. We will also look at some types of instructional radio.

2.0 OBJECTIVES

After studying this unit, you should be able to:

1) Narrate the historical background of instructional radio in Nigeria
2) Identify at least three types of instructional radio programmes.

3.0 MAIN CONTENT

3.1 Historical Background to Instructional Radio in Nigeria

An evolutionary analysis of broadcasting in Nigeria would disclose that it was transferred from the United Kingdom, just like Western education itself. Nigeria relied on the model of broadcasting developed in Britain.

In 1922, radio broadcasting started in the United Kingdom by the then British Broadcasting Company that metamorphosed into the present day British Broadcasting Corporation in 1927. Educational Broadcasting started in Britain in 1924, when BBC appointed its first Director of Education. In Nigeria, a special BBC radio service, the BBC Empire Service, relayed news and music to the British expatriate communities starting from 1932. According to Wilkinson (1972)
“By far the largest coverage of Africa is provided by the English Transmissions of the BBC World Service which began as the Empire Service in 1932, became the General Overseas service in 1947 and was renamed the World Service in 1965”.
Between 1932 and 1938, the British expatriates received the broadcasts via the traditional short-wave band (SW) which enabled radio signals to be broadcast over a long distance. It could be surmised that the expatriates had their own radio receivers. Programmes for the indigenous audiences began in 1939, when the first programmes featuring Nigerian performers were produced locally and broadcast under the auspices of the Public Relations Office (later to become the Ministry of Information and Culture). Wired distribution services or rediffusion services were introduced as a means of providing low-cost receivers at the time

before the transistor revolution when a radio receiver was a relatively expensive commodity. Rediffusion services required only that a loudspeaker box be attached to the cable, thus enabling the cost to the audience to be reduced to a minimum. In such cases, the "wired boxes" were rented from the organization responsible for the operation of the service (service providers) at a few shillings a month.

In 1936, the British Colonial government, realizing the potentials of Broadcasting set up a committee under Lord Plymouth to: "Consider and recommend what steps could usefully be taken to accelerate the provision of broadcasting service in the colonies and to coordinate such services with the work of the British Broadcasting Corporation". The Plymouth Committee recommended broadcasting as an instrument to improve communication between government and the governed and to enlighten and educate the masses as well as to entertain them.
The Second World War dampened the enthusiasm exhibited by the colonial government to execute the Plymouth Committee's recommendations at once. In January, 1951, Mr. T.W Chalmers was appointed the first director of the Nigerian Broadcasting Service. The NBS was the first broadcasting service to be established in the British Colonial Territories. According to Chalmers in 1952: "The declared aim of the Nigerian Broadcasting Service was to train Nigerians to run the service with the same standard as those set by BBC, nothing less is worthy of this great country".

In 1955, three regional branches of the NBS for the North, West and East of Nigeria were established in Kaduna, Ibadan and Enugu, respectively. Remember that one of the recommendations of Lord Plymouth Committee was that broadcasting "should provide a means for education". In pursuance of this, Richmond Postgate, a former head of BBC Schools broadcast was invited to Nigeria in 1955, "…to advise on the establishment of a comprehensive system of school broadcasting in English and the main vernacular languages at primary and secondary levels." Mr. Postgate recommended that Nigeria should have a fully-fledged schools broadcasting unit. In 1957, the recommendation was implemented and the ministries of education in the then Northern and Western Regions started providing educational programmes. The programmes were transmitted in their respective areas of Kaduna and Ibadan. Thus, 1957 in effect marked the beginning of educational broadcasting services in Nigeria. By 1959, discernible programmes that were transmitted by both stations were English, Civics, History, Geography and Teaching Methodology.

SELF ASSESSMENT EXERCISE 1

1. Briefly trace the historical background leading to the establishment of educational broadcasting services in Nigeria in 1957.
2. Identify the three types of transmission frequenting available for broadcast.

3.2 Types of Instructional Radio Programmes

There are various types of instructional radio broadcasting. These are direct classroom teaching, supplementary/enrichment classroom teaching and formal Adult education.

3.2.1 Direct Classroom Teaching

Just as instructional television programmes are used for direct classroom teaching, so also are instructional radio programmes used for direct classroom teaching. However, the tremendous growth of television may have led some people to believe that radio is of minor importance as an educational tool. Nothing can be further from the truth. The truth is that radio is more easily available and affordable than the television, to millions of people around the globe. Most vehicles nowadays have radio sets which provide information and entertainment. Radio sets are quite handy and can be found in very remote rural areas where electricity is unavailable to the populace. Can you watch an instructional television programme while you are driving? Of course not. You will agree with me that even now, there are more radio sets in homes than television sets. Think of other locations where you can take your transistor radio sets to. When you consider this, you will fathom how radio can easily be used for massive education, through direct classroom teaching. Radio message has enabled nomadic people to receive education while traveling from one place to the other.

The use of radio for direct teaching has led to substantial educational improvements in the countries that used it. Some examples of direct teaching by radio are: (1) Radio primaria in Mexico and (2) Radio Mathematics in Nicaragua. Direct classroom teaching by radio can be used to improve the quality of instruction. Indeed, well made radio programmes by qualified and trained teachers, based on already existing centralized national curriculum, can be transmitted to conventional schools. Using the skills of a specialist teacher through radio, all students in the country can benefit. Low educational base can be corrected by direct teaching through radio. What I mean by low educational base includes low enrolments in the formal school system; high drop out by those

who enroll; poorly trained teachers and lack of books and other basic educational resources; a rapidly increasing population and an uneven distribution of educational resources. Through direct teaching by radio, educational planners can remove the obstacles to education mentioned above. To make direct teaching by radio effective, teachers' hand books and students' workbooks must accompany the programmes for follow up activities. In order to maximize the use of radio for direct teaching, schools can use tape recorders to record school radio broadcast. Schools should be encouraged to acquire audio recording equipment. Anybody can record through the combined radio-cassette machines. To enhance direct teaching at the Open University, recorded audio cassettes can be mailed to all students in their subject areas. Audio cassettes can easily be integrated with the texts in the Open University system. They can be listened to everywhere even while you are driving!

SELF ASSESSMENT EXERCISE 2

1. Mention some problems in education that direct teaching through radio can overcome.
2. What category of learners can benefit from radio instructions?

3.2.2 Supplementary-Enrichment Classroom Teaching

Enrichment means supplementing the work of the teachers in the classroom. The objective is to enrich the content, the skills or attitudes that the teachers are already teaching the students. Enrichment can be done by increasing motivation to learn, by making the topic more interesting or relevant and by providing a wider or more realistic content. For instance, in some developed countries where the curriculum is not rigidly centralized, it is very difficult for educational broadcasters to be sure that their programmes will fit in with the teaching plans of individual classes. It is for this reason that radio providers deliberately avoid teaching 'directly' or didactically as we discussed earlier on. An example is when a teacher is teaching the pronunciation of phonemes of English Language in class, a native speaker, whose voice has been recorded on tape can enrich the lesson. The native speaker gives the correct pronunciations of the phonemes to be learnt. Even, in developing countries like Nigeria, that have nationally determined curriculum, radio is still most frequently used as a support to the standard curriculum. The radio pregrammes at the defunct National Educational Technology Centre, Kaduna were designed to supplement and reinforce the existing curriculum. The curriculum was designed without any consideration of how radio programmes might be integrated with the curriculum. It is therefore left for radio producers to go through the curriculum or at times the school's syllabus and design radio programmes around it.

Ideally, a broadcasting organization should have practising teachers, who have regular contacts with other teachers in the field in order to have a pretty good idea of the needs of schools before designing their radio programmes. Programmes should be tailored to the needs of the students and teachers in schools instead of just designing them with a vague hope that they would somehow fit into the children's learning activity. Enrichment programmes generally tend to be loosely structured, sometimes with a number of separate short items but generally linked together. They tend to make use of the characteristics of general broadcasting that motivate learners and hold their attention.

SELF ASSESSMENT EXERCISE 3

Describe how you can design an enrichment programme around a centralized curriculum.

3.2.3 Formal Adult Education

Through instructional radio, adult learners are provided with a learning resource which would not be easily accessible to them in other ways. Instructional radio programmes provide learners with primary resource materials. Radio provides learners with access to knowledge and information in a more direct and concrete form. In formal adult education like the Open University system, audio materials could be closely integrated by the course designers, with other teaching materials. Ideally, when courses are designed, audio materials are taken into account before the teaching programme for the session is finalized. Students should have access to the audio cassettes before teaching begins. All I am saying here is that audio programmes could be closely integrated with the curriculum so that television programmes, radio programmes, textbooks, direct teaching by the teacher and group and socializing activities are all integrated. A simple example will be sufficient to show you how radio or audio programmes can be used for formal Adult Education. When the government of Kenya wished to expand primary education to enable children of the target age receives full time education, large numbers of teachers without proper professional qualifications were employed. Consequently, the Ministry of Education set up a correspondence course unit in the University of Nairobi to provide courses through a combination of correspondence teaching, radio broadcasts and occasional residential seminars. Tremendous success was recorded. This will be discussed fully in Unit 2, under case studies.

SELF ASSESSMENT EXERCISE 4

State how radio or audio programmes can be best utilized for formal adult education.

4.0 CONCLUSION

In this unit, we have traced the historical background of educational radio broadcasting in Nigeria. We also highlighted the three types of instructional radio programmes.

5.0 SUMMARY

The unit traced the history of radio broadcasting and how educational or instructional radio broadcasting in the former Western, Eastern, and Northern Nigeria started. The unit also discussed how audio programmes can be used for (a) direct teaching, (b) enrichment or supplementary teaching and finally, for (c) formal adult education. In the next unit, we are going to discuss case studies on the effectiveness of Instructional Radio.

6.0 TUTOR-MARKED ASSIGNMENT

1. Describe briefly the historical background to instructional radio in Nigeria. What major impact did Radio have on the three regional governments of Nigeria between 1920 and 1960.

2. Describe how instructional radio can be used for supplementary or enrichment teaching.

3. Describe how audio cassettes can be used in formal adult education.

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UNIT 2: BASIC CONCEPTS IN INSTRUCTIONAL RADIO

CONTENTS

1.0 INTRODUCTION

In the last unit, we learnt about how instructional radio can be used in different ways to solve some educational and social problems by looking at some case studies. In this unit, we are going to study some basic concepts of instructional radio. Instructional radio is subsumed under audio media. We shall attempt to

distinguish between hearing and listening and equally identify some areas of breakdown in audio communication. We will also discuss how we can improve the listening skills. Finally, we shall explore the advantages and limitations of audio media.

2.0 **OBJECTIVE**S

After studying this unit, you should be able to:

1) distinguish between 'hearing' and 'listening'
2) identify four areas of breakdown in audio communication
3) describe four techniques you can use in improving listening skills
4) discuss five advantages and five limitations of instructional radio.

3.0 MAIN CONTENT

3.1 Hearing and Listening

Which of the learning activities consume the major portion of students' classroom time? Is it reading instructional materials, answering questions or listening to the instructor or lecturer? If you say listening; you are probably correct. Actually, typical elementary and secondary students spend about 50 percent of their classroom time listening (or at least 'hearing'). In the university about 90 percent of student's time in class is spent in listening to lectures and tutorial discussions. From this, we can see the importance of audio media in education.

By audio media, I mean the various means of recording and transmitting the human voice and other sounds for instructional purposes. Hearing and listening, though interrelated, are not the same thing. Hearing is a physiological process while listening is a psychological process. Physiologically, 'hearing' is a process in which sound waves entering the outer ear are transmitted to the ear drum, converted into mechanical vibrations in the middle ear and then changed into nerve impulses which travels to the brain. The psychological process of listening begins with someone's awareness of and attention to sounds or speech patterns, proceeds through identification and recognition of specific auditory signals and ends in comprehension. Attention and concentration are important elements of listening. Attention may waver if what is listened to is either too difficult or too easy. If the environment is not conducive etc, you may be hearing and not listening.

SELF ASSESSMENT EXERCISE 1

Define audio media. Distinguish between 'hearing' and 'listening'.

3.2 Areas of Breakdown in Communication

The hearing/listening process is also a communication/hearing process. A message is encoded by a sender and decoded by a receiver. The quality of the encoded message is affected by the ability of the sender to express the message clearly and logically. The quality of the message is affected by the ability of the receiver to comprehend the message. In 2.1 we distinguished between hearing and listening. Don't forget the encoding and the decoding of the message. The four steps in communication for our purpose will be like this:

ENCODING → HEARING → LISTENING → DECODING

There can be communication breakdown at any point in the process of encoding, hearing listening and decoding. Let us take them one by one.

3.2.2 Encoding

Proper encoding of the message depends upon the sender's skill in organizing and presenting the message. For example, the vocabulary level used by the encoder must be within the vocabulary level of the receiver. Also, the message itself must be presented in such a way that it is within the receiver's experiential range. In fact, the encoder needs to carry out audience research or audience analysis. In writing an instructional radio programme, the encoder must get the facts about the audience. The audience for a programme is the specific or target group the programme design is set to achieve. For instance, if you are writing for students, you will need to know their class, their previous knowledge, how much education they have and what kind of information they need. You need to ask yourself some questions like (1) what are the things they wish to know? (2) what do I wish to say to them? Proper audience analysis can help you in encoding the message that your audience can hear and listen to and decode understandingly.

Audience Analysis is a research measurement designed to know the audience attributes, values and needs. This is necessary to understand the needs of the audience.

3.2.3 Hearing

This is the second stage. The message can break down here due to physical problems like impaired hearing mechanism. It can also break down due to auditory fatigue. In the classroom, extraneous noise can cause auditory fatigue and make communication difficult. In essence, if instructional radio is to be used to its best advantage, efforts should be harnessed at making the environment

less noisy. A monotonous tone or a droning voice can cause a breakdown in communication. When the voice is boring, the hearer can "tune out". So, we look for presenters with pleasant voices when actually recording our instructional radio programme so that our audience will not "tune out".

3.2.4 Listening

Communication can break down at the point of listening due to the receiver's lack of listening skill. If the vocabulary level is higher than that of the receiver communication will not take place. Also, if the message is beyond the experience of the receiver, communication will break sown. Communication at the stage of listening can break down if the receiver has hearing difficulties. It can also break down by listener's lack of attentiveness or lack of skill in auditory analysis. Finally, communication can break down when the listener lack the expertise to internalize and thus comprehend the message. Listening to a good instructional radio programme can be ruined if the listening environment is poor. You need to listen to instructional radio in an environment free of extraneous noises. See to it that the equipment being used is properly tuned – proper balance level and proper volume level are necessary.

3.2.5 Decoding Level

Communication can break down due to receiver's lack of skills in comprehending the idea being expressed by the encoder. All the impediments mentioned in 2.2.3 are applicable to the decoding level. The impediments act as barriers between the encoding step and the decoding step to reduce understanding of the meaning intended by the encoder to a small fraction.

SELF ASSESSMENT EXERCISE 2

1. Describe the four stages in the hearing and listening process.
2. Why do you need audience analysis?

3.3 Techniques for Improving Listening Skills

There are some techniques which can be used in improving listening skills. Listening is a skill and like all skills, it can be improved with practice. I will mention about six here.

3.3.1 Directed Listening

Before presenting an instructional radio program, the students can be given objectives or questions to guide their listening. You can start with short passages and one or two objectives which can be gradually increased with time.

3.3.2 Following Direction

Give the students directions on instructional radio and ask them to follow the instructions. Here, you can have, the worksheets prepared. Using the prepared worksheet, the student would be asked to put an X on …. Or Circle Y or N.

3.3.3 Listening for Main Ideas, Important Details and Inferences

On an instructional radio programme, you can read aloud a short passage or story and ask students to give it a title. You can also ask them by way of summary to write down the main idea at the end of your presentation. You can also ask them to write the morals of the story.

3.3.4 Finding Sequence

Here you can read aloud a story containing a number of events, then ask students to restate them in their own words and in the sequence of occurrence. Alternatively, you can record a short story scrambling the order of events and requesting students to listen attentively and restate them in correct order in their workbooks.

3.3.5 Using Context in Listening

You can record sentences with missing words and ask the students to supply appropriate words. This is to sustain the concentration of students while listening to instructional radio. Students will listen attentively and try to figure out the missing words and fill in the gaps. You can also read open ended incomplete sentences and ask students to finish them in ways that make sense.

3.3.6 Listening Critically

You can record a political speech and ask students to listen critically. Questions on the speech can then be asked e.g. Who is the speaker? What is the main thrust of the speech? When was the speech made? Etc

SELF ASSESSMENT EXERCISE 3

Describe four techniques an instructional radio producer can use to improve the listening skills of the target audience.

3.4 Advantages and Limitations of Audio Media

3.4.1 Advantages of Audio Media

i) They are inexpensive forms of instruction. Once the equipment and tapes have been purchased, there is no additional cost. Audio tapes can be erased after use and a new message recorded. New audio tapes are not as expensive as Video tapes or VCD.

ii) Audio tapes are readily available and very simple to use. You can record your own tapes and tapes can easily be repaired when damaged unlike audio discs.

iii) Audio tapes can easily be adapted for individual use or for group instruction.

iv) Students who cannot read can learn from instructional radio programmes. Even blind students can learn from instructional radio.

v) Audio cassette tape recorders are very portable and can even be used “in the field” with battery power or solar power.

vi) Cassette recorders are ideal for home study since many students have their personal ones.

vii) For young children, instructional radio can provide early language experiences.

viii) Instructional radio programmes can present more stimulating verbal messages more dramatically than print.

3.4.2 Limitations of Instructional Radio

i) Without someone speaking to the students face to face, some students may not pay adequate attention to the presentation. They may ‘hear’ but do not ‘listen’ and comprehend.

ii) Development of instructional radio programmes by the instructor may be time consuming as we will see in subsequent units.

iii) Instructional radio tends to fix the sequence of a presentation – not much flexibility.

iv) The initial expense of playback and recording equipment can pose a problem.

SELF ASSESSMENT EXERCISE

Identify four advantages and four limitations of instructional radio programmes.

4.0 CONCLUSION

In this unit, we have discussed some basic characteristics of instructional radio. We now know the difference between hearing and listening. We also discussed the barriers to effective communication. We learnt about how to improve the listening skills and finally, we discussed the advantages and limitations of instructional radio.

4.0 SUMMARY

In instructional radio production, it is essential for us to be aware of some basic facts like how to improve the listening skills and the barriers to our communication. Audience research is also very essential in our programme production because it enables us to know what the audience will like and so tailor our programmes along that line. We are now aware that though instructional radio programmes are versatile, they have limitations which must be guided against. Instructional radio has applications in all fields of learning-Mathematics, Languages, Social Studies and Sciences just to mention a few. You only need to be imaginative and creative as a producer to use it in all places of instruction - from introduction of a topic to its evaluation. Infact, the uses of audio media are limited only by the imagination of the programme producer. It has been identified that radio transmission is by far the cheapest means to reach learners within the shortest possible time and space.

6.0 TUTOR-MARKED ASSIGNMENT

1. Distinguish between hearing and listening.
2. Mention the barriers to communication and what you can do to ameliorate them.
3. List four advantages and four limitations of instructional radio programme.

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UNIT 3: APPLICATIONS OF INSTRUCTIONAL RADIO FACILITIES IN THE STUDIO

CONTENTS

1.0 INTRODUCTION

In the last unit, we considered some basic concepts in instructional radio. We distinguished between 'hearing' which is a physiological phenomenon and 'listening' which is a psychological phenomenon. We discussed how to improve the listening skill and we finally highlighted some advantages and limitations of instructional radio. In this unit, we will look at the various areas of discipline where instructional radio has applications. We will also look at the facilities we are expected to find in the sound studios.

2.0 OBJECTIVES

After studying this unit, you should be able to:

1) Explore one possible use of instructional radio in your area of discipline

2) Identify some facilities in the performance studio
3) Identify some facilities in the production control room.

3.0 MAIN CONTENT

3.1 Applications of Instructional Radio

Instructional radio lends itself generously to creative and imaginative producers. It can be used in all phases of instruction from the introduction of a topic to its evaluation. Instructional radio can be used in self-paced learning. When instructional radio programme is well packaged and dubbed into cassettes, you can direct the user to pause the tape and do some exercises. Naturally, a music bridge is introduced during the time of stoppage. Audio tapes can be recorded to enable a slow student to go back and repeat a segment as many times as possible until mastery is achieved. The brilliant student can move the cassette forward to skip segments that are easy for him. Pre-recorded instructional radio materials are available in almost all subjects. Let us look at some subject areas where it can be applied.

i) In Languages, instructional radio can be used in teaching pronunciation; tone etc. Spelling of words can be recorded and taught to the students. Essay writing, grammar of the language, story telling etc can be taught using instructional radio. In fact, speaking, reading, listening and even writing skills can be taught using instructional radio.

ii) In Shorthand Practice: Instructional radio or audio tape is used in business schools. The students practice taking dictation by listening to audio tapes prepared by the instructor. Variety of voices can be introduced on the tapes to allow the students to practice dealing with different voices, different accents and a variety of dictation speeds. Students can begin with easy tapes and then move on to difficult ones.

iii) In Music Classes: Instructional radio can be used to introduce new lessons in the music class. The sounds of various musical instruments can be presented individually or in combinations.

iv) In Social Studies/History Class: Instructional radio can bring the voice of persons who have made history into the classroom. You can bring in the voices of presidents who had presided over the affairs of some countries in the past. Voices of past leaders like Dr. Azikiwe, Chief Awolowo, Sir Ahmadu Bello, President Bush, President Clinton etc. can be recorded and analysed in a Social Studies class. The sounds of current events can also be presented for analysis.

v) In Mass Communication: Instructional radio is useful for simulating radio broadcasting. Students can be given instructions on dramatization, script-writing, programme presentation etc. Students in Mass Communication can record their own efforts and criticize themselves towards improvement.
vi) In Mathematics: Instructional radio can be used for teaching multiplication tables, fractions etc.

So, you see, instructional radio has applications in all areas of education. However, care is taken in the use of radio for science education. It has been designed for all categories of learning.

SELF ASSESSMENT EXERCISE 1

Describe five areas where instructional radio can be effectively used.

3.2 Some Facilities in the Sound Studio

There are two main audio facilities in use. The first one is the performance studio where talents perform before a microphone, and the production control room where the various pieces of equipment used for recording audio were housed. Looking at it from this perspective, audio production is a relatively more straight-forward process than video production. In fact, advances in technology have made it possible to produce high quality computer assisted sound just anywhere using the audio work station. Let us now look at the performance studio and the control room.

3.3 Performance Studios

As the name indicates, a performance studio is where the talent performs. Performance studios contain microphones, lights, loud speakers, headphone, acoustic, electrical musical instruments, furniture. A glass window often separates the performance studio from the control room. The glass window enables the performers and operators of the console to communicate by various cues, by hand or through a talk-back system. A cue is a signal to show the beginning or end of a programme. Cues are also used as a general sign language in the production of audio/video materials. When you point your finger at a speaker to tell him to begin his presentation, you are using the ‘hand cue’. If a light goes on in the studio to show the start of a programme, that is called a ‘light cue’. The ‘talkback’ system permits communication from a control room microphone to a loudspeaker or headphones in the performance studio. Let us dwell on one or two pieces of equipment in the performance studio that affect the quality of the audio produced. Let us discuss Acoustics**:** this is the science of sounds. When we discuss acoustics**,** we need to concern ourselves with how to

eliminate or reduce the echoes in the performance studio. Echo, as we know, is caused by the sound waves bouncing back from the solid reflecting surface in the room. These distracting sound reverberations are picked up by the sensitive microphones and can do much damage to our recordings. Poor acoustics interfere with the fidelity of our recordings. What do we do to reduce the distracting sound reverberations interfering with the fidelity of our recordings? To dampen the sound in a room properly so that it becomes a performance studio is an extremely expensive undertaking. The performance floor must be covered by rugs and the studio walls with acoustic tiles. Many studio recording problems can be traced to the microphone's inability to ignore sounds. The microphone picks up every sound within its range and transmits all faithfully to the recording device. In the performance studio, microphone placement becomes an artful compromise between maximum pick up of desired sound and minimal pick up of extraneous sounds. In effect, the studio walls should be well padded so that outside noise will not enter the studio.

3.3.1 Microphones

The microphone takes the sound of a voice or music and turns it into electrical vibrations which may be broadcast or recorded in cassettes. A loud speaker turns the electrical vibrations back into sound your ears can hear. A wide variety of microphones are available. We can describe them in two ways viz. the way they are used and the way they 'hear' the sound.

A. The way they are used

1) *Desk Microphone:* This is placed on a small stand so it can be used on a table.
2) *Boom microphone:* This is put on a large stand (boom) so that it can hang down between the speakers and the musicians.
3) *Floor microphone:* This is put on a stand that rests on the floor.
4) *Lapel microphone:* This is attached to the clothing when it hangs from a string around the speaker's neck, it can be called a neck microphone.

B. The way they hear sound

1) *Omni-directional:* This microphone can pick up sounds from all sides.
2) *Bi-directional:* This can pick up sounds from the front and the back but not too well from the other sides.
3) Uni-directional: This microphone would hear the voice best from only the front i.e. the live side of the microphone is only in front.

Whatever the type of microphone in the performance studio, the studio engineer should strike what we call the microphone balance by placing the actors at the best distance from the microphones so that the sound we hear is natural and

pleasing. You can only get good balance by trying many different distances for each person and by listening carefully through a loudspeaker. You should avoid placing the microphones close to any hard surface that might act as a sounding board. As a rule of thumbs, your mouth should remain about a foot away from the microphone. Do not speak directly into the microphone, but rather, talk over it. Placing the desk microphone an a cloth or some other sound absorbing material or on a stand will decrease the possibility of noise being transferred to the microphone from the desk or table. Finally, avoid handling sheets of paper near a microphone.

SELF ASSESSMENT EXERCISE 2

Describe the performance studio with particular reference to the acoustics and the microphones.

3.5 The Production Control Rooms

The technology of production is gradually moving away from analog to digital. Digital equipment are compact and fragile, while analog are bulky. However, both are largely in use for broadcast productions. In most developing parts of the world, the analog is still available and this discussion will highlight the commonalities for comprehensible purpose. The audio production control rooms house most of the equipment needed to prepare sound material. The control room can boast of many pieces of equipment according to their purpose. We will dwell on basic equipment in the control room. The radio control rooms are usually designed so that the pieces of equipment are within the arm's reach of the operator. The pieces of equipment include the audio console, the turntable, the compact disc player, the tape recorder, the signal processor, the loudspeaker, the headphone, the patch panel etc. Let us briefly look at some of them.

1. ***Audio Console:*** This is a device that receives all incoming audio signals from microphones, discs players, audio tapes, and other sound sources and amplifies, balances, mixes and routes them for recording or broadcasting.

2. ***The Turntable:*** A sturdy record player specially designed for professional audio facilities. Special effects recorded on plates or discs can be played on it and fed into the audio console for recording.

3. ***The Compact Disc Player:*** A disc player that uses laser beam to read information recorded on a compact disc (CD).

4. ***Tape Recorder:*** An analog or digital device that records and plays information stored in the form of magnetic energy.

5. ***Signal Processors:*** Devices that change the waveform, time or quality of a signal and hence its original sound. Three of the more common signal processors are the equalizer, limiter –compressor and reverberation unit.

6. ***Loudspeaker:*** A device that makes electric signals audible by converting them into sound.

7. ***Headphones:*** "miniature loudspeakers" that fit over the ears to provide private listening and to isolate outside sound.

8. ***Patch Panel:*** an assembly of wired connections linking the inputs and outputs of the audio components in a studio which facilitates the routing and rerouting of signals.

9. ***Microphones:*** A familiar, almost ubiquitous piece of sound equipment that changes sound energy into electric energy.

Performers and speakers speak into it for t he purpose of getting their voices recorded or heard. As an instructional radio students and would-be instructional radio producer, you need to visit a radio studio near you to familiarize yourself with the practical aspects of the performance studio as well as the production control room.

SELF ASSESSMENT EXERCISE 3

Write short notes on the functions of these equipment in the production control rooms.
(1) The turntable (2) the tape recorder (3) the audio consoles
(4) the patch panel and (5) the signal processors.

4.0 CONCLUSION

The unit has shown that studios are very important in the production of instructional radio and you must be conversant with the pieces of equipment and their functions. The unit also touched on the versatility of instructional radio and the advancement in technology from analog to digital equipment productions. The uses of audio media are limited only by the imagination of teachers and students. A major advantage of instructional radio is the ease with which they

can be produced. All that is needed is a blank audio tape, a tape recorder and some level of creativity by the performers and producers.

5.0 SUMMARY

In this unit, we have learnt about how instructional radio has applications in all areas of learning. It lends itself creditably to all aspects of language teaching and learning. It can be used in shorthand practice in business studies etc. we also learnt about the performance studio where talents or performers stay during production and also the production control room where the pieces of equipment for recording and play backs are kept.

6.0 TUTOR-MARKED ASSIGNMENT

1. Describe how instructional radio can be used in your area of discipline.
2. Describe three facilities in the performance studio and eight facilities in the production control room.
3. Describe three types of microphones by the way they are used and three types of microphones by the way they 'hear' the sound.

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UNIT 4: FUNCTIONS OF SOUND/PREPRODUCTIONSTAGE

CONTENTS

1.0 INTRODUCTION

In the previous unit, we learnt how instructional radio has applications in all facets of learning. We also learnt about some basic facilities and their functions in the performance studio and the production control room. In this unit, we shall identify some functions of sound in radio productions. We shall also look at the pre-production stage in instructional radio production.

2.0 OBJECTIVES

After studying this unit, you should be able to:

1) Identify some functions of sound in radio production
2) Describe the stages in the production of instructional radio programmes.

3.0 MAIN CONTENT

3.1 Functions of Sound in Instructional Radio Production

Instructional radio uses four elements in creating a sound design. These are speech, sound effects, music and silence. All instructional radio, from the simplest talk programme to the most advanced radio play, consists of only these four elements. Sound performs the following functions:

(1) Sound is a formidable agent in communicating cognitive, affective and psychomotor information.

(2) The greatest advantage of the pure sound medium lies in its direct appeal to imagination. The 'scenery' is built in the mind of the listeners using the four building bricks of speech, sound effects, music and silence. As you listen to instructional radio, a listener is free to build his own mental picture. You will agree with me that radio is extremely effective in creating a 'theater of the mind' using just sound.

(3) Sound of music has been known to have some therapeutic form spiritual effect on the listeners. Throughout history, kings and them royalty, and even the ordinary plain country people have derived pleasure bordering on some spiritual elevation by listening to the sound of music, in addition to the educative and informational aspect of sound music.

(4) In the visual media sound often carries substantial portion of the overall information.

(5) Sound has an undeniable power to direct our attention to and sharpen our interpretation of an image; to create expectations and to emphasize an idea or an emotion.

SELF ASSESSMENT EXERCISE 1

Describe four functions of sound in audio and video production.

3.2 Speech, Sound Effects, Music and Silence in Sound Production

1. Speech or Spoken Sound

It is important for you to know the various ways in which speech affects meaning. Speech has basically two functions viz: narration and dialogue.

Narration: Is usually descriptive and voiced over. A narrator describes events from outside the action, not as a participant but as are observer. As an

instructional radio script writer, understanding the influences of narration on content results in a better conceived sound design.

Dialogue: Is a conversation between two or more persons. In characterization for production, dialogue can come in handy. A script-writer should be aware of the use of dialogue in bringing to life his character. You may want your character to be viewed as highly educated and thus speak in a formal manner or you are portraying a half-baked, semi-illiterate personality. You need dialogue to do this. Accent, emphasis, influence etc. are part of dialogue.

2. Sound Effects

Sound effects also have specific functions to perform in instructional radio production. The most common functions are creating environment, establishing location, time and depicting identity to mention a few. In creating environment, you can fade in the 'noise' from the stadium to create the environment of sports arena. In establishing location, you can fade in the honking car horns and screeching brakes to tell your audience that you are in a traffic jam. You can fade in the sound of the airport, of planes taking off and landing to tell your audience, that you are at the airport. In order to depict time or identity, you can use the cock crow to signify dawn or morning, while the barking of a dog may depict that a stranger coming to a house, etc.

3. Functions of Music

In instructional radio production, music can be very useful. Before cueing in the announcer, you start with music. Theme music is a piece of music used at the beginning and end of a programme. Usually, the theme music is short. There music helps the listener to identify the programme that is on air. Music bridge is a short piece of well chosen music between two parts of a programme serving as a link or a bridge between them. Music can be used also to establish locale – music can establish whether the locale is Iboland, Hausaland or Yorubaland. In short, you can use music to emphasize action, depict identity, evoke atmosphere, and establish feeling or mood.

4. Silence

Silence is the pauses or 'silences' between words, sounds and musical notes that help to create rhythm, contrast and power. Silence is very effective following sound e.g. an explosion that will destroy the enemy is set to go off. And silence can be used before a sound if somebody screams after silence.

SELF ASSESSMENT EXERCISE 2

Write short notes depicting the functions of (1) speech (2) sound effects and (3) music in instructional radio production.

3.3 The Stages of Production

Instructional radio production has three distinct stages; preproduction, production and post production. In preproduction, approaches to the conceptualization and realization of the programmes are decided on; budgeting and other logistical planning are also decided on. In the actual production, programmes are recorded on tape. If it is a live programme, the programme can be aired directly thus ending the production activity here. In postproduction, recorded material is processed, edited and mixed into its final form. Each stage is very important to the successful outcome of a production. However, we shall critically explore the preproduction stage because of its strategic importance.

3.3.1 The Preproduction Planning Stage

The most critical stage in the production stages is the preproduction stage. During preproduction, creative and business decisions that will affect the two later stages are carefully worked out. In most cases, as preproduction goes, so goes the rest of the production. So, proper planning at this stage is essential for the smooth running of your production. We should devote at least 60% of the production time to this stage. Failure to do will impact negatively on the production and post production stages. Let us look into certain basic considerations that must be taken into account during the preproduction stage in instructional radio production.

i. Curriculum Study: Nigeria has a centralized curriculum so you need to get a copy of the curriculum for the target audience and study it. You need to identify curriculum needs at the subject level. This will of course lead to curriculum development at individual topic level. Don't forget you have the syllabus at your disposal. Whichever one you use, a need for the programme must be established.

ii. Target Audience Research/Analysis: Here, you find out the things you must know about the students you are writing the programmes for. For instance, you will need to know their class, their previous knowledge and the kind of information they need from your programme. You need a notebook to jot down your findings. Do not just commit it to memory. You can equally open a research file. Few programmes are successful without the audience research. You also

need to involve the teachers in school in this initial planning. Ask them how you can enrich their teachings by instructional radio. Again take note of their pieces of advice and keep in your file.

iii. Programme Research: You also need to do the programme research. You can pose these two questions.
1. What are the things the students wish to know?
2. How do I say the right things they wish to know?
There are many things you want to tell your target audience. They must be things that will help the students in some ways. Radio is a very powerful tool, when you use it; you have a great responsibility to tell the truth. If you want to meet the needs and interest of your audience, target audience research and programme research are absolutely necessary. Audience and programme research enable you to exchange ideas with all the stakeholders.

iv. Setting Objectives: You now need to write your objectives for the chosen topic. An objective is a statement not of what the producer wants to put into the programme, but what your learner ought to get out of your instructional programme. The statement of the objectives should be specific and clear. If objectives are clearly and specifically stated, learning and teaching become objective oriented. Knowing your objectives will force you to create a learning environment in which the objectives can be achieved. Indeed, a statement of objectives may be viewed as a type of contract between the instructional radio producer and the target audience.

v. Establish content or instructional points: The instructional message is the biggest part of the writing. It should really be an instructional radio programme. Instructional radio programme should make simple points and be fairly short. The few points you have in mind must be exposed carefully and in a straight forward style. If there are two many ideas, the listener's mind will fail to grasp the theme. Actually, twenty minutes duration is the highest. A twenty-minutes programme consumes between three thousand, six hundred words to four thousand words. How do we arrive at this? For instructional radio, we calculate averagely about three words per second, that is 180 words per minute i.e. 3x60 seconds. Then 180 words per minute multiply by twenty minutes will give you 3600 words. Note that not more than three or four minutes should be devoted to any idea of importance. This means a twenty minutes programme should not contain more than five ideas. As there must be a match between learners and objectives, there must also be a match between learner and content. Ensure the appropriateness of the vocabulary level etc. Script writing may commence here.

vi. Budget/Cost: In instructional radio production, you need to know whether there is sufficient money available in your budget to meet the cost of production.

You should pay early attention to cost implications. An estimate should be done during preproduction stage. In fact, you will need to allocate funds to the following; audience research, script writing, talents/ presenters/performers, production in the studio, editing, dubbing or duplicating, food and drinks or snacks, transportation, buying of tapes, use of Electronic News Gathering Devices (ENGD) and other contingences.

vii. Equipment/Facilities: In instructional radio production, you need to ask yourself whether you have available the necessary equipment to produce or not. Depending on your script, you may invite a sound engineer to be involved; from selecting the microphone, to recording of outside inserts, to recording the speech in the studio and to recording of music and other sound effects. The sound engineer may be involved in so many things. He can be the producer, recorder, editor etc. All you need to do is to visit the studio and know the type of equipment available and how they can be deployed to realize your instructional objectives.
Instructional productions are made either in a studio or on another location, away from the studio. Although studio recording may be logistically less complex, recording at either site requires preproduction planning. You need to test the main and back-up equipment so that you are not disappointed during
the actual production.

SELF ASSESSMENT EXERCISE 3

Describe seven vital steps you need to consider during the preproduction stage in instructional radio production.

4.0 CONCLUSION

We have learnt in this unit, that an instructional radio producer must be conversant with the four elements of sound in order to design a balanced radio programme. The four elements are speech, sound effects, music and silence. We also learnt the functions of these elements. We discussed of the critical importance of the various stages in preproduction, and concluded that the instructional radio producer must be aware of all these stages in order not to produce programmes that have no bearing on the target audience.

5.0 SUMMARY

In this unit, we have been introduced to the importance of sound in instructional radio production. Every instructional radio programme must consist of spoken sounds, either through a narrator voicing over the content of the programme or through the use of dialogue. Sound effects are used in creating environment, establishing locale and depicting identity. Music too is used expansively in the

production of instructional radio. Finally, we discussed the use of silence which is the pause or silence between words, sounds and musical notes. Silence helps in creating rhythm, contrast and power. Another topic given serious consideration was the preproduction planning stage which involves curriculum study, target audience analysis, programme research, setting objectives, establishing content, budgeting and equipment/facilities. An instructional radio producer must consider all these before embarking on the project.

6.0 TUTOR-MARKED ASSIGNMENT

1. Describe the seven vital steps you need to consider in the preproduction planning stage in instructional radio production.
2. Justify the use of speech, sound effects and music in instructional radio production.

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UNIT 5: THE INSTRUCTIONAL RADIO SCRIPT

CONTENTS

1.0 INTRODUCTION

In the last unit, we learnt theoretically about the four elements of sound that an instructional radio producer must be conversant with. These elements are spoken sound, sound effects, music and silence. We also learnt about that important stage in production known as the preproduction stage. In this unit, we shall see how we can practically write an instructional radio script and cap the unit by studying a written script.

2.0 OBJECTIVES

After studying this unit, you should be able to:

1) Describe the stages in the script-writing process
2) Write your own script for an instructional radio programme.

3.0 MAIN CONTENT

3.1 Write the Scripts Yourself or Hire Professional Scriptwriters

Instructional radio production relies heavily on scripts. Scriptwriting is the development of situation, a story, dialogues, characters etc. An instructional radio producer should work hand in hand with a subject specialist to marshal out a good script. If possible, practising teachers should be invited to participate in scriptwriting. Remember that the elements of sound design we discussed in the previous unit will come into play: speech, music, sound effects and silence must be part of the scripting. At times you can hire a professional scriptwriter.

3.2 Scripts are written to be heard

Remember that a script is written to be heard. All words, whether narration or dialogue, music and sound effects are written for the ear. As a general rule, always read your script aloud in order to listen to how it sounds.

3.3 Timing

Timing is very important while writing your script. How do you time your script? You can time your script by the rule of the thumb. Averagely we read aloud three words per second. In one minute, it should be 3x60 seconds which is 180 words per minute, so, a twenty minute instructional radio programme should be 180 x 20 which is 3,600 words. You can also read your scripts aloud and use a stop-watch for the timing. Remember you must time your music and other inserts as well.

3.4 Write for your Audience

In the previous unit, we discussed target audience analysis. In scriptwriting keep the target audience in mind and write for them. Think of their level and use appropriate vocabulary that will suit their level of communication/learning/comprehension.

SELF ASSESSMENT EXERCISE 1

Write four useful hints that will help you in your script writing for instructional radio.

3.5 Script Writing for Instructional Radio: Three Stages for Writing

3.5.1 Stage One: Developing the Outlines

1. **State Objectives:** In developing the outlines you will need to state the objectives you will like to achieve in the prgoramme.

2. **Attention Catcher**: The first sentence should be a very short sentence that will make the listener want to hear what else you are going to say. It may be in form of an exciting question or a challenging statement.

3. **Direction Pointer**: You should have one or two sentences that would help the listener to begin to think about the subject matter you have in mind.

4. **Thee Instructional Message**: This is the biggest part of the writing. It is like the main body of letter writing. If it is going to be effective; it should be instructional and highly interactive.

5. **The Quick Closing:** Think of what you will use in closing the programme. You need to tell the target audience what they will look forward to in the next programme.

3.5.2 Stage Two: Writing the First Draft

From the outlines you can now write your first draft. Let me reiterate that a subject specialist should be included for accuracy of content. The subject specialists should vet the final script you are going to use in recording. Involving a subject specialist is to guarantee quality assurance in your production. Read over the first draft quickly and change (edit) your scripts where necessary. Ask yourself the following questions:

1. Am I using the words my target audience will not understand? If so change them to easier words.

2. Are my sentences too long and difficult? Sentences should be very short and simple in instructional radio.

3. Is my writing interesting? Are there better colourful words and phrases I could have used? Try to put them in if they really fit.

4. Am I too serious? Will my script not be better if it makes the listener smile

sometimes? A smile or a laugh will turn your listener into a friend.

5. Is it exactly 20 minutes long? Again calculate 3 words per second x 20 minutes = 3,600 words.

3.5.3 Stage Three: Rewriting the Script

From the experience of veteran producers, four to five drafts are normally required before the final one is ready for recording. A famous writer once said, “Great authors do not write, they rewrite”. If you will be honest with yourself, the first draft may end up in the waste paper basket! It can never be good enough for production so, you need to rewrite your script. All of us find it hard to judge our work because we like to feel that what we have done is good. In production, we must learn to judge ourselves more harshly than our worst enemy if we are to become good writers. Your first draft will be covered with corrections and new ideas will be popping up. However, as you work through the corrections, the new script is forming in your mind. After all said and done, you now have an air copy, neatly typed and when you are satisfied it is the best script you can knock together, take the finished script to whoever will vet it before you head for the recording studio. Do not feel bad if your supervisor asks you to write the programme again and to make some changes. Be grateful to him if he points out your mistakes. We can only improve on our work if we can find out our mistakes and correct them.

SELF ASSESSMENT EXERCISE 2

1. Describe three vital stages in script writing for instructional radio.
2. What makes a script air worthy?

3.6 A Detailed Instructional Radio Programme

TITLE: EFFECTIVE APPROACH TO THE TEACHING AND LEARNING OF ENGLISH LANGUAGE

TOPIC: NOUNS

1. THEME MUSIC UP 10, THEN UNDER 20

2. Announcer: Hello teachers, you are welcome to your favourite programme that focuses on Effective Approach to the Teaching and Learning of English Language. After listening to the programme, you should be able to (1) Define a noun. (2) Identify nouns at home, school, in the market and at any place. (3)

Distinguish between concrete nouns and abstract nouns. I have with me a teacher and some pupils who will help us in today's lesson.

3. THEME MUSIC UP AND OUT
4. TEACHER: A noun is the name of anything. Now listen to these sounds and tell me the names of the producers of the sounds.
5. FX: goat bleating
6. ADE: A goat
7. FX: cock crowing
8. JUMAI: A cock
9. FX: Dog barking
10. EMEKA: A dog.
11. FX. Cow's sound
12. ZAINAB. A cow
13. TEACHER: Excellent. You identified the sounds of a goat, a cock, a dog and a cow. All the sounds you identified belong to things you can name. They are all nouns. The nouns once again are goat, cock, dog and cow. Now, write the definition of a noun in your workbook and quickly give four examples of names of animals.
14. THEME MUSIC UP 20 SECONDS AND OUT
15. TEACHER: Let us now take a look round the classroom and name all the things in the classroom. Each of you must name at least three things in the classroom. Yes
16 ADE: Chalkboard, desks, seats
17. TEACHER: What are chalkboard, desks and seats?
18. GOGO: They are all names of things in the classroom. They are all nouns.
19. TEACHER: Thank you Gogo, let's have some more examples. Yes **Zainab?**
20. ZAINAB: Tables, chair and fan
21. TEACHER: Very good Zainab, Table, chair and fan are all nouns. Next **Gogo?**
22. GOGO: Door, window, wall
23. TEACHER: Very good, door, window and wall are all nouns. They are names of objects in the classroom. Nest ADE
24. ADE: Books, Pen and Pencils
25. TEACHER: Excellent, book, pens and pencils are all names of things in our classroom. They are all nouns. Now, class, write the names of ten objects in the class in your workbook.
26 THEME MUSIC UP AND DOWN
27. NARRATOR: As you can hear. The world is full of nouns. Just name anything and it is a noun. The teacher is still around to tell us about concrete and abstract nouns. Here we go.

28. TEACHER: Nouns are divided into two broad groups. These are concrete and abstract. Who among you can tell me what we mean by concrete nouns? Yes Ade?
29. ADE: concrete nouns refer to objects that are real, that can be seen and that can be touched.
30. TEACHER: Very good. Now let us have some examples of concrete nouns. Yes Zainab?
31. ZAINAB: Goats, chickens, dogs, pigs and cats.
32. TEACHER: Very good Zainab. Goats, chickens, dogs, pigs and cats are all concrete nouns – they can be seen and they can be touched. Next Audu?
33. AUDU: Doors, windows, tables, desks and wall.
34. TEACHER: Very good. Next Jumai?
35. JUMAI: Pen, pencil, chalk, eraser and books
36. TEACHER: Excellent. In fact, all the nouns we have mentioned so far are concrete nouns. Now, write ten examples of concrete nouns in your exercise books.
37. THEME MUSIC UP AND OUT
38. TEACHER: Now, we have known that concrete nouns are the names of objects that are real, that can be seen and that can be touched. Let somebody tell us what abstract nouns are. Yes Emeka?
39. EMEKA: Abstract nouns are nouns associated with feelings. Abstract nouns cannot be seen and cannot be touched.
40 TEACHER: Very good. Unlike concrete nouns, abstract nouns deal with feelings. They cannot be seen and they can not be touched. Come on, give me some examples. Yes Zainab?
41. ZAINAB: Honesty
42. TEACHER: Good. Honesty is an abstract noun. We cannot touch honesty and we cannot see it. We can however tell a story of honesty. Let me tell you a short story on honesty.
43. TEACHER: One day, a poor taxi driver picked a passenger. When the passenger reached his destination, he alighted without picking his suit case containing one million naira. When the taxi driver saw the suitcase, he opened it and discovered the money. With such amount of money, he knew he could buy more taxi cabs and make more money. However, instead of converting the money to his own, he went straight to the Federal Radio Corporation of Nigeria Office, Lagos and handed over the money. Using the business card found inside the suitcase, the owner was contacted by the FRCN who was able to collect his money back. The passenger was very happy that we still have drivers like that in Nigeria. So what do you gain from the story?.
44. EMEKA: Honesty, an adage says, is the best policy.
45. TEACHER: Let us have more examples of abstract nouns.
46. GOGO: Happiness and Love.

47. TEACHER: Yes, happiness and love are also good examples of abstract nouns because we cannot see 'happiness' and 'love' neither can we touch happiness and love. But we can tell stories to show the feelings associated with happiness and love. Now, give three examples of abstract nouns and write a short, story on one of the three examples given. Submit you work to your teachers for assessment.

48. THEME MUSIC UP AND UNDER

49. ANNOUNCER: Well teachers, in today's lesson, we have learnt that a noun is the name of anything. Also we now know the difference between concrete and abstract nouns. In our next lesson, we will be discussing how to improve our reading skills. Till then it's goodbye.

3.7 Analysis of the Script

You will notice that the script is divided into 40 frames or segments. Let us look at some frames in order to explain the making of a script.

a) Frame 1 is "THEME MUSIC UP 10, THEN UNDER 20"
This means that we are starting the programme with music for 10 seconds. The **theme music** will then be turned down to become like background music for 20 seconds to take the announcer in the second frame. Other producers call the music **signature tune** or sig. tune for short. They are all the same.

b) Frame 2 is the voice or spoken words of the announcer. After the announcer, we go to frame 3.

c) Frame 3: THEME MUSIC UP AND OUT. This means that the **theme music** is tuned up immediately after the announcer acting as **Music Bridge** to allow the teacher to come in. This leads to frame 4.

d) Frame 4: Teacher's voice – again spoken words.

e) Frame 5: is FX goat bleating: This means fade in (FX) the bleating of the goat. Here, you introduce sound effect already recorded by ENG or you can use the one from a cassette or from a record plate. So, you see, in the first nine frames of our scriptwriting, we have all the elements of sound design as discussed in unit 5. The elements again are spoken sound (the announcer and the teacher); sound effects (goat bleating, cock crowing and dog barking); Music (the opening theme music and Music Bridge after frame 2); silence, the fourth element, is of course integrated. After a careful study of this instructional radio script, you should be prepared to write your own.

SELF ASSESSMENT EXERCISE 3

Using the derailed instructional radio script format here as a template, write a ten minute programme script in your chosen subject area and on a topic of your choice.

4.0 CONCLUSION

The unit has exposed you to the stages in scriptwriting viz-writing the outlines, writing the first draft and rewriting the script until you have a finished product that you can record. At the end of the unit, you learnt how to write a detailed instructional radio script. Writing the script is very essential in programme production.

5.0 SUMMARY

The unit has practicalized the writing of a script for an instructional radio production. Every instructional radio programme producer must perforce write a script. As producers, we cannot get away from scriptwriting. It is the foundation to programme production. The script is a working document shared by all who are involved in programme production. Even the technical crew members must be given their scripts. In order to write a good script, the producer must follow the three relevant stages stated viz: developing the script outlines, writing the first draft of the script and rewriting the script. The need to use appropriate language and vocabulary during the script writing was also emphasized.

6.0 TUTOR-MARKED ASSIGNMENT

Write a ten minute instructional radio programme script on your chosen subject area and on a topic of your choice reflecting the four elements in sound design viz: speech, sound effects, music and silence.

7.0 REFERENCES/FURTHER READINGS

Ralph Milton (1968). *Radio Programming – A Basic Training Manual*. Takenham: Cox and Wyman Ltd.

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UNIT 6: PRODUCTION AND POSTPRODUCTION STAGES

CONTENTS

1.0 INTRODUCTION

In the last unit, we learnt about the three stages in production. At the end of the unit, you learnt how to write a detailed instructional radio script. In this unit, we will learn about presentation techniques during the studio recording, and also have insight into, post-production or editing of our programmes. Finally, we will learn how to undertake the evaluation of our instructional radio programme.

2.0 OBJECTIVES

After studying this unit, you should be able to:

1) ·specify some techniques a presenter should possess
2) ·describe post-production activities
3) ·evaluate your own finished instructional radio programme
4) ·evaluate yourself.

3.0 MAIN CONTENT: Presentation Techniques

After writing the script of your instructional radio programme, you head for the studio for presentation and recording. The basis of good instructional radio production is communication. Good radio speaking is not easy to learn. It takes a great deal of practice and hard work. Here are some presentation tips I will like to share with you.

3.1 Read Aloud your Script

You will help yourself very much if you spend a lot of time by yourself reading out loud. Read it a second time aloud and try to sound as **friendly** as you can. Read it a third time and try to sound as **sincere** as you can. Read it out a fourth time and try to sound as **conversational** as you can. Try to sound as if you are talking to somebody sitting quietly beside you. Read it a fifth time, very slowly making sure that every sound in every word comes out clearly. Now, read over your talk silently and underline all the words needing emphasis.

3.2 Smile

Always remember to put a smile on your face. It will make your voice friendlier, more relaxed, more pleasant, more warm and it will keep you from making mistakes.

3.3 Rehearsal

You need to rehearse the script with others involved in the production. Are you using some students or other artists? You need to rehearse. The studio engineers will of course direct the placement of the microphones and where you will sit or stand. Remember that you should be about 10-14 inches away from the microphone. While there, relax, smile, stretch, and enjoy yourself because you are speaking to friends. Go ahead and record your programme.

3.4 Other Presentation Tips

i. You should speak out at comfortable pace
ii. You should aim for a smooth flow of words
iii. You should infect and modulate your voice properly
iv. You should stick to correct pronunciation of words
v. You should be calm and confident when ad-libbing
vi. You should woo the listeners politely
vi. You should apologize for any error

SELF ASSESSMENT EXERCISE 1

Suggest some techniques a presenter of an instructional radio programme should possess.

3.5 Postproduction Activities

This is the joining together of all the segments or frames gathered during the preproduction and production processes into a finished product. You need to add all the four elements in sound design together. Don't forget the four elements of speech, sound effects, music and silence. Simply stated, postproduction is the final stage in the production process when all previously recorded materials are edited and mixed. What had been recorded is shaped and put into its final form. Finally, you can dub the programmes for distribution.

3.5.1 Reasons for Editing

There are several reasons for editing:

1. Programme segments may need to be rearranged, shortened or removed altogether.

2. It also makes it possible to record a segment several times and choose the best parts of each take. As you are presenting your programmes, there can be errors when you say "I'll take that again". May be the second take will be better than the first, so the first take will be deleted and the second take will be used.

3. Editing can improve the pace as well as the timing of a programme.

4. It can eliminate mistakes, long pauses, coughing, "ahs" "ers" "ums", "eheh" and other awkwardness.

5. In general, parts of words can be transposed, music can be restructured, sound effects can be changed, the quality of dialogue can be improved and

other sound effects can be added to lend a sense of realism to the segments.

3.5.2 Two Ways of Editing Sound Programme

There are basically two ways to edit sound. The first way is the cutting and splicing tape, a manual way to edit, and the second way is computer assisted audio editing (editing digitally).

1. Cutting and Splicing Tape: This is the system used in the olden days for analog audio tape recordings. You need the following items:
i. Cutting tools: These are the metal block and razor blade
ii. Marking pen or pencil: A very soft lead pencil or an indelible felt pen can be used to mark the editing point on the recording.
iii. Splicing tape: The tape is specially made to stick to recording tape. Most splicing tape comes in rolls.

2. Computer-Assisted Audio Editing: Editing sound programme using cutting and splicing can be laborious and time consuming. Nowadays, we use computer work stations to edit audio programmes. Computers have made possible, wave-form editing. Instead of editing music, sound effects and speech by the cut and splice method the sound's wave form is displayed on the computer screen. By using the mouse, it is possible to alter the waveform and therefore the sound in any way. Effects can be positioned against material already recorded by seeing the waveforms of the sounds on any two tracks at the same time.

SELF ASSESSMENT EXERCISE 2

1. State four reasons why you need to edit your recordings.
2. Describe the ancient and modern ways of editing audio tape recording

3.6 Evaluating your Finished Product

3.6.1 Evaluating the Programme

In producing audio, sound quality should be evaluated every step of the way. It is after the final editing that the moment of truth arrives. You can evaluate your programme using these parameters while listening to the programme.

i. Intelligibility: Are your spoken words or narration, dialogue and music intelligible? It makes sense that if there are narration, dialogue or song lyrics, the words must be intelligible. If not the meaning is lost and you are not communicating. Therefore, you need to tune your 'ears' as if you were hearing the words for the first time.

ii. Tonal Balance: The timbre of the voice, sound effects and musical instruments should sound so natural. Ensemble sound should blend. Check for the balance in tones until you are satisfied.

iii. Definition: Each element should be clearly defined - identifiable, separate and distinct or if you are mixing, they should blend so that no one element stands out like a sore thumb or another element masking another one. Each element should have its position and be a natural part of the sound's overall arrangement.

iv. Cleanness: A clean recording is noise and distortion free. Hum, hiss, leakage, blurring from too much reverberation and loudness adversely affect sound clarity.
v. Airiness: Sound should be airy and open. It should not sound isolated, stuffy, muffled, closed down, lifeless, overwhelming and oppressive.

vi. Production values: These relate to your style, the interest you can sustain in your programme and your own creativeness or inventiveness. Material with excellent production values "grabs" and moves your target audience.

3.6.2 Evaluating Yourself

If you learn to judge yourself carefully each time, then you will become an expert programme writer and producer. If you do not learn to criticize yourself, your work will be of low value. You can prepare yourself a checklist thus:

i. Did my instructional message comply with the objectives stated?
ii. Did I say things that were important to the students?
iii. Did my programme have an interesting beginning that the listener would really want to hear the rest of it?
iv. Did I use colourful or pleasant words or phrase to make my instructional radio programme interesting?
v. Did my voice sound so natural as if I was talking to a friend beside me?
vi. Was the language simple enough for the students to comprehend?

Listen to the tape recording of your instructional radio programme several times to be sure that you have answered the questions posed. If you are able to answer 'yes' to all of them, then you are home free. If not, you begin from the scratch that is, go back to the preproduction planning stage.

SELF ASSESSMENT EXERCISE 3

1. In evaluating your instructional radio programme mention at least four parameters you will use.
2. In evaluating yourself, draw up four questions you may ask yourself.

4.0 CONCLUSION

In this final unit, we have learnt of the presentation techniques you can adopt while presenting your own programme. We have described some postproduction activities like editing and dubbing of the programmes. We also learnt about some reasons necessitating editing. Finally, we learnt about the parameters we can use in assessing the programme and posed some questions on self assessment.

5.0 SUMMARY

The unit has dealt with the last stage in instructional radio programme production. An instructional radio programme producer must be a good presenter; he must rehearse the programme before recording and look presentable in the studio during the presentation time. The post production activities include editing of the programme before dubbing or transmitting the programme to the target audience. We also learnt that no matter how good a programme is it must be evaluated as part of quality assurance. A producer must also learn to evaluate himself.

6.0 TUTOR-MARKED ASSIGNMENT

Describe four ways of evaluating an instructional radio programme and four ways of evaluating yourself.

7.0 REFERENCES/FURTHER READINGS

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MODULE 4

UNIT 1: GENERATIONS OF MEDIA AND TECHNOLOGIES IN DISTANCE EDUCATION

CONTENTS

1.0 INTRODUCTION

The evolution of media and technologies in distance education did not occur overnight or totally. The evolutionary process has taken place gradually and

frequently each of the emerging educational delivery technologies has been incorporated into different distance education systems, resulting in a total multimedia-based distance educational system comprised of various generations of distance technology and media. This study unit will guide you through the several generations of ODL technologies that have evolved with time.

2.0 OBJECTIVES

By the end of this unit you should;

1) State the roles of ICTs
2) Identify different models of distance education and the different media technologies used for delivery
3) Understand the characteristics of the technologies and media used in distance education
4) Identify various media and tools used in distance education

3.0 MAIN CONTENT

3.1 About Open and Distance Leaning

Open and distance learning is defined by the Commonwealth of Learning as “a way of providing learning opportunities that is characterized by the separation of teacher and learner in time or place, or both time and place; learning that is certified in some way by an institution or agency; the use of a variety of media, including print and electronic; two-way communications that allow learners and tutors to interact; the possibility of occasional face-to-face meetings; and a specialized division of labour in the production and delivery of courses.”10

3.2 ICTs and Access to Education

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies—scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll in traditional institutions. The benefit of media can be grouped into two: anytime, anywhere. One defining feature of ICTs is their ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based

educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location. Additionally, certain types of ICTs, such as teleconferencing technologies, enable instruction to be received simultaneously by multiple, geographically dispersed learners (i.e., synchronous learning).

Access to remote learning resources. Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantities) for their educational needs. With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even some in developed countries, that have limited and outdated library resources. ICTs also facilitate access to resource persons—mentors, experts, researchers, professionals, business leaders, and peers—all over the world.

Media Utilization is the systematic use of resources for learning for example providing services and resources to users in different formats that support curriculum needs; providing accurate and prompt reference information.

3.3 Different Generations and Models of Distance Education

The Australian Scholar, Professor James Taylor (Taylor,1995) identified four generations of distance. Each generation is based on a different model. A summary of the models is presented in Table 1.

First Generation – The Correspondence Model

The information and communications technology of first generation distance education was written and printed materials distributed through the postal system which developed in every country from the end of the nineteenth century onwards. Known as correspondence courses, students generally were provided with study guides and textbooks and sometimes with supplemental reading lists. In these courses students were expected to respond to questions that distant teachers then read and assessed.

There is very little scope for interaction between the teacher and the learner and there is little flexibility with respect to time, place and pace of study

Second Generation - The Multi-media Model

The setting up of the Open University in the Great Britain in 1969 marked the beginning of the second generation of distance education. Though the dominant technology remained print and the medium text, this was the first time an

integrated multiple-media approach was applied on a large scale. The Open University was known for developing large quantities of high quality materials designed especially for distance education. Both one-way (from university to students in the form of print, broadcasts, and audiotapes) and two-way communications (between tutors and students through correspondence tutoring, face-to-face tutorials and short residential courses and in more recent years by telephone, video and computer conferencing) were applied.

There is lot of flexibility with regard to time, place and pace of study. Only computer-based courseware and interactive video provide flexibility in interacting with the media based content.

Third Generation - The Tele-learning Model

This form of distance education is based on the use of information technologies which includes audio-teleconferencing, audio graphic communication systems, video conferencing and broadcast television, radio with audio teleconferencing. Though interaction is possible through such media, there is no flexibility with respect to time, place and pace.

Fourth Generation - The Flexible Learning Model

The Flexible Learning Model suggests the enhancing of interactivity through multi-media, computer mediated communication offered by connection to the internet, and web based instructions. It provides greater flexibility with respect to time, place and pace of study. These technologies can support contiguous two-way communication between teachers and learners. Highly refined materials can be used through these technologies.

The Emerging Fifth Generation- The Intelligent Flexible Learning Model

According to Taylor (1999) although the Flexible Learning Model based on on-line delivery via the internet is still gaining momentum, there is already emerging the fifth generation of distance education based on the further exploitation of new technologies. This new generation aims to capitalize on the features of the internet and the web. The Intelligent Flexible Learning Model of distance education incorporates the use of automated response systems and intelligent object databases in the context of internet-based delivery. This model of distance education has the potential to provide students with a valuable, personalized pedagogical experience

Table 1: Models of Distance Education: A Conceptual Framework

Models of Distance Education	Associated Delivery Technologies
First Generation - The Correspondence Model	□□ Print
Second Generation - The Multi-Media Model	□□ Print □□ Audiotape □□ Videotape □□ Computer-based learning (eg CML/CAL) □□ Interactive video (disk and tape) □□ Interactive multimedia (IMM)
Third Generation - The Tele-learning Model	□□ Audioteleconferencing □□ Videoconferencing □□ Audiographic Communication (eg Smart 2000) □□ Broadcast TV/Radio + Audioteleconferencing
Fourth generation - The Flexible Learning Model	□□ Interactive multimedia (IMM) □□ Computer mediated communication (CMC)(eg Email, CoSyetc)
Fifth generation-The Intelligent Flexible Learning Model	□ Interactive multimedia □ Internet-based access to www resources □ Computer mediated communication, using automated response system

Source: Taylor, J.C. (1999) Distance education: The fifth generation. Paper presented at the 19th ICDE world conference on open learning and distance education, Vienna.

3.4 Media Tools

3.4.1 Print Media

Print materials used for distance education take many forms, e.g. Self-learning text, specially written handbook, programme guide, study guide and etc. These materials are specially prepared keeping in mind the characteristics of the distance learners.

3.4.2 Audio Cassettes

Audio cassettes have been used for educational purposes in many developed and developing countries including India. Audio cassettes present considerable freedom to the learners. They can choose their own time and place to listen to these. They can use these time and again until they master the course content.

3.4.3 Video Cassettes

Video can supplement broadcast television in distance education. Several open universities in the world have been using this technology quite effectively. The main advantage of the video cassette is that you can watch it according to your schedule, you can stop it, replay it and even record some programmes.

3.4.4 Interactive Video

It includes video cassettes and video discs (digitally recorded video and sound) controlled by a special player or a computer. The learner can interact with the

video images and sound. It is a one-way communication. Through this the learner can't interact with the teacher.

3.4.5 Computer-Assisted Learning

In computer assisted learning, computers work interactively with the learners, provide instant feedback. Computer works as a tutor, provides information and tests the learner. Computer controls the route the learner takes.

3.4.6 Interactive Radio

Interactive-radio phone-in programme is an important innovation in distance education. Live counseling is provided by invited experts/resource persons on radio. The learners can ask questions to the experts/resource persons during the session from their homes, study centres or any other places on telephone. The experts/resource persons give answers to their questions immediately from the studio at the radio station.

3.4.7 Audio-and-Video Conferencing/Tele-Conferencing

Several open universities in the world have been using teleconferencing on regular basis. It may be of various types:

a. Two-way audio: teachers and learners interact over the telephone.

b. Two-way audiographic: while the telephone conversations between the teachers and learners are on, graphic and pictorial representations are transmitted via another (parallel) telephone line.

c. One way video and two-way audio: presentation of the teacher is transmitted from studio to different locations via satellite television. Learners interact through telephone. The teacher can't see the learner.

d. Two-way audio and two-way video: this is a modified form of type 'C' described above. In this situation teachers can also watch learners while interacting. A complete reciprocal audio and video connection is established.

3.5 Comparative use of communication Channels in ODL

	Developing Countries (%)	Industrial Countries (%)
Mail & physical delivery	86	87
Public service telephone network	57	83
Radio	29	6
Direct broadcast TV	16	9

Terrestrial broadcast TV	11	13
Integrated services digital network	7	20
Specialized links (unspecified)	2	17
Digital specialized links	5	11
Public data network	2	12
Cable	2	11

(**Source:** Von Euler and Berg 1998).

4.0 CONCLUSION

Distance education has evolved from correspondence to broadcast radio, to teleconferencing, to mixed multimedia, and currently to Web-Based or virtual learning. Some media technologies are primarily for one-way communication; they extend the possibilities for delivering prepared educational materials to learners. Other technologies support two-way communication and offer the potential for more interaction between all the humans involved.

5.0 SUMMARY

The evolution of media and technologies in distance education has evolved over time. The evolution can be described in six generations of distance learning technologies from the correspondence model to the intelligent flexible learning model.

6.0 TUTOR-MARKED ASSIGNMENT

1. Think further about the potential development of distance education from the perspective of the evolution of technology and list your findings
2. Discuss the progression of distance learning technologies over the years
3. Identify the media tools used widely today

7.0 REFERENCES AND FURTHER READING

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UNIT 2: COMPUTER AND COMMUNICATIONS NETWORK

CONTENTS

1.0 INTRODUCTION

In the last unit we looked at the internet and some network concepts. In this unit we will expand on communication networks by describing the different communication channels.

2.0 OBJECTIVES

By the end of this unit you should be able to

1) State the principles of communication networks.

2) Identify the various types of network service applications
3) State the various network channels with examples.
4) Identify the five transport technologies that are in widespread use in physical channel networks.

3.0 MAIN CONTENT

3.1 Computer Network

A computer network is a system of interconnected computers and peripheral devices. For example, it may connect computers, printers, scanners and cameras. Using hardware and software, these interconnected computing devices can communicate with each other through defined rules of data communications. In a network, computers can exchange and share information and resources.

A computer network may operate on wired connections or wireless connections. When two or more networks are linked or connected and are able to communicate with one another using suitable hardware and software, it is called an internetwork.

3.2 Communications

Communications is about the transfer of information from a sender, across a distance, to a receiver. Using electricity, radio waves or light, information and data in the form of codes are transmitted through a physical medium such as wire, cable, or even the atmosphere.

Therefore, in order to make communications possible from computers, across telephones and radios and back to computers and other digital devices again, there must be a signal translator, which we call – a modem. The **modem**, which is short for modulator or demodulator, converts digital signals into analog and back again into digital signals for information to move across the telephone line.

3.3 Basic Advantages of Using Networks

There are many possible advantages of using networks. The basic ones are:

- The sharing of resources (e.g computers and staff) and information
- The provision of local facilities without the loss of central control
- The even distribution of work, processing loads, e.t.c.
- Shared risk and mutual support.
- Improved and more economic communication facilities in general, e.g. including voice communications.

3.4 Connections for Networking

The following connections are required for networking

- A physical medium – to allow data to travel across it from device to device.
- A set of rules called protocols to ensure that interconnected computing devices have the same standards for exchange of information to occur smoothly.
- A system application for managing network information flow to ensure that data transmission sent from one device is received by the intended receiver.

3.5 Basic Components of a Network

A classical computer network has three essential components or segments namely; a network software, an application software and network hardware. They are as follows:

3.5.1 Network Software

This also, consists of computer programs that establish protocols, or rules for computers to talk to one another. These protocols are carried out by sending, and receiving formatted instructions of data called packets. Protocols make reasonable connections between network applications, direct the movement of packets through the physical network, and reduce the chances of clashes between packets sent at the same time.

3.5.2 Application Software

This consist of computer programs that interface with network users and permit the sharing of information such as files, graphics, videos, and other resources like printers and disks. The types of application software are called client-server and peer-to-peer.

Client/Server Application: Client computers send requests for information or requests to use resources to other computers in a network, called Servers. Network and web servers control data and applications commonly. Often, as a network grows and more computers are added, one computer will act as a server. A server is a central storage point for files or application programs shared on the network.

An example involves a database that can be accessed via a network. The database is stored on a network server, along with a portion of the database

management system (DBMS). The DBMS allows users to work with the database. The user's computer (which can be called the node, workstation, or client) stores and runs the client portion of the DBMS.

Peer-to-peer: In a peer-to-peer network, (sometimes called workgroup) you don't need to have a dedicated server in your network, because all nodes on the network have equal relationship to all others. Therefore, computers send messages and requests directly to other computers of their social class on the network without a Server linkage.

3.5.3 Network Hardware

This consists of the computers, nodes and the physical components such as: cables, connectors and network adapter (Network Interface Card, modem, wireless cards, e.t.c.) that interconnect them together. Whereas the cables and connectors serve as a pathway for the smooth flow of electrical signals in-between devices, the network adapter makes it possible for different computers, with different speeds, voltages and codes to work together, following a set of rules, or a standard known as a Protocol.

3.6 Network Channels

Communications Channel/Communications Medium is the physical or cable less (non-cable) media that link the different components of a network.

Physical Channels:

- ***Twisted Pair:*** A physical communications channel that uses strands of copper wire twisted together in pairs to form a telephone wire.
- ***Coaxial Cable/Co-ax:*** A physical communications channel that uses one or more central wire conductors surrounded by an insulator and encase in either a wire mesh or metal sheathing.
- ***Coaxial Cable/Co-ax:***
    - *Baseband Cable:* Carries a single communication or message at very high megabit speeds, is often used in local area networks.
    - *Broadband Cable:* Carries multiple signals – data, voice, and video – simultaneously; each signal can be a different speed.
- ***Fiber-optic Cable:*** A physical communications channel that uses light and glass fibers.

Wireless Channels

Wireless channels transmit data using radio signals sent through air or space rather than over wire or optical cables.

– **Microwave:** A non-cable medium that uses high-frequency radio signals to send data or information through the air.

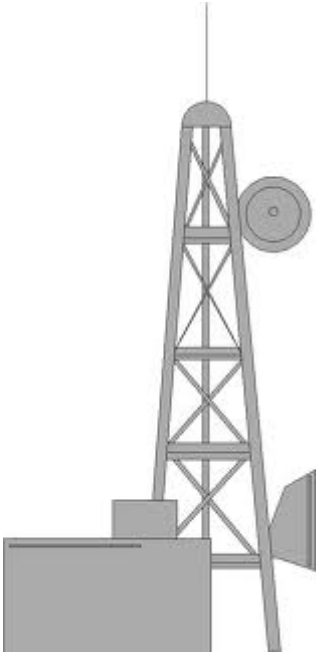

Figure Microwave Station

- **Satellite:** A non-cable medium in which communications are beamed from a microwave station to a communications satellite to orbit above the earth and relayed to other earth stations.
    - *Low-earth-orbit satellite (LEO*): Because they circle Earth at a distance far closer than other satellites, LEO satellite systems offer significant advantages: they do not have the comparatively long propagation delays, do not require use of bulky, expensive, directional antennas, less expensive to produce and to launch into orbit. However, greater number are needed to provide coverage for a geographic because they do orbit closer to Earth.
    - *Very Small Aperture Terminal (VSAT):* A satellite earth station with an antenna diameter of under one meter.

- **Infrared**: A non-cable medium that transmits data and information in coded form by means of an infrared light beamed from one transceiver to another.

- ***Transceiver:*** A combination transmitter and receiver that transmits and receives data and information.

- **Radio Waves:** Radio Wave Transmission/Radio Frequency (RF) Transmission: A non-cable medium that uses frequencies rented from public radio networks to transmit data and information.

4.0 CONCLUSION

We can conclude that computer networks and communication makes our life easier to communicate with each other and the world using the computer. A standard computer network has three essential components or segments namely; a network software, an application software and network hardware. Communication channels are of two types; cable and non-cable.

5.0 SUMMARY

In this unit you learnt that a communication network is made up of:

- A computer network is a system of interconnected computers and peripheral devices.
- Extended networks - using Microwave/RF radio, switch and hub.
- Physical Channels: Twisted Pair, Co-ax and Fiber-optic Cable.
- Wireless Channels: Microwave, Satellite, Radio Frequency (RF)
- Transmission.

6.0 TUTOR MARKED ASSIGNMENT (TMA)

a. What is a communication network?
b. List three network service applications you know.
c. Discuss the different communications channels?

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UNIT 3: SATELLITE TECHNOLOGY AND DISTANCE EDUCATION

CONTENTS

1.0 INTRODUCTION

Satellites have the capability of delivering live educational and training programmes and data transmission simultaneously. Satellite transmission is used for presentations normally to a live audience and enables lectures to be delivered at a distance. There is no limit to the number of receive sites. Since the cost is in the transmission the greater the number of sites and participants the more economic is the delivery.

2.0 OBJECTIVES

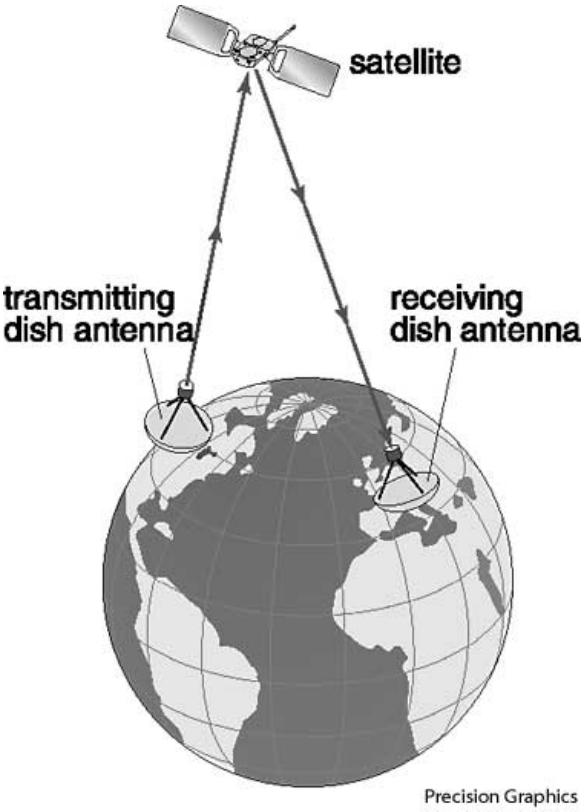
By the end of this unit you should be able to

1) Define and explain satellite technology
2) Outline the history of satellite technology
3) Understand the application of satellite technology to distance education
4) Discus asynchronous and synchronous distance education systems
5) Identify critical tasks for successful technology deployment

3.0 MAIN CONTENT

3.1 Definition of Satellite

In general, a satellite is anything that orbits something else, as, for example, the moon orbits the earth. In a communications context, a satellite is a specialized wireless receiver/transmitter that is launched by a rocket and placed in orbit around the earth. There are hundreds of satellites currently in operation. They are used for such diverse purposes as weather forecasting, television broadcast, amateur radio communications, Internet communications, and the Global Positioning System, (GPS).



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If a satellite's orbit is a ring directly above the equator at this height, the satellite will remain over the same spot on Earth. Such an orbit is known as a geostationary orbit, and a satellite in a geostationary orbit is called a **geostationary satellite**.

Telstar I was the first communications satellite that allowed television signals to be sent across the Atlantic, in 1962. Telstar I was not in geostationary orbit and as a consequence was only in the right position to allow transatlantic communications for 30 minutes at a time, three or four times a day.

3.2 History of Satellites

The first satellite, USSR's Sputnik was launched on October 4th, 1957. Sputnik was essentially an orbiting radio transmitter, and was limited in both function and lifespan.40 years on, satellites are finally coming of age as the most extensive, advanced and versatile communications hardware in existence.The first experimental geostationary satellites were launched in 1963 while the first commercial service on satellite began in 1965.

Satellites and their most popular deliverable, television, is now a familiar feature of life in industrial societies. Most individuals by now are aware that global information can be easily accessed by the simple installation of a satellite antenna dish and a decoder/receiver connected to a domestic television screen.

3.3 Characteristics of satellite transmission

A satellite transmission (sometimes referred to as 'uplink') broadcasts a signal to one of the many communication satellites stationed above the equator at a height of 36,000 km. They achieve this by matching the angular velocity of the Earth, thereby remaining above the same point on the earth's surface as it rotates.

The satellite signal consists of a broadband video channel and normally three audio or data channels with a total bandwidth of 34 megabits. A digital encoder can now be used to digitise and compress this signal to about 2.5 megabits. This enables several channels to be transmitted on the same satellite transponder for commercial broadcasts to homes but it also means that educational users can rent a portion of a transponder thus reducing costs by a factor of ten. The transmission can be from a television studio or from an enhanced lecture room. Most educational broadcasts are live with questions being asked to the studio experts via telephone or videoconference. The session including the questions can be recorded for future use, for example by those who are not able to attend the viewing of the live session. The receive equipment at each site consists of a small satellite dish (usually between 1 and 1.2 metres in diameter) linked to a satellite receiver or digital decoder which feeds a television set and video recorder. If data is being transmitted the receiver also feeds a computer.

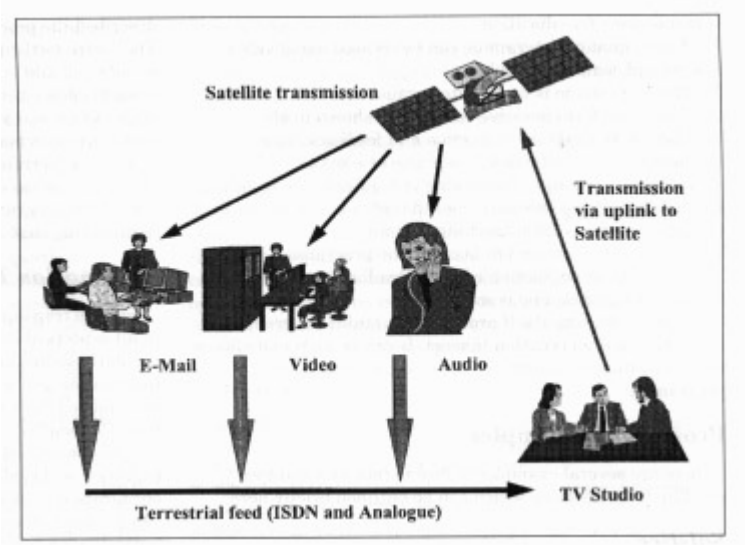

Figure Teleconferencing via satellite and terrestrial links

3.4 Applications in Distance Education

- Satellite transmissions can overcome many of the previously Insurmountable problems presented by delivering quality learning experiences to remote students. Distance is no object providing the recipient is within the beam coverage or 'footprint' of the satellite.
- Satellite technology is extremely versatile, and features a variety of delivery sub-modes including the simultaneous transmission of audio, still and moving images, and data in the form of text and graphics.
- Digitization is reducing the costs of transmissions greatly. A fraction of a satellite transponder is required to transmit digital signals, and as many as ten digital services can occupy the frequency previously required by one conventional analogue service.
- Satellite transmission is particularly valuable for training in all aspects of computing. Software in particular is updated regularly by manufacturers so live programmes providing the very latest information is important.
- In addition to video, satellite transmission includes three audio or data channels

3.5 Seven Special Advantages of Satellite transmission

In summary there are six special advantages of live satellite transmissions for education:

1) A high quality programme can be created using video inserts and computer graphics.

2) The programme is up-to-date because it is live. Latest techniques in post-operative care can be shown to all. There is immediate interaction and feedback from the learners by Video conference, telephone or e-mail.

3) Reception is simple. No cabling is required.

4) Production costs are low because the programme is live. There is no post production editing. Deadlines must be met because the programme is scheduled.

5) The programme itself provides a stimulus for group discussion and an occasion to meet. It can be an update for on the job training or integrated into a degree or diploma programme.

3.6 Asynchronous or On Demand Distance Education System (DES)

1. Freedom of time, so that learners participate when, and if, they choose
2. Time for reflection
3. Opportunities to research and backup one's assertions
4. Allows global communication, un-bounded by time zone constraints

3.7 Synchronous or Real Time DES

1. Immediacy
2. Live, highly interactive, feel like in the classroom
3. Face-to-face tutoring and
4. Small group discussion
5. Can be recorded for future use in the asynchronous system

In general, a video conferencing system – plus sufficient education related software - can be used as a distance education system.

3.8 Tasks for successful Technology Deployment

For a successful deployment of distance education the following tasks are required.

Administrative Tasks

These involves the following

- Storage and deletion of contents
- Input and change of content-specific information
- Monitoring of user access
- Accounting and billing
- Evaluation and usage statistics
- Backup and long-term archiving
- Hardware and software administration

Editorial Tasks

This task is crucial to avoid mistakes and errors in content to be delivered. The main tasks include:

- Editing of contents or transfer to an external service center
- Simple video cut
- Put together training videos in cooperation with the trainers
- Editing of content catalog
- Editing of WWW pages

Task of Trainersand Content Authors

This task is required for smooth operation and involves

- Preparation, running and evaluation of a distance training session
- Preparation, running and evaluation of a live training session
- Editorial support of content manager
- Joint production of training videos
- Joint production of new training contents and material

3.9 The Future

As the quantity of information expands expertise becomes necessarily more specialised. No one tutor can possess the breadth of subject expertise required. Satellite technology can bring the most recent developments and techniques direct to the most remote location. The local tutor and student can ask questions directly to the experts. Costs are falling continually, with digitisation and compression leading to smaller and cheaper transmission and reception equipment.

4.0 CONCLUSION

A satellite is simply described as anything that orbits something else. Communication satellites are specialized wireless receiver/transmitter that is launched by a rocket and placed in orbit around the earth. Satellites have far reaching implications in open and distance learning as they can help to support synchronous and asynchronous distance education systems

5.0 SUMMARY

6.0 TUTOR MARKED ASSIGNMENTS

1. Discuss the concept of satellite technology.
2. Outline the different applications of satellite technology to distance education.
3. Explain the different tasks that must be carefully considered when deploying satellite technology.
4. Differentiate between synchronous and asynchronous distance education.

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UNIT 4: INTRODUCTION TO THE INTERNET

CONTENTS

1.0 INTRODUCTION

It is no secret that more and more the internet is becoming an integral part of our everyday lives. But if you are new to the online experience, especially as it relates to distance learning it may be a bit overwhelming. You may be wondering, "What exactly is the internet, and how does it work?"

In this unit, we will give a brief overview of the internet, and we will look at some fundamental concepts such as networks, servers, and clients and see the relevance in distance education.

2.0 OBJECTIVES

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

1) Understand the Internet
2) Understand the potential uses of the Internet in Distance Education
3) Understand the concepts of networks, servers and clients

3.0 MAIN CONTENT

3.1 The Internet Today

The foundation of the internet began in 1969, when the US Department of Defense created **ARPAnet**, a project to allow military personnel to communicate with each other in an emergency.

In the early days, most people just used the internet to search for information. Today's internet is a constantly evolving tool, which not only contains an amazing variety of information, but also provides new ways of accessing, interacting and connecting with people and content making them useful tools in Open and Distance Learning . As a result, new terms are constantly appearing as new technologies are introduced. Some of the terms that have evolved over the years are described below;

Email (short for "electronic mail") is a system for sending and receiving messages online. Many email services include extra features such as calendars, task lists, instant messaging, web feeds, and news headlines. Common examples are Yahoo mail, Gmail and Hotmail.

Voice over Internet Protocol (VoIP), also known as internet telephone, allows a user to have telephone service through an internet connection. Some people find that they can save money by using VoIP instead of purchasing a separate telephone service. One example is Skype.

"**Blog**" is short for "web log." It's a type of web site that is usually updated frequently, often with news articles or random thoughts. Some sites, such as blogger.com and wordpress.com allow you to create and edit your own blog for free

A **wiki** is a type of website that allows content to be edited or created by anyone. This allows content to stay up to date and (ideally) allows for errors to be found and corrected. Examples include Wikipedia, which is an encyclopedia, and wikiHow, which is a collection of how-to guides.

Social networking refers to online services that allow people to interact with each other and stay connected with friends, family, and people around the world. Examples include Facebook and Twitter. Some social networking sites, such as LinkedIn, focus on career networking.

Streaming: If you watch a movie online or listen to iTunes radio, it's called streaming media, which means it plays while downloading so you don't have to wait for it to download first. The media starts downloading a little bit before it starts playing (called "buffering") so that it can play more smoothly.

A **web feed**, also known as a news feed, is a way to receive updates from your favorite web sites and blogs. Instead of visiting many different sites to check for updates, you can read their feeds on a feed reader. Two common feed formats are RSS and Atom.

Online chat is a system that allows users to communicate in real time. Unlike e-mail, all messages show up immediately in the same window, which makes

conversations quicker and easier. Instant messaging is a type of chat where you communicate with a specific person instead of an entire chat room.

With a **podcast**, you can subscribe to a series of audio or video files that will automatically be downloaded to your computer. The files can then be played on the computer or an mp3 player. A podcast is basically a web feed for media. Unlike internet radio, podcasts are not streaming, so the media has to download fully before it can be played.

3.2 What is the Internet

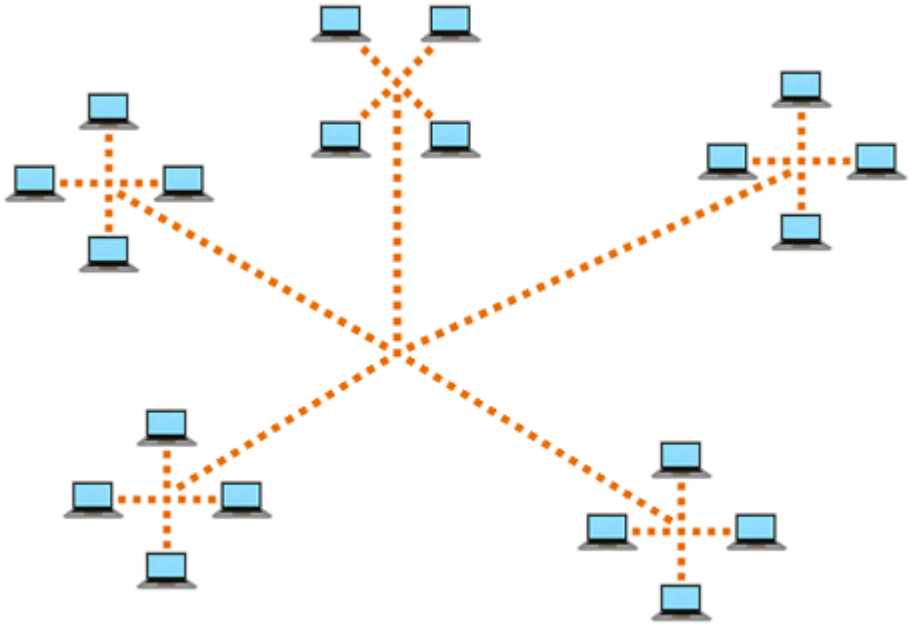
The internet is the largest computer network in the world, connecting millions of computers. A network is a group of two or more computer systems linked together.

There are two main types of networks:

Local Area Network (LAN): A LAN is two or more connected computers sharing certain resources in a relatively small geographic location, often in the same building. Examples include home networks and office networks.

A Local Area Network (LAN)

Wide Area Network (WAN): A WAN typically consists of two or more LANs. The computers are farther apart and are linked by telephone lines, dedicated telephone lines, or radio waves. The **internet** is the largest Wide Area Network (WAN) in existence.



A Wide Area Network (WAN)

3.3 Servers and Clients

You may have heard someone say something like "The server is down" or "We're having problems with the e-mail server." A server is a computer that "serves" many different computers in a network by running specialized software and storing information. For example, web pages are stored on servers.

When you access a web page, your computer is acting as a client. A client runs familiar software such as web browsers or email software, and it communicates with the server to get the information it requires.

In order for your browser to display a web page, it requests the data from the server where the page is stored. The server processes the request, and then sends the data to your browser, where it is displayed.

3.4 The World Wide Web (WWW)

When most people think of the internet, the first thing they think about is the World Wide Web. Nowadays, the terms "internet" and "World Wide Web" are often used interchangeably—but they're actually not the same thing.

- The internet is the physical network of computers all over the world.

- The World Wide Web is a virtual network of web sites connected by hyperlinks (or "links"). Web sites are stored on servers on the internet, so the World Wide Web is a part of the internet.

The World Wide Web was created in 1989 by **Tim Berners-Lee**, a software engineer. The terms commonly associated with the World Wide Web are:

HTML

The backbone of the World Wide Web is made of HTML files, which are specially-formatted documents that can contain links, as well as images and other media. All web browsers can read HTML files.

URL

To get to a web page, you can type the URL (Uniform Resource Locator) in a browser. The URL, also known as the web address, tells the browser exactly where to find the page. However, most of the time, people get to a web page by following a link from a different page or by searching for the page with a search engine.

4.0 CONCLUSION

The internet has become a global phenomenon by, 2011, the number of internet users worldwide reached **2.2 billion**—about one third of the world's population. It is built on the inter-connection of networks.

5.0 SUMMARY

The internet is the largest computer network in the world, connecting millions of computers. There are two main types of networks, the Local Area Network (LAN) and Wide Area Network (WAN). Several terms have become associated with the internet today. These include email, blog, Wiki, VoIP, online chat, streaming and web feeds. Servers and clients are important resources for inter-connectivity.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is the Internet?
2. Outline and discuss three common terms associated with the internet today
3. Differentiate between the World Wide Web and the internet
4. Define LAN and WAN

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UNIT 5: INTERNET FOR DISTANCE EDUCATION: CASE STUDY OF NATIONAL OPEN UNIVERSITY OF NIGERIA

CONTENTS

1.0 INTRODUCTION

The National Open University of Nigeria as a Distance Education, has depended totally on internet for her delivery of institution to her students and even management of students activities. This unit will introduce us to the various aspects of internet usage in the day to day activities of National Open University of Nigeria.

2.0 OBJECTIVES

3.0 MAIN CONTENT

3.1 The Birth of National Open University of Nigeria

The idea of an Open University was conceptualized in 1980, by the then government of Alhaji Shehu Shagari. The Ministry of Education acting on behalf of the Federal government set up three man planning committee that worked out the modalities for the establishment of a single mode Open University in Nigeria (Okonkwo 2012). The National Open University was then established by an Act dated 22nd July 1983 with the following objective as recaptured by Okonkwo, 2012:-

- To encourage the advancement of learning throughout Nigeria by means of tuition carried out mainly by correspondence and closely supplemented

by lectures, broadcasts by radio and television, as well as by occasional seminars, tutorials and counselling services organised through a network of local study centres and to hold out to all persons without distinction of race, creed, sex or political conviction the opportunity of acquiring a higher and liberal education.

- To provide courses of instruction and other facilities for the pursuit of learning in all its branches and to make those facilities available on proper terms to such persons as are equipped to benefit from them, especially those who may not by the nature of their special circumstances enrol for residential full-time University education.

  However, the University was shut down in 1984 by the government of General Buhari, but was resuscitated by 27th of March, 2002 with a flesh mandate to:-

  - Widening of access to education to ensure equity and equality of opportunities;

  - Enhancement of opportunities that support education for all and life –long learning;

  - Entrenchment in the Nigerian populace of the emerging global culture of technological literacy;

  - Provision of infrastructure for the acquisition and dissemination of educational resources via an information and communication technology;

  - Provision of avenues for the acquisition of flexible and qualitative education for all categories of learners which will be accessible anywhere, anytime and via an appropriate and cost effective medium (Federal Ministry of Education, 2002).

Vision of National Open University of Nigeria

The National Open University of Nigeria is to be regarded as the foremost University providing highly accessible and enhanced quality education anchored by social justice, equity, equality and national cohesion through a comprehensive reach that transcended all barriers.

Mission of National Open University of Nigeria

To provide functional, cost-effective, flexible learning which adds life long value to equality education for all who seek knowledge.

Motto of National Open University of Nigeria

Work & Learn. (okonkwo, 2012).

3.2 Internet for Distance Education: Case Study of National Open University of Nigeria

National Open University of Nigeria as a distance Education institution, has depended totally on internet for her delivery of instruction to her students and even management of students activities. This instructional delivery ranges from the students academic management, such as the course material delivery, continuous assessment – tutor marked assignment, final examination, to the management of students admission, records and general administrative matters.

First, the National Open University of Nigeria lecturers use the internet tool as provided by the CNS (Computer Network Services) directorate to upload both their assignment questions to their various students.

3.3 Internet Usage by Lecturers

- *Upload of TMA and Examination Questions:* Internet is used by the NOUN Lectures in this aspect to upload their tutor-marked assignment, which is made available to the students. The current bandwidth of NOUN handles conveniently the uploading of course materials, TMAs and Examination question which are executed by the lectures.

- *E-mail Messages to Students*: This is another aspect in which the internet is utilized in NOUN to reach the students or other academic institutions. The lecturers send messages to their students, have their online publications and other academic related contacts.

- *Online Vetting of Students Projects:* The students of NOUN are encouraged to write and submit their projects or seminars to their various supervisors online. This gesture invariably reduces the movement of the students to their lectures office, hence saves cost of transportation.

Sourcing of Online Instructional Materials: The staff of NOUN have constant internet connectivity, hence are at liberty to source for materials of educational relevance from the net. One major area of interest here is the

- *Assess to open educational resources (OER):* In the same vein, the lecturers source for reputable online Journals where they submit their articles for publication.

3.3.1 Internet Usage by Students

- *Download and Submission of Answered TMA and Examination Questions:* This is a major aspect of internet usage by students of NOUN. In this aspect, all the students must of necessity download their course materials, answer and submit their tutor-marked assignment and they use the Internet during their examination. Therefore, internet becomes the variable instrument that NOUN students must explore for the successful execution of their programmes.

- *E-mail Messages to Lecturers and Colleagues:* In this aspect, the students reach their lecturers at will with their messages. They also connect their colleagues and other academic interests with their requests or solution to problems raised earlier.

- *Sourcing of Other Open Educational Resources Materials:* It is pertinent to note that the NOUN lecturers encourage their students to source for other open educational resources, which are useful to their course of study. In this way, the students are properly equipped with enough materials in their area of study.

- *Application and Acceptance of Admission Forms:* The aspiring students of NOUN are encouraged to use the internet for application and processing of their forms. In the same vein, they admitted students use the internet for their registration formalities, including their course registration.

3.3.2 Internet Usage by Management

The internet is also veritable instrument in the hand of the management of NOUN. The internet is used for various advertisements of the programmes of NOUN, admission and documentation of student's profiles, etc.

7.0 CONCLUSION

The birth of the National Open University of Nigeria raises the hope of widening access to education and ensuring equity and equality of opportunities to all Nigerians. These responsibilities to be shouldered by National Open University of Nigeria are being achieved through the various strands of internet usage.

5.0 SUMMARY

The National Open University of Nigeria was finally established in 2002 with the mandate to provide avenues for the acquisition of flexible and qualitative education for all categories of learners. Internet therefore becomes the major instrument for the delivery of the required educational contents. This is done through the various strands of the lecturers' use of internet, students' use of internet and management use of internet.

6.0 TUTOR-MARKED ASSIGNMENT

1) State the major objectives of the National Open University of Nigeria.

2) Discuss the aspects of internet usage by the lecturers of National Open University of Nigeria.

3) To what extent is internet relevant to the mission of National Open University of Nigeria?

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