COURSE GUIDE

EDT 834
INSTRUCTIONAL TELEVISION AND RADIO

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Introduction

EDT 834 Instructional Television and Radio is a two credit course for the Masters' degree programme in Educational Technology.

The course consists of two (2) modules of seven (7) units each. Module 1
dwells on instructional television while module 2 discusses instructional radio. The material has been developed to suit undergraduate students in Educational Technology at the National Open University of Nigeria (NOUN) by adopting a system that highlights the key areas in Instructional television and radio production.

It is expected that at the completion of this course, a student will surely develop a positive stance to instructional television and radio. In addition, a hardworking student will be able to generate instructional television and radio programmes not only in his subject area but for other areas of learning or entertainment.

Since instructional television and radio are creative efforts, students are expected to improve on their first creative efforts, especially in script-writing, by re-writing the first script and making corrections to write the script as many times as possible until an excellent script is arrived at.

The internet is full of information on instructional television and radio, please avail yourself of the search machines to surf the web and be abreast of developments in this creative area.

The Course Guide tells you briefly what the course is about, what course material you will be using and how you can work your way through the course materials. 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 your Tutor Marked Assignments.

What you Will Learn in this Course

The overall aim of EDT 734 Instructional Television and Radio is to introduce you to some important aspects of Instructional Television and Radio. During the course, you will learn about the uses of Instructional Television and Radio. You will also learn about the classification of the media; types of instructional television and radio; the effectiveness of television and radio in some selected countries across the world; production of instructional television and radio, and finally, the instructional and radio script format.

Learners of nowadays are unique because of the preponderance of mass media. Modern communication technology is already brought into play in the teaching/learning situation. The question now is how we can best use the mass media for effective instruction.

There is affirmation at the end of the course that if properly and creatively used, instructional media can provide us with hitherto unattainable opportunities to enhance the teaching/learning environment.

As you go through the course, you will discover the urgent need to harmonize the traditional ways of teaching with instructional television and radio. The role of media in allowing flexibility in learning is clear: materials - print and audio visual – are attractive alternatives to the routine of lecture. Flexibility is enhanced when alternatives to teacher - talk are available. The course gives you an opportunity for more flexibility in teaching and learning.

Course Aims

This course aims at giving a general understanding of instructional television and radio. The course takes you from media classification to production of your own television and radio instructional materials. By the end of the course, you should be able to plan, write scripts and head for the studio (if available) for your own recordings.

Course Objectives

To achieve the general aims listed above, each unit has specific objectives. The unit objectives are always included at the beginning of a unit. You should pay attention to them before you start working through the unit. You need to refer to the objectives during study of the unit to monitor your progress. After completing the unit, you need to look afresh at the unit objectives. By referring to objectives before, during and after working through the unit, you can be sure you have done what is required of the unit. Set out below are the units' objectives of the course as a whole.

On successful completion of the course, you should be able to:

1. Identify the various classifications of educational media.
2. Describe eight functions of instructional media.
3. Define instructional television.
4. Identify at least three types of instructional television.
5. Categorize the strategic roles of instructional television in a formal educational system.

6. Categorise the strategic roles of instructional television in a non-formal education system.
7. Analyse how United Kingdom has made instructional television effective.
8. Describe how instructional television was used in Ivory Coast.
9. Describe how instructional television was used in USA.
10. Describe the advantages and limitations of instructional television.
11. Identify the production staff team.
12. Identify the production crew team.
13. Explain what a normal television studio is made upof.
14. Distinguish the four stages in television production.
15. State some hints on script-writing for television.
16. Describe the instructional television format.
17. Describe seven steps to assure instructional production.
18. Narrate the historical background of instructional radio.
19. Identify at least three types of instructional radio programmes.
20. Describe the effectiveness of instructional radio in (a) Nicaragua (b) Mexico (c) Kenya.
21. Distinguish between 'hearing' and 'listening'.
22. Identify four areas of breakdown in audio communication.
23. Describe four techniques you can use in improving instructional skills.
24. Discuss five advantages and five limitations of instructional radio
25. Describe one possible use of instructional radio in your area of discipline.
26. Identify some facilities in the performance studio.
27. Identify some facilities in the production control room.
28. Identify some functions of sound in production.
29. Describe the stages in the preproduction of instructional radio programmes.
30. Describe the stages in the script-writing process.
31. Write your own script for an instructional radio production by looking at the sample given.
32. Specify some techniques a presenter should possess.
33. Describe some post-production activities.
34. Evaluate your own finished instructional radio programme
35. Evaluate yourself.

Working through this Course

To complete this course, you are to read the study units, read set texts and other materials provided by NOUN. Each unit contains self-assessment exercises. At the end of each unit is Tutor Marked Assignments. At the end of each course is a final examination. The course should take you about 40 weeks in all to complete. Listed below

are all the components of the course, what you have to do and how you should allocate your time to each unit in order to complete the course successfully and on time.

Course Materials

Major components of the course are:

1. Course Guide
2. Study Units
3. Textbooks
4. Assignment File (will be available in due course)
5. Presentation Schedule

You must obtain the set books relevant for this course. You can also search the internet for more information on the course. Visit the website of NOUN to access more information. You may also contact your tutor at the study centre if you have any problem.

Study Units

The course is made up of the following modules and units

Module 1

Unit 1	Media Classification
Unit 2	Types of Instructional Television
Unit 3	Strategic Roles of Instructional Television
Unit 4	Effectiveness of Instructional Television
Unit 5	Introduction to the Production Instructional Materials
Unit 6	Production of Instructional Television Programmes
Unit 7	An Instructional Television Script.

Module 2

Unit 1	Historical Background to Instructional Radio in Nigeria/ Types of Instructional Radio Programmes
Unit 2	Effectiveness of Instructional Radio-case Studies Unit3 Basic Concepts in Instructional Radio
Unit4	Applications of Instructional Radio/Facilities in theStudio
Unit5	Functions of Sound/Preproduction Staff
Unit6	The Instructional Radio Script
Unit7	Production and Postproduction Stages
Unit 8	Interactive Radio Instruction

The first seven units in Module 1 constitute Instructional Television while the last eight units in Module 2 comprise of instructional Radio.

The two modules cover the relevant aspects in Instructional Television and Instructional Radio. Each study unit consists of three to six weeks of work and includes specific objectives, directions for study, commentaries on reading set texts or other sources and summaries of key issues. The units direct you to work on exercises related to the required readings by giving you self-assessment exercises. In general, the self-assessment exercises question you on the material you have just covered. They help you to gauge your progress and to reinforce your understanding of the material. Together with tutor marked assignments, these exercises will assist you in achieving the stated learning objectives of the individual units and of the course.

Assignment File

In this file, you will find all details of the work you must submit to your tutor for marking. The marks you obtain for these assignments will count towards the final marks you obtain for this course. Further information on assignments will be found in the assignment file itself and later in this course guide in the section on assessment.

There are 14 tutor-marked assignments in the course, the students should do at least 12.

Presentation Schedule

The presentation schedule included in your course materials gives you the important dates for this year for the completion of tutor-marked assignments and attending tutorials. Remember, you are required to submit all your assignments by the due date. You should guide against falling behind in your work.

Assessment

There are two aspects to the assessment of the course. First are the tutor-marked assignments; second is a written examination.

In tackling the assignments, you are expected to apply information, knowledge and techniques gathered during the course. The assignments must be submitted to your tutor for formal assessment in accordance with the deadlines stated in the presentation schedule and the assignment file. The work submitted to your tutor for assessments will count for 50% of your total course work.

At the end of the course, you will need to sit for a final written

examination of three hours' duration. This examination will also count for 50% of your total course mark.

Tutor-Marked Assignment

There are fourteen tutor-marked assignments in this course. You only need to submit twelve assignments. You are encouraged to submit all the twelve assignments as quickly as possible. The highest ten of the twelve marks will be counted in your favour. Each assignment counts 2.5% towards your course mark.

Assignment questions for the units in this course are contained in the assignment file. You will be able to complete your assignments from the information and materials contained in your set texts, reading study units and from other sources like the internet. However, it is desirable in all degree level education 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 (Tutor-Marked Assignment) form, to your tutor. Make sure that each assignment reaches your tutor on or 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. Extensions will not be granted after the due date unless there are exceptional circumstances.

Final Examination and Grading

The final examination for EDT 730 will be of three hours duration and have a value of 50% of the total course grade. The examination will consist of questions which reflect the types of self-testing, practised exercises and Tutor-marked assignments you have previously encountered. All areas of the course will be assessed.

You use the time between finishing the last unit and sitting for the examination to revise the entire course. You might find it useful to review self assessment tests, Tutor-marked assignment and comments on them before the examination. The final examination covers information from all parts of the course.

Course Overview

This table brings together the units, the weeks you should take to

complete them and the tutor-marked assignments that follow them.

Units	Title of Work	Week Activity	Assignment as the End of Unit
Course Guide			
Module 1			
1	Media Classification		
2	Types of Instructional Television		
3	Strategic Roles Television of Instructional		
4	Effectiveness Television of Instructional		
5	Introduction to the Production of Instructional Television Materials		
6	Production of Instructional Television Programmes		
7	The Instructional Television Script		
Module 2			
1	Historical Background to Instructional Radio in Nigeria/Types of Instructional Radio Programmes		
2	Effectiveness of Instructional Radio-Case Studies		
3	Basic Concepts Radio in Instructional		
4	Applications of Instructional Radio/ Facilities in the Studio		
5	Functions of Sound/Preproduction Stage		
6	The Instructional Radio Script		
7	Production and Postproduction Stages		

How to Get the Most of this Course

In distance learning, the study units replace the university lecture. This is one of the great advantages of distance learning system. You can read and work through specially designed study materials at you own pace and at a time and place that suit you best. Think of it as reading the lecture instead of listening to a lecturer. In the same way that a lecturer might give you some readings to do, the study units tell you when to read your set texts or other materials and when to undertake other

practical works. Just as a lecturer might give you an in-class exercise, your study units provide activities (exercises) for you to do at the appropriate points.

Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit and how a particular unit is integrated with the other units and the course as a whole. Next is a set of learning objectives. These objectives let you know what you should be able to do by the time you have completed the unit. You should use the objectives to guide your study. When you have finished the unit, you must go back and check whether you have achieved the objectives. If you make a habit of doing this, you will significantly improve your chances of passing the course.

The main body of the unit guides you through the required reading from other sources. This will usually be either from your set texts or from a reading section. The studio is an important part of the course. You may be directed to visit a television and radio recording studio nearest to you. The studio will of course provide you with the practical experience needed to fully understand the course. Without the studio, you can imagine with your mind's eyes what is happening in the studio but you need to visit the studio even once so you can fully appreciate the impact of the course.

Activities are interspersed throughout the units. Working through these tests will help you to achieve the objectives of the units and prepare you for the tutor-marked assignments and the examination. You should do each activity as you come to it in the study unit. There are also numerous examples given in the study units; work through these when you come to them too.

The following is a practical strategy for working through the course. If you run into any trouble, telephone your tutor. When you need help, don't hesitate to call and ask your tutor to provide it.

1. Read this Course Guide thoroughly.

2 Organize a study schedule. Refer to the course overview for more details. Note the time you are expected to spend on each unit and how the assignments relate to the unit. Important information e.g. details on your tutorials and the data of the first day of the semester are available at the study centre. You need to gather the information in one place, such as your diary or your GSM organizer or a wall calendar. Whatever method you choose to use, you should decide on your own dates for working on each unit.

3. Once you have created your own study schedule, endeavour to stick to it. The major reason why students fail is that they get behind their course work. If you get into difficulties with your schedule, please let your tutor know before it is too late for help.

4. Turn to unit 1 and read the introduction and objectives for the unit.

5. Assemble the study materials. Information about what you need for a unit is given in the introduction at the beginning of each unit. You will almost need both the study unit you are working on and one of your set texts on your desk at the same time.

6. Work through the unit. The content of the unit itself has been arranged to provide a sequence for you to follow. As you work through the unit, you will be instructed to read sections from your set texts or other articles when necessary. Use the unit to guide your reading.

7. Always visit your study centre. Up to date course information will be continuously posted there.

8. Well before the relevant due dates (about 4 weeks before due dates) access the assignment file for your next required assignment. Keep in mind that you will learn a lot by doing the assignments carefully. They have been designed to help you meet the objectives of the course and therefore, will help you pass the examination. Submit all assignments not later than the due dates.

9. Review the objectives for each study unit to confirm that you have achieved them. If you feel unsure about any of the objectives, review the study material or consult your tutor.

10. When you are confident that you have achieved a unit's objectives, you can then start on the next unit. Proceed unit by unit through the course and try to pace your study so that you keep yourself on schedule.

11. When you have submitted an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule. When the assignment is returned, pay particular attention to your tutor's comments, both on the tutor-marked assignment form and on the assignment itself. Consult your tutor as soon as possible if you have any question or any problem.

12. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit's objectives (listed at the beginning of each unit and the course objectives listed in this courseguide).

Facilitators/Tutors and Tutorials

There are twenty hours of tutorials (ten 2- hour sessions) provided in support of this course.

You will be notified of the date, time 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 assignment, keep a close watch on your progress and on any difficulty you might encounter and provide assistance to you during the course. You must mail your Tutor-Marked Assignment to your tutor before the due date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible.

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

(i) You do not understand any part of the study units or the assigned readings
(ii) You have difficulty with the self assessment tests or exercises
(iii) You have a question or a problem with an assignment with your tutor's comments on an assignment or with the grading of 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 which are answered instantly. You can raise any problem encountered in the course of your study. To gain the maximum benefit from course tutorials, prepare a question list before attending them. You will learn a lot from participating in discussions actively.

Summary

EDT 734 intends to expose students to instructional television and instructional radio. Upon completing the course, you will be equipped with the know-how on the production of instructional television and radio programmes. You will be able to answer some questions like:

(1) What is media classification?
(2) What is instructional television?

(3) What are the strategic roles instructional televisions perform in a formal education system?
(4) What are the strategic roles instructional television performs in a non-formal educational system?
(5) How effective have instructional television programmes been in the United Kingdom, Ivory Coast and USA?
(6) What are the advantages and limitations of instructional television?
(7) Who are the people that comprise the television team?
(8) What are the pieces of equipment in the television studio complex?
(9) What are the four stages in television production?
(10) How does an instructional script look like?
(11) What are the seven steps to assure the production of an instructional programme?
(12) Briefly trace the historical background leading to the establishment of educational broadcasting services in Nigeria in 1975.
(13) Mention some problems in education that direct teaching through radio can solve.
(14) Describe how you can design an enrichment programme around a centralized curriculum.
(15) Describe how radio and radio programmes can be best utilized for formal adult education.
(16) Describe how instructional radio can be used to improve the quality of instruction, citing a case study to buttress your point.
(17) Describe how instructional radio can be used in the training of teachers, citing a case study to support your submission.
(18) Distinguish between hearing and listening.
(19) Mention the barriers to communication and what you can do to ameliorate them.
(20) List four advantages and four limitations of instructional radio programmes.
(21) Describe how instructional radio can be used in your area of discipline.
(22) Describe two facilities in the performance studio and eight facilities in the production control room.
(23) Describe three types of microphone by the way they are used and three types of microphones by the way they ‘hear’ the sound.
(24) Describe the seven vital steps you need to consider in the preproduction planning stage in instructional radio production.
(25) Describe the use of speech, sound effects and music in instructional radio production.
(26) Write a ten minute instructional radio programme in your chosen subject area and a topic of your choice reflecting the four elements in sound design viz: speech, sound effects, music and

silence.

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

MAIN COURSE

CONTENTS

MODULE 1

UNIT 1 MEDIACLASSIFICATION

Unit Structure

1.1 Introduction

Several decades ago, worldwide communication of information instantaneously was not so common. Nowadays, there is no doubt that modern communication technology has vastly increased our exposure to information and experience. Most media have implications for education that are only now beginning to be fully understood and appreciated. In fact, there is now the pervasiveness of mass media. You will agree with me that there are more magazines, newspapers and books; there are more programmes on radio and television, as well as programmes on computers that promote teaching and learning process across all levels. In short, modern communication technology is now part and parcel of the learning situation. In this unit, you will study the classification of the media being used in education today.

1.2 Intended Learning Outcomes

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

- identify the various classifications of educational media
- describe eight functions of instructional media.

1. 3 Main Content

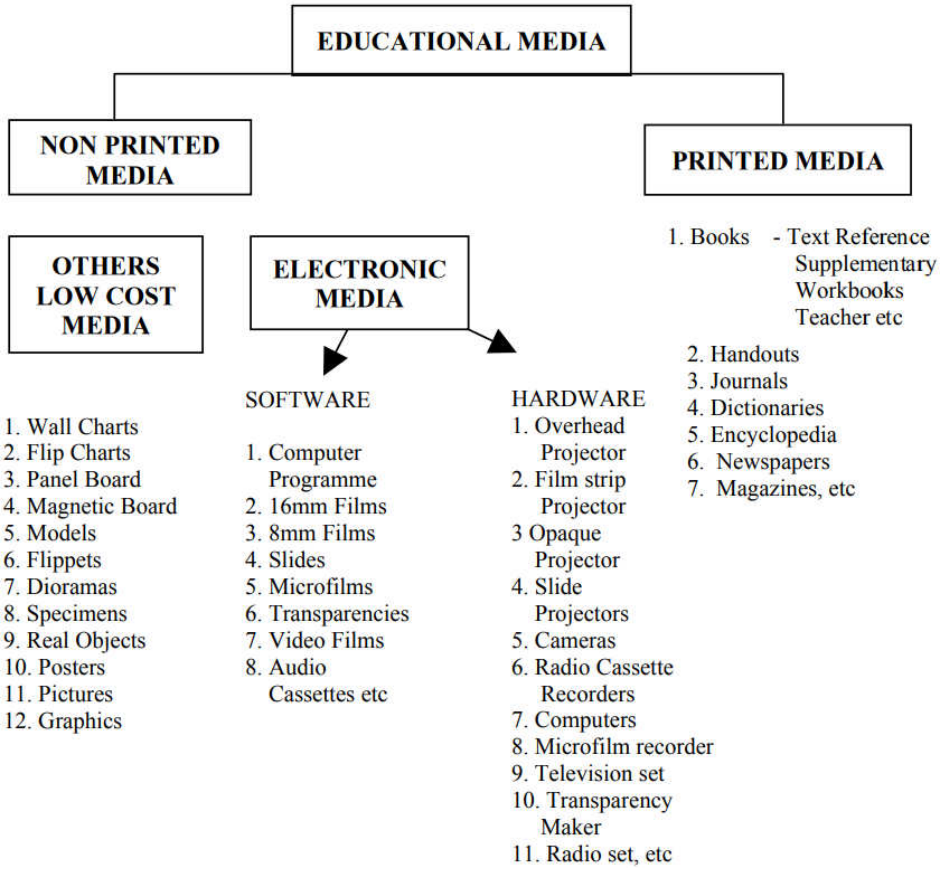
1.3.1 Classification or Types of Teaching and Learning Materials

There are many ways of classifying instructional materials. They may be perceived according to the levels of technology – low-level or high level technology materials. They may also be grouped according to the senses they stimulate – visual media, audio media and audio visual media, or classified as projected and non-projected media. They can be further classified as printed and non-printed media etc. In fact, there is no rigid form of classification.

Figure 1.1: Students learning with Ipad that provides multimedia resources

Slideshare.net

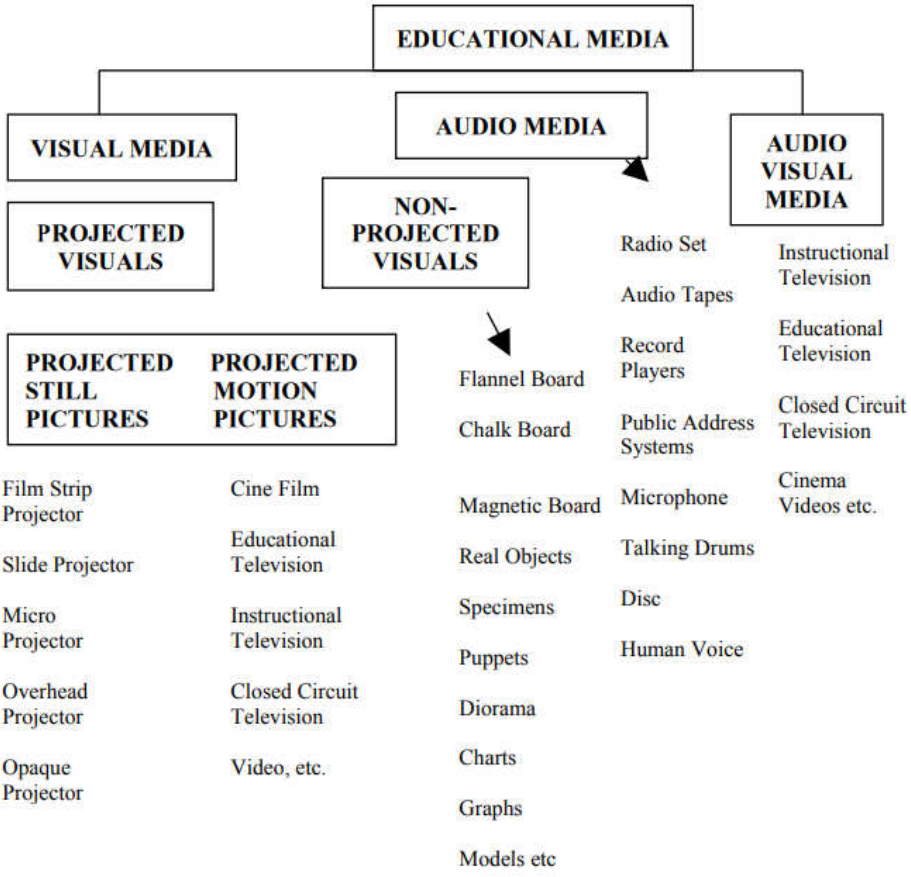
Ukoha (1996) in "Educational Media and Instruction" in B.A. Ogwo (Ed) **Curriculum Development and Educational Technology** has presented two good examples of ways in which educational media may beclassified.



The above table can be seen as classification according to printed and non-printed media. The diagram is self explaining - under printed media, you find books, handouts, journals, dictionaries, encyclopedia, newspapers, magazines. Under non-printed media, we find chalkboard, wall charts, flip charts, magnetic board, models etc. Electronic media is divided into Software and hardware. Under software we have computer programmes, films, slides, video films and audio cassettes etc and under hardware, we have overhead projector, Radio cassette recorders, television sets, Radio sets etc. These learning resources can be used to facilitate classroom activities and could also improve interaction between distance learners and their tutors. You will all agree with me that the peculiarities of distance learning necessitate the need to utilize these resources to connect learners and tutors across different geographical regions.

The second classification according to Ukoha (1996) is classification according to the senses they stimulate – visual media, audio media and audio visual media.

1.4 Classification of Educational Media by Human Senses



This classification also dwells on the projected and non-projected formats. Under projected still pictures we have film strip projector, slide projector etc while under projected motion pictures, we have instructional television, video etc. Under non-projected visuals; we have chalk board, flannel board, real objects, modelsetc.

Under audio media, we have radio sets, audio tapes, record players, public address systems, microphone, talking drums, human voice etc. While under audio visual, we have instructional television, video, cinema etc.

Ellington and Race (1993) also divided Educational Media into Visual, Audio and Audio Visual like this:

Different Groups of Educational Media

VISUAL			*AUDIO*	*AUDIO VISUAL*		
I	*Ii*	*iii*	*iv*	*v*	*vi*	*vii*
Printed and Duplicated Material	**Non-Projected Display Materials**	**Still Projected Display Materials**	**Audio Materials**	**Life Audio & Still Visual Materials**	**Video Materials**	**Computer Mediated Materials**
+ Handouts	+ Chalkboard displays	+ Overhead Projector	+ Radio Broadcasts	+Tape-slide Programmes	+Tape-Film Programme	+ Number counting and data processing packages.
+Assignment sheets	+Maker Board displays	+Transparencies and similar materials	+Audio discs	+Tape-Photographs Programme	+ Television broadcasts	+Substitute Tutor Packages
+ Individualized study materials	+Felt board displays	+ Slides	+ Audio- tapes (reel to reel, cassette, Discs).	+Filmstrips with sound	+ Video tape-recordings	+Substitute laboratory packages.
+ Resource materials for group exercises, books, programmed instruction etc.	+Hook and loop board displays	+ Filmstrips	+ Compact	+ Radio-vision programmes	+ Video-disc recordings	+ Data-base systems
	+ Magnetic board displays.	+ Microforms (Microfiche, Microfilm, Microdisc)		+ Tape-text Tape-model		
	+ Flipchart displays			+ Tape-realia, Tape-Microscope, slide, etc.		
	+ Charts-and-wall charts.					
	+ Posters					
	+ Photographics					
	+ Prints					
	+ Mobiles					
	+ Models					
	+ Diorama					
	+ Realia					

From the array of instructional materials listed, you can see the preponderate of media in education. The first step for any media student is to identify and classify the instructional materials. All other things will follows sequentially.

1.5 Some Functions of Media in Education

1. We are all used to the varieties of teacher-talk in class instruction, which involves only the sense of hearing i.e audio. This practice could be boring after a while. The use of instructional materials on the other hand calls into play the senses of sight and touch in addition to only the sense of hearing. The more the number of senses involved in the learning process, the more enduring the learning results. Remember the Chinese saying:

I hear, I forget
I see, I remember I do, I understand

So, we can conclude that instructional materials guarantee more effective hearing on the learner. In addition to merely hearing, also sees and does!

To corroborate the above Chinese statement, Kindler (1993) stated that people generally remember:

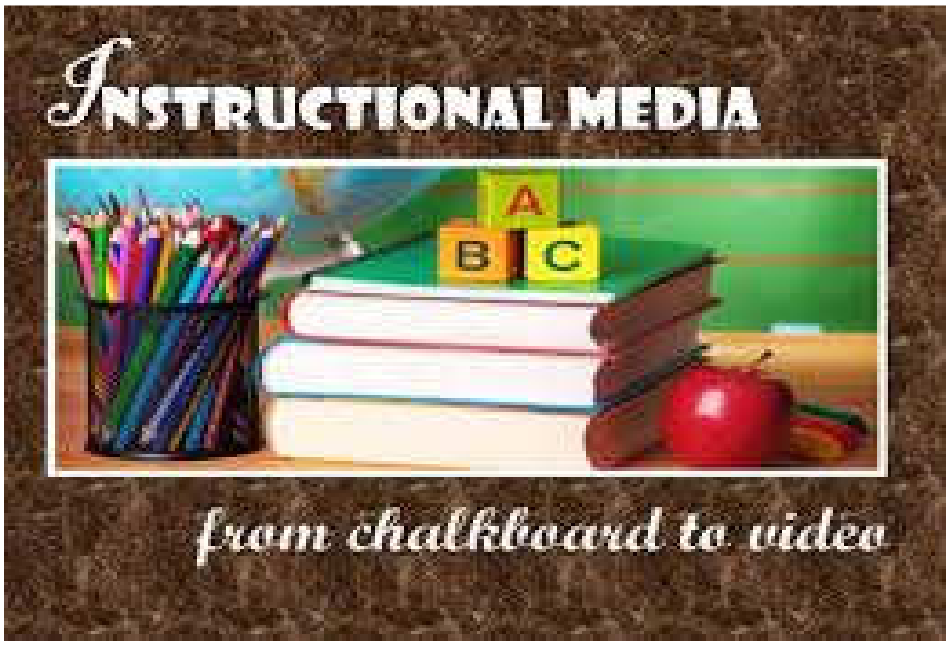
10% of what they read 20% of what they hear 30% of what they see
50% of what they hear and see 70% of what they say
90% of what they say as they do.

So, it is a time-tested truism that learning would be most effective when all the senses are involved – hearing, sight, smell, taste and touch. According to US Department of Education (2017), technological resources, especially instructional media can considered as powerful tools to transform learning environment to make learners more engaged in classroom activities. Instructional media can help affirm and advance relationships between educators and students, reinvent our approaches to learning and collaboration, shrink long-standing equity and accessibility gaps, and adapt learning experiences to meet the needs of diversecategories of students in the learning space. The electronic media are more appropriate to engage learners in open and distance setting, due to separation between students and tutors.

2. Instructional materials serve to concretize otherwise abstract concepts and ideas. They also help to describe matters using prompters or cues. For example, think of a Nigerian village teacher trying to teach the concept of 'SHIP' which the children had never seen before. If he describes the 'SHIP' using words only, what do you think will happen? But when he presents the film/video of a ship moving on the sea and shows the various compartments of a ship, the image of the abstract object in the minds of the children will become concretized.

3. Media can provide access to a process or technique. Think of the Engineers constructing a highway or building a bridge. If you are just passing by, you will never know the process of road construction. Think of watching a film that shows the processes. The experience will not be easily forgotten.

4. Instructional media help in magnifying or reducing objects for classroom use. By means of motion pictures or television, big objects or small objects can be brought into the classroom for closer examination.



5. Experience that may not otherwise be available are provided via media. Think of the Tsunami earthquakes, wars, flood. A video clip in all the examples given may transport a child from the unknown to the known.

6. With the use of instructional media, individualization of learning becomes a reality. Teachers and students can go at their own pace, rate and convenience. Video, audio cassettes and computer assisted learning have made this possible. You can record off the air some instructional programmes that can aid in learning, making use of audio and video cassette recorders. You can also buy pre-recorded audio, video tapes and compact discs etc.

7. Instructional media provide a common framework of experience to a large number of learners. This is what we call the democratization of learning or equalizing opportunities for all learners, whether you are in Delta or Maiduguri, the same telecast can be beamed to all at the same time provided all other things are favourable.

8. Instructional media gain and hold the attention of learners. A popular adage says that monotony kills interest and variety is the spice of life. You also remember that a picture speaks more than a thousand words! Pictures can be still or motionless or it can be moving as in television orfilms.

1.6 Summary

In this unit, we have studied the three different classifications of educational media. You have been exposed to the audio, visual and audio visual resources in education. We also studied some of the functions of the instructional media. For more effective learning to occur, all learners in the various levels of the nation's educational system should be provided, not with words or lectures only, but should be provided with the array of learning materials mentioned in this unit. These learning materials will make them see hear, touch, taste, describe, make, try and do!. Experiencing learning can be direct with real things or life situation e.g. through pictures, models, instructional television and instructional radio. In the next unit, we will be studying the four types of instructional television.

Self-Assessment Exercise(S)

1. Classify the media along the line of printed media and non-printed media giving at least five examples under printed media and fifteen examples under non-printed media.
2. Functions of media in education

1.7 References/Further Readings/Web Resources

Ayo Ojelabi (2000). *Essentials of Educational Technology.* Lagos: Raytel Communications Ltd.

Okwudiba Nnoli & Ibraheem Sulaiman (Ed). (2001). *Reassessing the Future of Education in Nigeria*.

Glover, I., Hepplestone, S., Parkin, H., Rodger, H., & Irwin, B. (2016). Pedagogy first: Realising technologyenhanced learning by focusing on teaching practice. *British Journal of Educational Technology*, 47(5), 993–1002.

Haelermans, C. (2017). Digital Tools in Education.In: *On Usage, Effects, and the Role of the Teacher*.Stockholm: SNS Förlag https://www.sns.se/aktuellt/digital-tools-in-education-on-usage-effects-and-therole-of-the-teacher.

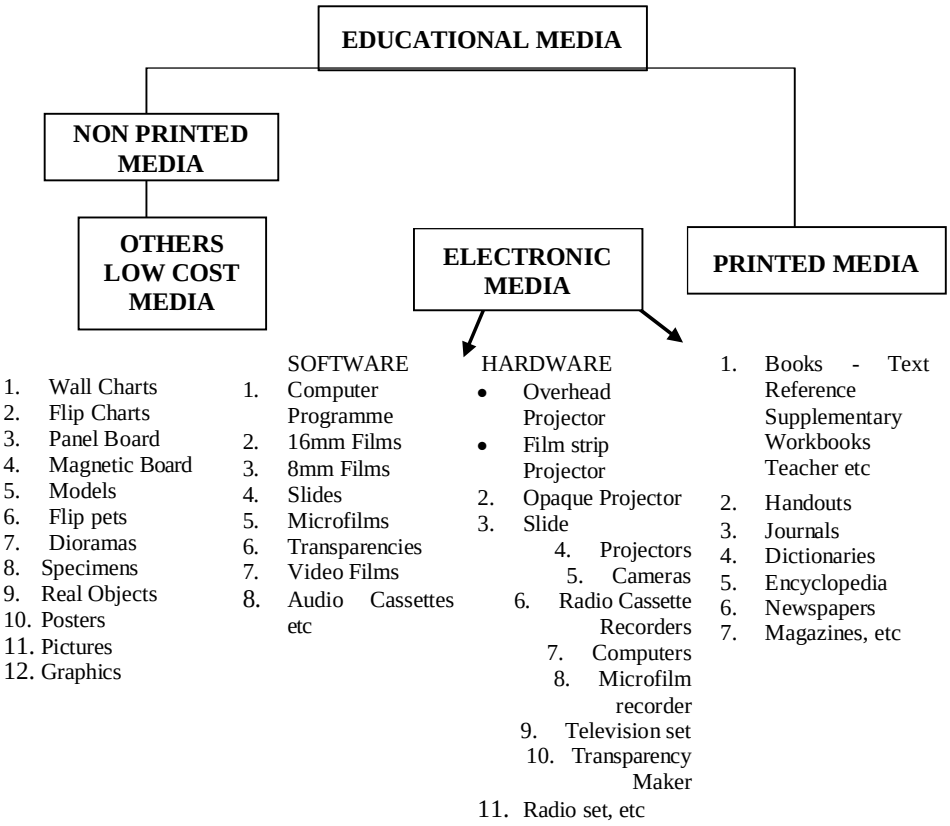
Håkansson, Lindqvist, M. (2015). Gaining and Sustaining TEL in a 1:1 laptop initiative: Possibilities and challenges for teachers and students. *Computers in the Schools*, 32(1), 35–62.

Heinich R.; Molenda M, & Rossell J. D. (1985).*Instructional Media and the New Technologies of Instruction*.John Wiley and Sons.

US Department of Education (2017).**Reimagining the Role of Technology in Education.http://tech.ed.gov**

1.8 Possible Answers to Self-Assessment Exercise(s)

1. Ukoha (1996) in "Educational Media and Instruction" in B.A. Ogwo (Ed). **Curriculum Development and Educational Technology** has presented two good examples of ways in which educational media may beclassified.



2 Media can provide access to a process or technique. Think of the Engineers constructing a highway or building a bridge. If you are just passing by, you will never know the process of road construction. Think of watching a film that shows the processes. The experience will not be easily forgotten. Instructional media help in magnifying or reducing objects for classroom use. By means of motion pictures or television, big objects or small objects can be brought into the classroom for closer examination.

UNIT 2 TYPES OF INSTRUCTIONALTELEVISION

Unit Structure

2.1 Introduction

In the last unit, you learnt about the role of media in instruction and the classification of media. You were informed about the print and the non-print media; you were also informed about the projected and non-projected media. Finally, you where introduced to the electronics media i.e. instructional television and instructional radio. In this unit, you will be introduced to the various types of instructional television. You will also be able to compare and contrast the various types of instructional television.

2.2 Intended Learning Outcomes

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

- define instructional television
- identify at least three types of instructional television.

2.3 Main Content

2.3.1 What is Instructional Television?

Teachers in all disciplines are rapidly taking advantage of audio-visual learning resources to engage learners in teaching-learning process. Kara (2008) noted that visual materials which are supported by audio and animations are more effective on student's learning, perception and synthesizing. The researcher concluded that scientific lessons should be developed and supported by visual and audio instructional media to draw students attention and therefore ensure that learning lasts longer, to reflect science nature and accelerate learning. An example of such instructional media is Instructional Television (ITV).Simply put instructional television (ITV) includes those broadcasts relayed directly to an organized program of formal instruction and are directed at specified learners: to classrooms (schools, colleges and universities), and to individual viewers (usually adult education). Instructional Television (ITV) can also refer to any planned used of video programmes to meet specific instructional goals. According to Dike (2012) broadcast media like television as educational delivery tool possesses the capabilities to distribute signal to diverse learners who are located at different places at the same time. This makes it quite suitable for open and distance learning across the globe.

Figure 1.2: Students watching instructional television in the classroom ajol.info

The four major points to note in instructional television are:

1. Teacher Guided – A teacher leads viewer through learning experiences.
2. Systematic – broadcasts are related to course of study or syllabus with well behaivoural objectives and planned learning experiences.
3. Ordered and Sequential – broadcasts are presented at regular intervals in sequence; one builds upon another. The sequences or the ordered system and into sub-system helps the learner to achieve better.
4. Integrated – broadcasts are related to other learning experiences such as laboratory practical, reading, discussion, writingetc.

2.3.2 Type of Instructional Television: Direct Classroom Teaching

Research had shown that educational television is a great aid in students' learning and academic achievement at different levels of education. Educational videos can engage student interest with dramatization, animation, and application portions, which are covered in detail during class discussions and class activities that would ensure comprehension. Findings(Gustilo, L.E. et al (2015) revealed that educational television stimulates class discussion, reinforces lectures and reading, provides a common base of knowledge among students, and helps teachers teach more effectively. .Instructional television programmes can be used for direct classroom teaching in various public school systems and universities. This can also be referred to as Total Television teaching. In this method, the television teacher is the only teacher. Slight assistance can be given by a 'live' teacher.

Ubongo.org
Direct Television with slight assistance from teacher

At times there is no teacher in the classroom. Direct classroom teaching can be used to overcome chronic shortages of specialist staff especially for science or mathematics teaching. By using the skills of experienced and able specialist teachers through television programmes, all students in the whole country can benefit. However, teachers' handbooks and students' workbooks must accompany the programmes for follow up activities. Furthermore, instructional television programmes can be duplicated for later playback on the schools own video cassette recorder. The school's media officer can dub these conveniently. This means that the librarian should have a monthly catalogue describing the programmes available from the broadcasting station.

When Television is used for direct teaching, the core content i.e. the core curriculum and the method of teaching are embodied in the programmes themselves. As stated earlier, there could be a need for adult supervision or 'monitors'. The adult supervisor has no hand in the content or method by which the content will be taught. The programmes can originate from an organization like the National Open University of Nigeria; The National Teachers' Institute, the Educational Technology Centre and the Federal Ministry of Education. Direct television teaching has been used in ITV in Ivory Coast. We will be discussing this project in Unit 4. At the Obafemi Awolowo University, Direct Teaching was used for teaching the General Study students using instructional television. Students learnt through two giant television sets fixed inside a big lecture hall. They were assisted after each programme by education technologists to enable them work on their own.

2.3.3 Type of Instructional Television: Supplementary Enrichment Classroom Teaching

The major role of television has been as a supplement to regular instruction in the classroom. Enrichment is synonymous with supplementary, hence we have supplementary – Enrichment classroom teaching. Enrichment means an addition to or a reinforcement of something that the teacher is already trying to do. The general aim is to use television to reinforce the content, skills or attitudes that teachers are already committed to impart to their students. The implication is that a topic can be taught or learnt without the television programme being seen, but viewing the instructional television programme may increase the chance of learning being more effective and more thorough. The first example of this that comes readily to mind was the instructional television programmes generated at the defunct National Educational Technology Centre Kaduna. N.E.T.C Programmes were designed not to teach directly, but to enrich the educational experiences of the students. Examples abound in the United Kingdom, where most schools are using this type of programmes. Facilities abound in the schools to record the programmes off the air or buy pre-recorded programmes from the BBC for students' viewing at the right time to fit in with the lesson of theday.

afronline.org

You already know that a developing country like Nigeria has a centralised curricula so television programmes are used as a support to the standard curriculum, which is normally determined without any consideration of how television might be integrated with the curriculum. Programme designers therefore have to take the curriculum as given,

and design their programmes around it.

The important point here is that enrichment proprgrammes are closely integrated by the teacher with other teaching materials. Only those parts of the television programmes that are relevant to the teaching task need be used. Ideally, it means that when a syllabus is being planned, the likely availability of suitable television materials in taken into account before the teaching programme for the term in year is finalized. Such advanced planning requires access to television material before teaching begins. The teacher, in essence, should study the curriculum and see how television programmes could be integrated with the curriculum in order that television could be closely integrated with radio, textbooks, direct teaching and other socializing activities. At any rate, the media Resource Officer of the school should work hard in globe with the teachers in order for the teachers to know the resources to enrich their teachings with.

2.4 Type of Instructional Television: Non-Formal - Pre School Instruction

Some instructional programmes are intended for viewing by youngsters at home. These youngsters are too young to go to school. The programmes are aimed at children aged three to five. The most famous of example of this is “Sesame Street”. The main aim of “Sesame Street” was to use popular television techniques to promote the intellectual and cultural growth of pre-scholars. The effectiveness of “Sesame Street” has been confirmed worldwide. The series has demonstrated that making programmes entertaining need not preclude teaching. ‘Sesame Street’ has been evaluated over the years and it was discovered that all children who were tested showed learning gains. The evaluation also showed that it was important to encourage viewing whether at home, in day-care centers, or in schools, because children who viewed most learned most. Sesame Street has been used in many languages other than English to help children understand skills, moral scientific matters.

The children’s programmes were designed to be viewed at home or at nursery school and were intended to stand alone without support materials. There was a good deal of deliberate repetition from programme to programme. ‘Sesame Street’ programmes have clearly defined behavioural objectives, a publicly stated social purpose, a deliberate use of commercial television techniques for direct teaching, extensive formative research and summative evaluation.

Children’s programming is an important “socialising” agent in that it presents models of social behaviour to the children. Heavy emphasis is placed on liberal valves like caring for others who are less privileged

and doing good. The established valves and mores of a society are emphasized so that children can grow up copying good moral behaviour.

2.5 Type of Instructional Television: Formal Adult Education

The use of instructional television for transmitting formal adult education has been limited to credit courses over local broadcasting facilities by some Open and distance learning institutions across the world. Recorded Video and audio cassettes had become part of the study materials for the National Open University of Nigeria students. Let me give you two examples of how instructional television can be an added advantage in distance learning instructions.

The first distance learning institution I will give as an example is the United Kingdom Open University UKDU. The UKDU has successfully integrated the used of television programmes with study materials to the best advantage of the students. The UKDU was established in 1969 and provides degree level and continuing education courses for adults on a part-time basis. Most students are in employment and students study through a mixture of specially designed correspondence texts (which provides the core teaching material), television broadcasts, audio cassettes, video cassettes and face to face tutoring in the study centers. Without instructional television, it is very doubtful that the UKDU would have succeeded or prospered. The UKDU transmits nationally, thirty-five hours a week television over a thirty-two-week academic year, to over 89,000 students! UKDU products 240 new television programmes a year with a staff strength of about sixtyproducers.

The second example I will give you is the Chinese Central Television University (CCTU). The CCTU produces and transmits over thirty hours of new programming each week to 300,000 students using a total of ten producers! Programmes are mainly pre-recorded lectures, written our on a blackboard in the style of lectures at a conventional university. A typical lecture lasts for fifty minutes, followed by a short break, then another lecture. It was designed to cover the wholecurriculum.

From the two examples given, you can see that instructional television broadcasting, if well integrated with prints and other materials can be highly effective.

2.6 Summary

In this unit, you have been exposed to four types of instructional television viz. direct classroom teaching. Supplementary-enrichment, instructional television; Pre-school instructional television; and formal

adult education. Instructional television. Apart from educational programmes, there are entertainment programmes on television like "cockcrow at Dawn" or "Super Story". They can also be didactic.

The unit has discussed the different types of instructional television. It has highlighted the differences between instructional television programmes designed for various groups; from direct teaching using instructional television, to enrichment teaching, to the informal pre-school learning and the formal adult learning. It also mentioned case studies of countries that have used all the identified media to enhance effective learning. In the next unit, we shall focus on utilization of instructional television.

Self-Assessment Exercise(s) 1

1. Describe briefly the direct classroom teaching using instructional television.
2. Discuss how this method of instructional delivery can be useful in open and distance learning.

2.7 References/Further Readings/Web Resources

Anthony Bares (1984). *Broadcasting in Education – an Evaluation Constable*, London.

G. Chester *et al* (1978). *Television and Radio*. Englewood Cliffs, N: Prentice-hall Inc. J. 07632.

Gustilo, L.E. et al (2015). Effects of Knowledge Channel Videos on the Achievement of Students in Various Learning Environments. *Advanced Science Letters 21*(7):2276-2280DOI:10.1166/asl.2015. 6310

Dike, A. (2012). *A Textbook on Educational Technology*, Owerri, Totan Publishers.NBC National Broadcasting Commission, retrieved from www,nbc.gov.org. on October 2, 2012.

2.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

1. Research had shown that educational television is a great aid in students' learning and academic achievement at different levels of education. Educational videos can engage student interest with dramatization, animation, and application portions, which are covered in detail during class discussions and class activities that would ensure comprehension. Findings(Gustilo, L.E. et al (2015) revealed that educational television stimulates class discussion, reinforces lectures and reading, provides a common base of knowledge among students, and helps teachers teach more effectively. .

2. Instructional television programmes can be used for direct classroom teaching in various public school systems and universities, especially for ODL. This can also be referred to as Total Television teaching. In this method, the television teacher is the only teacher. Slight assistance can be given by a 'live' teacher. It is appropriate for ODL because it can reach many students across geographical locations

UNIT 3 STRATEGIC ROLES OF INSTRUCTIONAL TELEVISION

Unit Structure

3.1 Introduction

In the last unit, you learnt about the different types of instructional television programmes. You are now conversant with instructional television being used for direct teaching; instructional television being used for supplement-enrichment teaching; instructional television being used for informal pre-school learning and finally instructional television being used in formal adult education. In this unit, you will be introduced to the strategic roles of instructional television programmes.

3.2 Intended Learning Outcomes

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

- describe some reasons for setting up television service
- categorize the strategic roles of instructional television in a formal education system
- categorise the strategic roles of instructional television in a non-formal education system.

3.3 Main Content

3.3.1 Some Reasons for Setting up Television Service

Educational purposes are rarely the main reasons for introducing a television service.
According to Karz and Weddel (1978)

"There is no reason to assume that the introduction of television is automatically equated with development by the leaders of new and developing nations. Typically, it is introduced for a variety of other purposes, as an opiate of the people, as a symbol of nationhood, as a projector of the image of leadership, as part of a national celebration, to transmit sporting event, or to meet with the cosmopolitan expectations of big-city dwellers demanding to be entertained in the cosmopolitan manner" (Karz and Weddell, 1978).

However, whatever the visual reasons for setting of a television service, it is not difficult to find valid justification for using television for educational purposes, once it is set up. According to Mahesh, Aabid and Raslana (2013) television is an educational box, a learning imitator, and a medium for persuasive communications by individual. Instructional television has been used for a wide variety of educational purposes. It has been used to reduce illiteracy, poverty and disease. Studies suggested that well designed television programmes stimulate and improve students' cognitive learning skill (Bryson, 2017). Several studies have stressed the relevance of television for learning. For example, Hassan and Daniyal (2013) conducted a study on the influence of educational television programs on students in city of Bahawalpur, Pakistan, the study proved that students do watch television and that it has a positive influence the students. Nwagbara and Nwammuo (2013) researched the impact of instructional television on the academic performance of senior secondary students in Anambra State, Nigeria. The study revealed that television programmes did developed students academically.More importantly, it is being used to educate those who otherwise would have received no education at all. It is widely used to promote democratic values of good governance. In this segment, we will concern ourselves with two broad reasons for using instructional television ineducation.

3.4 Improving the Quality of Existing Formal Education Services

The first major reason for using instructional television is that it improves the quality of existing educational services. The focus here is on the use of instructional television for improvement within the formal education system. The target groups are those already in full-time education at school or college. How does instructional television improve the quality of existing educational services? Let's take a look at the tablebelow.

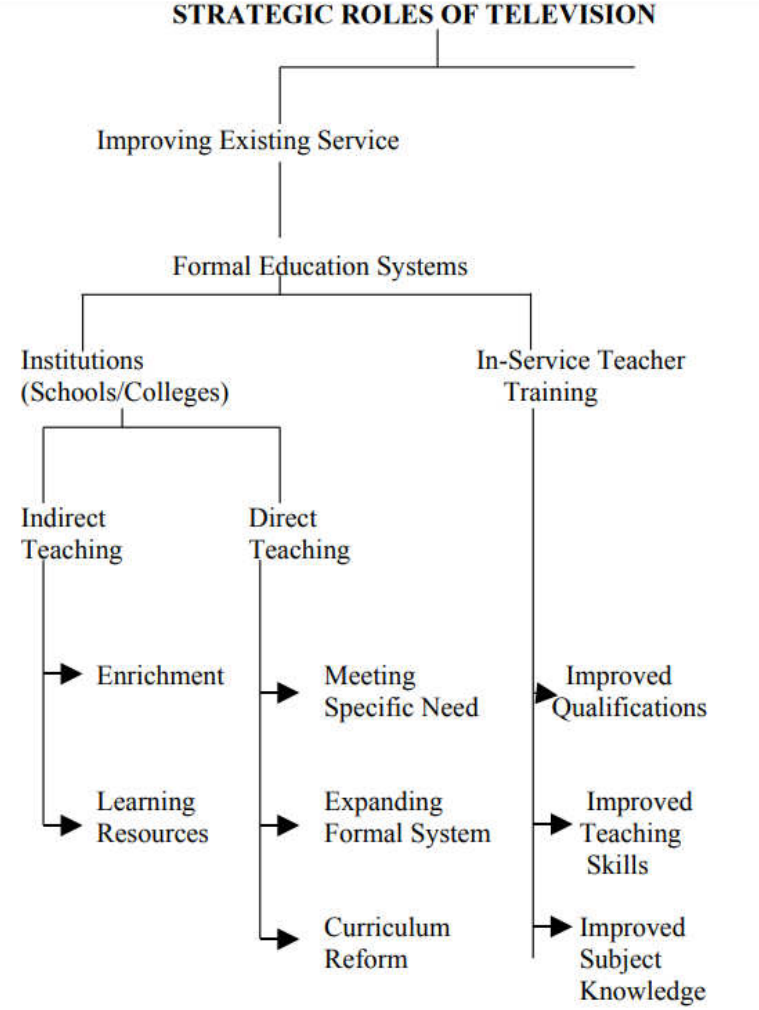


Table 1: Strategic Roles of Television and Radio

a) The above chart describes the roles assigned to instructional television. Instructional television is not designed to replace the teacher, rather it should be seen as an extra resource on which the schools can draw from instructional television is thus seen as being primarily intended for improving the quality of the exiting educational service. It is intended as a support to existing basic education services. In unit 2, remember we discussed enrichment and direct teaching. In other words, we are emphasizing here that instructional television can be used for indirect teaching like enrichment programmes and learning resources.We mean that instructional television can be considered learning resource in that it can offer teachers, pupils and students teaching materials which would not be easily accessible to them in otherways.Role of television in distance education is prominent. Most of the educational content is conveyed to learners through media e.g. print, television, radio etc. But "Television play role to deliver lessons to distance learners who has no regular interaction with a formal teacher in preparation of assessment" (Chute, Thompson,
and Hancock, 2009).

b) Instructional television provides learners with access to knowledge and information in a more direct and concrete forms. Television can provide physical models, professionally designed graphics and animation, foreign languages spoken in context by native speakers, interviews with national leaders, interviews with diverse audiences in significant events, it brings immediate natural disasters such as earthquakes, volcanoes, Tsunamis etc., which can be brought into the classroom.

c) Instructional television can also perform the strategic roles of direct teaching in meeting specific needs. Temporary deficiencies can occur in a particular school due to the loss of specialist teachers through sickness, transfer or retirement. Instructional television can then allow the scarce learning resources to be made available for direct teaching. In this case, teachers' notes that provide reinforcement and further explanation of the subject material are also available for clear follow up activities. It enables the learner to get a direct touch with the absentee teacher.

Instructional television can be used in expanding the formal school system. It has been used in some countries to enable pupils, who would otherwise have had no formal schooling beyond a certain age, to continue with their schooling. It was used in Mexico for their telesecondarie. Telesecondarie is an example of direct teaching by television. 'Telesecondarie' are small secondary schools of less than 100 pupils, mostly in rural areas heavily dependent on televised instruction. Mostly transmissions are live, being made up of about ninety lessons of twenty minutes each covering altogether the various subjects of the curriculum. Broadcasts run from 7:45 – 14:00 hours every weekday, while on Saturday morning, most of the time is reserved for broadcast to 'teleula' teachers. Each class is one hour while the balance of forty minutes is used for preparatory and follow up activities. It was discovered that pupils in conventional as well as telesoundarie schools performed equally.

d) Lastly, instructional television can be used for in-service-training of teachers. That no nation can rise above the level of its teachers is a well-known axiom. So, teachers are expected to be at levels far above those they are teaching. Instructional television has been used in several countries to assist teachers to improve academically, without having to give up working while studying further. The National Teacher's Institute in Kaduna had been planning to use Instructional television for the training and retraining of teachers. In Algeria, however, in order to expand primary education to enable all children of the target age to receive full time education, large numbers of teachers without any

proper professional training were trained using instructional television.

Self-Assessment Exercise(s) 1

1.	Outline some reasons for setting up television service
2.	Categorize the strategic roles of instructional television in a formal education system

e) Instructional television have been used to help teachers develop their professional skills. The defunct National Educational Technology Centre in Kaduna once designed a programme called “Audio Visual Aids for Teachers”. Letters commending the programme were received from teachers because the programme had helped in their professional development.

f) Television has also helped teachers to improve their teaching of specific subject areas. Mathematics and Science are the two common subject areas always targeted for improvement. A vivid example is the Ivory Coast TV project, which has produced modern mathematics programmes aimed specifically atteachers.

In summary, instructional television can be used under formal education system for:

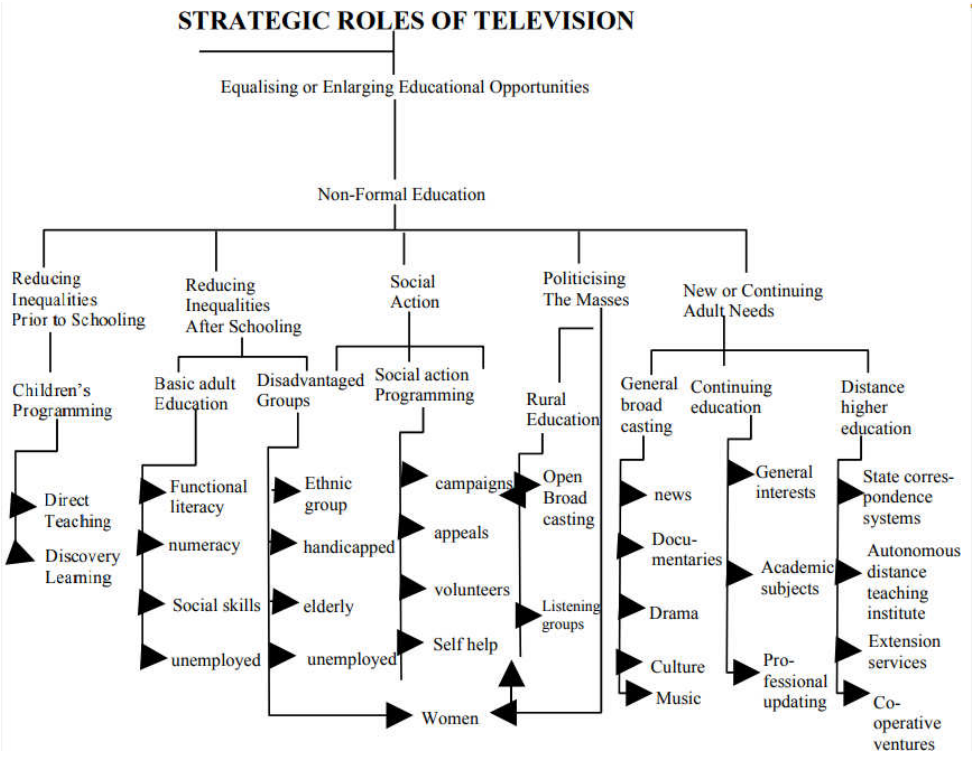
(1) Direct teaching, (2) Enriching conventional teaching, (3) As a unique learning resource, (4) Expanding opportunities for in-service teacher training and, (5) Expanding the formal school system.

3.5 Equalizing or Enlarging Educational Opportunities in Non-Formal Education

Another reason for using instructional television is in a non-formal educational system. It equalizes and enlarges educational opportunities, such that people are not necessarily restricted to the formal setting before getting access to education .TV graphically brings happenings right into living rooms, complete with color, sound, time sequences, and even to some degree, the associated "feelings. So, Effective use of ETV can make learning process easy & interesting for learners. With the help of ETV programme, a learner can learn about a topic with in a fixed time. During a programme, ETV teacher tries to teach in such a way that he tries to explain most important topics within a limited time. It has been observed that, ETV Programs are not retrievable for learners, so they attend lectures attentively (Akter, 2011).

In a non-formal setting, educational opportunities can be provided

through part-time study for those outside the normal age range or geographical reach of the basic school system. Non-formal education is concerned with improving the personal, social and work life of individuals. Non-formal education aims to help individuals make practical changes in their daily life and personal development in terms of their own goals and wishes. It is more or less learner centred than teacher or subject centred. So, a learner in a non-formal educational system needs to put in more personal efforts to achieve his goals. Once again, let us take a look at the tablebelow.



From the chart, there are five broad purposes in non-formal education to which instructional television can be useful.

a) Reducing inequalities existing prior to entry to formal educational system. There is strong evidence from psychological research that the fifty five years of life – before formal schooling begins – are crucial for the intellectual, emotional and social development of a child. If this is so, pre-school programmers are designed using instructional television to develop them intellectually, emotionally and socially.

b) Reducing inadequacies subsequent to the formal education system. Instructional television can cater for those that left school with no educational qualification or school drop outs. In Nigeria, there are many adults that can neither read nor write. Instructional television can make these adults to be able to read and write, and improve their

perception of life generally.

c) Instructional television can help in training or educating people to know their rights, to take direct action themselves to improve their own situation in life, and to take advantage of existing services.

d) Instructional television can be used to reach a wide range of target audience in the non-formal education area in order to sensitize and conscientize them politically. It can be used for rural education etc.

e) Working adults need to keep up with new development in their trade or business and to develop new skills. Television can impart knowledge of trade, business and helps in developing new skills.

3.6 Summary

The Unit is devoted to the strategic roles of instructional television in a formal and a non-formal educational system. In a formal educational system, instructional television is used in improving existing services while in an informal educational system, instructional television can be deployed for equalizing educational opportunities. The unit also highlighted how developed countries, Mexico, USA, U. K etc. Although instructional television cannot solve all the educational problems in any given country, its use will undoubtedly enrich learning, provide more opportunities for learning during formal and non-formal system of education and makes all round education more meaningful and realistic. Research studies indicate that the use of instructional television has fast tracked dissemination of learning materials more than ever before. In the next unit, we will together have a glimpse of the effectiveness of instructional television in some countries of the world.

3.7 References/Further Readings/Web Resources

Akter, N. (2011). Evaluation of Educational Television Programs for Distance Learning The Turkish Online *Journal of Educational Technology* –October 2011, volume 10 Issue 4

Bates A. W. (1984). *Broadcasting in Education: An Evaluation.* London: Constable Press.

Bryson, C. (2017). Seven Reasons why TV can be good for children. television is not necessarily a bad thing. Thought Co. Learn Something New Every Day. Retrieved on September 7, 2017from https://www.thoughtco

Chute, A., Thompson, M.& Hancock, B.(2009). *Handbook of Distance*

Learning. New York: McGraw-Hill.

Heinich, R.; Molenda M. & Rossel J. D. (1985).*Instructional Media and the New Technologies of Instruction*. John Wiley & Son Inc.

C. A. Ogunmilade (1984). *Media in Education*.University of Ife Press.

Katz, E. & Weddell, G. (1978).*Broadcasting in the Third World*. London: Macmillan Press Ltd.

Mahesh C. G., Aabid Nabi, A. & Raslana, R. (2013). Role of television in child. *Journal of Mass Communication Journalism*, 3(3),15.

Nwagbara, G. U. & Nwammuo, A. N. (2013). Instructional television programmes and academic performance of senior secondary school students in Anambra State, Nigeria. *African Journal Online* (AJOL) *African Research Review*, 7(2), 329–349

3.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

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2. Instructional television provides learners with access to knowledge and information in a more direct and concrete forms. Television can provide physical models, professionally designed graphics and animation, foreign languages spoken in context by native speakers, interviews with national leaders, interviews with diverse audiences in significant events, it brings immediate natural disasters such as earthquakes, volcanoes, Tsunamis etc., which can be brought into the classroom.

Instructional television can also perform the strategic roles of direct teaching in meeting specific needs. Temporary deficiencies can occur in a particular school due to the loss of specialist teachers through sickness, transfer or retirement

UNIT 4 EFFECTIVENESS OF INSTRUCTIONAL TELEVISION - CASE STUDIES

Unit Structure

4.1 Introduction

In the previous unit, we learnt of the strategic roles instructional television can play in a formal and a non-formal educational system. In a formal educational system, instructional television is used in improving existing educational delivery services while in an information by education system, instructional television can be utilized for equalizing educational opportunities. In this unit, we will devote our energy at studying some case studies in some countries they have used instructional television to improve the lot of their citizens.

4.2 Intended Learning Outcomes

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

- analyse how United Kingdom has made instructional television effective
- describe how instructional television was used in Ivory Coast
- describe how instructional television was used in the U.S.A.

4.3 Main Content

4.3.1 Effectiveness of Instructional Television in the United Kingdom-Supplementary Enrichment Programmes

In the United Kingdom, the experimental period of instructional television broadcasting is over. Television is now firmly established as a feature of the educational scene. The British Broadcasting Corporation (BBC) is a public corporation set up in 1927 by the Royal Charter to provide a public service of broadcasting. The BBC received its charger because of the great value placed on broadcasting services as a means of disseminating information, education and entertainment. Education is thus one of the three great chapter responsibilities of the BBC. School broadcasting department provide services to children and students in schools of all kinds and to adults both in colleges and other institutions of further education and in their homes. The BBC programmes for schools are mostly supplementary environment programmes aimed at providing experience within the classroom, that are not readily available from other sources; they aim at widening children's horizons, at stimulating their imagination and creativity, at encouraging their interests in the world they live in, its art and literature, its past and present, its science and technology. The programmes often help to develop new approaches to teaching by exemplifying the most up-to-date ideas about curriculum and teaching methods. The range of teachers' notes and pupils' workbooks that accompany most educational broadcast series is intended, to encourage and facilitate preparation and follow up by providing supplementary information in word and picture, and suggesting activities which might exploit more fully the material of the broadcast.

To make instructional television effective, the BBC set up the School Broadcasting Council for the United Kingdom (SBCUK). The SBCUK obtains evidence about classroom use and effectiveness of schools broadcasts in two main ways, from its own staff of full-time education officers (field officers) and from panels of teachers using the programmes with their pupils. Evaluative reports from the Council's Education Officers following their visits to classrooms to see and hear broadcasts with teachers and children, give the Council and the BBC vivid pictures in some depth of the response to programme in the particular schools they visit. They also describe the contribution made by the accompanying publications and note the views of the teacher on the particular programme viewed. The reports also give producers information about how their broadcasts were received. The reports will also note whether a school has a big or a small population, whether the children were receiving a broadcast of good quality, without my

technical hindrances that might mar their viewing. The teachers'comments to the education officers about the effectiveness of a particular broadcast are of considerable value to the producers.

Most importantly, the following are the steps taken by the SBCUK to make their programmes effective.

1. **Annual Statistical Surveys:** The Council's Research Unit conducts annual surveys to know how many schools are equipped to receive television broadcasts. From this survey, it was discovered that 99% of secondary schools and 95% of primary schools had colour television sets. Of the remaining 1% of secondary schools, ½ % had a black and white set only and ½% had no set at all, while of the remaining 5% of Primary Schools, 3% had a black and white set only and 2% had no set atall.

Also, about 99% of secondary schools had video recorders and about 65% of Primary school had video recorders. (SBCUK – Survey of viewing in U.K Schools Annual Report 1984 – 85.

2. **Teachers Meetings:** Before the production of a new programme, there will be the meetings of teachers. These meeting provide for producers and education officers valuable exchange of views with teachers who operate varied schemes of work and teach children of different backgrounds and abilities.

3. **Pre-Testing of Programmes:** Series are pre-tested for formative evaluation. The formative evaluation, made possible by very close collaboration between the production team and the education officers allows for changes of approach and content if needbe.

4. **Post-Testing of Programmes:** Series are pos-tested for validation of earlier testing.

5. **Teachers' Report Cards:** Panels of teachers are sent pre-paid report cards to be returned directly to producers. The cards are called "Feedback BBC School TV".

6. **Unsolicited Letters from Teachers:** Many comments in praise or criticism of the programmes being used are sent to the Council by teachers.

7. Children usually send in their writings either in poetry or prose.

8. **Advance Information and Publicity to Schools:** Full advance information about school broadcasts and publications is essential if

teachers are to be able to integrate broadcast materials effectively in their curriculum plans and time table arrangements. Teachers obtain sufficient copies of the accompanying publications and ensure that adequate equipment is available for reception, recording and play back. The Council provides information to schools, colleges and teachers training institutions on time.

9. Teacher's Training: A broadcast is only as effective as the used that is made of it in the classroom. The role of the teacher is crucial. Apart from teachers' meetings organized by the education officer. The Council, on behalf of the BBC, offers support and assistance for the study of school broadcasting in the in-service training and education of teacher's.

The Council also operates a loan service of recorded school broadcasts and other resume material for use in teacher training and for use by the teachers for that student.

4.4 Effectiveness of Instructional Television in Cote D'ivoire– Ivory Coast - Direct Teaching using Instructional Television

The Ivory Coast is a West African Country of some 7 million people. The country inherited and educational system from France that was ill-adapted to national needs with the effect that only 57% of the children of Primary school age were served by the educational system. In 1961, the government decided to reform the structure and content of the system with help from France and UNESCO. Educational television was chosen as the instrument of reform. According to Hawkridge and Robinson(1982):

"Educational television offered some promise of greater unification of educational provision, of integration of different subjects, of bringing to large numbers of children the teaching of specialized teachers with high qualifications, of upgrading the work of classroom teachers through using television for regular courses of teacher training and of increasing motivation among both students and teachers".

In 1971, broadcasting began on a national basis, but only to 447 classes with were provided with television receivers. By 1979/80, 15,635 classes representing 84% of the students belonged to the project. Since the villages do not have electricity, many receivers are operated with batteries, some with solar panels for recharging. All sets are located in schools and each classroom has its own set printed teachers' guides and students' texts are prepared in Bovake to support the television series. Teachers in the project also participated in in-service training. Television programmes broadcast for twenty minutes in the evening for teachers are intended to help them prepare for the broadcast of the

following day for their students. Teachers in classrooms within the project are expected to prepare their students for the broadcast; teachers watch their students' reactions, and question them immediately afterwards. Then for a further 30 minutes or so, students do the exercises in their workbooks.

The project was evaluated by the Evaluation service, in collaboration with a team of researchers from the Laboratory of Experimental Pedagogy, of the Belgian University of Liege. Among the findings were that the broadcast were too fast in pace and too overloaded with information. All the same, there was a strong view that educational television has succeeded in introducing new methods and attitudes and that it has provided far greater equal educational opportunities. Prior to the project, urban students had great advantages over the rural students because urban teachers were better qualified. Still, according to Hawkridge and Roinson (1982),

"Dara from the studies of the Belgian team show that the range of differences in standard between the best and the poorest television schools is small when measured by students achievement on tests. Some of the rural school are in fact among the bestnow".

Self-Assessment Exercise 1

1.	Describe six ways by which instructional television was made effective in the United Kingdom.
2.	Explain how instructional television was used in ivory coast.

4.5 Effectiveness of Television in the U.S.A.: Children's Television Workshop (CTW)

Children's Television Workshop (CTW) is known internationally for its series called "Sesame Street". The CTW was established in 1968. The effectiveness of "Sesame Street" has been confirmed worldwide. The series demonstrate that making entertainment programmes does not preclude teaching. The overall impact of "Sesame Street" was evaluated over the years by an independent group called the Educational Testing Service. All children who were tested showed learning gains.

What makes 'Sesame Street' effective?

The system approach to programme production was used by System approach, we mean the step by step approach in teaching viz.

4.3.1 Analysing the target audience,
4.3.2 Stating the objectives,

4.3.3 Selecting the media you will make use of,
4.3.4 Using the media,
4.3.5 Requiring students' responses and,
4.3.6 Evaluating the project. Let us see how the system approach was used effectively in the development, transmission, utilization and evaluation of "Sesame Street".

1. Experts from outside and inside the production company conduct a needs analysis and list out detailed behavioural objectives that are linked to the definition of the education problem to etackled.

2. Producers and other production staff are hired for their proven creative skills and that willingness to work with researchers.

3. Once objectives are clear, producers begin to develop the production format around, which the show will be built using content experts and researchers to obtain feedback about initial plans.

4. The preliminary production phase begins during which the researchers asses the comprehensibility and appeal of segments to viewer populations (children) and also test their acceptability to teachers.

5. By way of evaluation, the researchers measure the degree of concentration the children exhibit towards the filmed segments for rejection or modification of those segments failing to hold the children's attention by using the distraction method.

6. The researchers also administer tests of comprehension. The segments that do not cause short term comprehension are also rejected or modified.

7. The researchers then discuss their findings about which features to modify or repeat. There is always a strong bond between the researchers and producers to knowing the best segments to be transmitted to the children.

4.6 Summary

In this unit, we have looked at how instructional television is effective in the United Kingdom, in Ivory Coast and in the U.S.A. the unit has exposed us to the fact that instructional television, if well used, enriches teaching like in the United Kingdom's given example; it can be used for direct teaching as is the case of Ivory Coast and it can be used for Pre-scholars as is the case with the Children's Television Workshop of the U.S.A. which has produced the world-acclaimed "Sesame Street".

The unit has demonstrated that instructional television can be used effectively to teach students all over the world. The case studies, showing the impact of instructional television in the developed as well as the developing countries of the world depict that everybody can gain from it.

4.7 References/Further Readings/Web Resources

Cook, T. D. & Curtin, T. R. (1985). "Evaluating the CTW Model for Producing Educational Television" *Journal of Educational Communication and Technology Volume 33, No. 2,* Pp. 91 – 112.

Hawkridge D. & Robinson, J. (1982).*Organizing Educational Broadcasting.*London: Croom Helm.

Fawdry, Kenneth. "Everything but Alf Garnett – A Personal View of BBC School Broadcasting". London:BBC

Briggs, Asa (1965). *"The History of Broadcasting in the United Kingdom"* London: Oxford University Press.

Bates, A. N. (1984).*"Broadcasting in Education"*.London: Constable Press.

Bates, T. (1977). "The Conference: Rationale and Significance" In: *Evaluating ETV and Radio (*Ed.). Bases and Robinson. Milton Keynes:OUP.

The School Broadcasting Council for the United Kingdom (1986). "Survey of Viewing in U.K. Schools Annual Report 1984 – 85". London: BBC.

4.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

In the United Kingdom, the experimental period of instructional television broadcasting is over. Television is now firmly established as a feature of the educational scene. The British Broadcasting Corporation (BBC) is a public corporation set up in 1927 by the Royal Charter to provide a public service of broadcasting. The BBC received its charger because of the great value placed on broadcasting services as a means of disseminating information, education and entertainment. Education is thus one of the three great chapter responsibilities of the BBC. School broadcasting department provide services to children and students in schools of all kinds and to adults both in colleges and other institutions of further education and in their homes.

In 1971, broadcasting began on a national basis, but only to 447 classes with were provided with television receivers. By 1979/80, 15,635 classes representing 84% of the students belonged to the project. Since the villages do not have electricity, many receivers are operated with batteries, some with solar panels for recharging. All sets are located in schools and each classroom has its own set printed teachers' guides and students' texts are prepared in Bovake to support the television series. Teachers in the project also participated in in-service training. Television programmes broadcast for twenty minutes in the evening for teachers are intended to help them prepare for the broadcast of the following day for their students. Teachers in classrooms within the project are expected to prepare their students for the broadcast; teachers watch their students' reactions, and question them immediately afterwards. Then for a further 30 minutes or so, students do the exercises in their workbooks.

UNIT 5 INTRODUCTION TO THE PRODUCTION OF INSTRUCTIONAL TELEVISIONPROGRAMMES

Unit Structure

5.1 Introduction

In the last unit, we studied how instructional television was made effective in three countries. The countries are the United Kingdom, Ivory Coast and the United States of America. In this Unit, we shall look at the advantages and limitations of instructional television. We shall also study the television team viz the production staff and the production crew.

5.2 Intended Learning Outcomes

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

- state the advantages and disadvantages of instructional television
- identify the production staff team
- identify the production crew team.

5.3 Main Content

5.3.1 Advantages and Limitations of Instructional Television

There are many advantages and disadvantages of instructional television. Let us look at some of them.

5.3.2 Advantages

1. The most obvious instructional attribute of a television is its ability to present colour moving pictures with sound over long distances. Its signals can be recorder or played backinstantly.

2. Educational television had been found to possess the capabilities to positively influence diverse skills and knowledge in different areas. For example, programs such as The Electric Company, Barney & Friends, Dora the Explorer, and The Puzzle Place have been found to play positive roles in language and second-language development (Fisch, Lesh, Motoki, Crespo, & Melfi, (2010). Other types of positive influences on cognitive growth include appreciation for music and the arts, general knowledge, and appreciation of diversity, among others.

3. Communication by television is effective because it can transmit a wide range of audiovisual materials including still pictures, film, objects, specimens anddrama.

4. Instructional television will reach large audiences at low-cost per person.

5. Viewers over vast geographical areas can experience a live event simultaneously. It is capable of transporting the viewer to any location in the past, present andfuture.

6. Learners can be reached at home through television broadcasting which makes “open and distance learning” a reality. The development of inexpensive video-recorders makes it feasible for students to view video materials on an individual basis, at their own time and their ownpace.

7. Television can bring models of excellence to the viewer. We can see and hear the able scientist, the creative teacher, the great poet and the pragmatic dramatist. Television can bring specialized teachers in foreign languages, mathematics, science etc to the classroom.

8. Television bridges the educational opportunities gap between children living in urban centres and those in the rural communities.

9. Television can bring the versatility of the television camera to the teaching process. The medium provides us with sounds and sights not easily available even to the viewer of a real event: long shots, close ups, zoom shorts, magnification, extreme close ups, etc. Think of watching a football game on the television and going to the field to watch. Think also of medical students

watching films on surgery and performing the actual surgery.

10. Television is used for self evaluation in micro- teaching in teacher training colleges, colleges of education etc. Television may thus be used to present common experiences for group discussion and evaluation after a teacher on practiced teaching has been recorded.

11. Television can be both instructive and enjoyable. It can provide an interesting, exciting change of pace, and give us the variety that is the spice of education.

5.3.3 Limitations

1. The complexity of the television technology allows many possibilities for disruption of the communication flow. Here, I mean that atmospheric conditions may disturb broadcast signals or satellite reception. This limitation can be combated using video cassettes.

2. There is the possibility of technical difficulties over which the teachers or students have little or no control that will intervene between the lesson and the learner e.g, the television set itself may be malfunctioning.

3. Television as an instructional tool is a one-way channel of communication. There is little or no feedback from the target audience. Some critics of television also advance the reason that it encourages passivity on the part of the viewer especially for educational purposes. Live Broadcasts however has adopted phone-in methods to reduce the limitation.

4. Cost may be another limiting factor. Colour television sets are expensive, moreover the human labour involved in production, distribution, maintenance etc can also be capital intensive. Unless large numbers of learners are being served, the costs may be difficult to justify.

5. It is not very ideal for large group viewing since TV image is displayed on a rather small surface. One TV receiver is needed for approximately thirty viewers. Though this limitation can be overcome by using the large-screen television projection systems, the cost is still prohibitive for many educational applications.

6. Television moves ahead at a constant speed. You cannot seen a television programme as you would a book. You cannot ‘read’ at your own pace. In other words, you must match the tempo of

your learning with the tempo of the televised presentation. This is not always a simple matter. However some modern TV sets are equipped to either fast forward show down or revival to previous experiences

Self Assessment Exercise(s) 1

i.	State the advantages of instructional television.
ii.	Identify the production staff team.

5.4 The Television Team

Television production is a team operation which requires the skills and abilities of a variety of artists and craft specialist to successfully produce programmes. A television production is the sum total of the coordinated efforts of dozens of skilled individuals who make up the television team. The television team can be roughly divided into two groups viz. production staff members and production crew members.

5.4.2 The Television Team: The Production Staff

The production staff is composed of those jobs which are considered to be "creative", the producer, director, script writer, assistant director and the production assistants. You need to have an idea about their responsibilities during the production stages. The production stages are preproduction; setup and rehearsal; production and post production. We will be discussing these further in unit 6.

1. The Producer: The producer is responsible for the entire television production. He is in-charge of all production aspects from the planning and writing of the script to the final production and editing. He also develops the production budget; he assigns the programmes director, works with the writer on script and supervises all pre-production planning, rehearsals, the actual production and post-production activities.

2. The Director: He participates in all pre-production meetings. He works with the producer and script writer in script development. He establishes production timelines in consultation with the producer, he casts performers and work out camera shots. He rehearses performers, rehearses camera shots in the studio. He executes the production and supervises the final editing.

3. The Script Writer: He works with the producer and director in developing the script format. He revises the script until it is finally approved. He must make himself available for re-writing if necessary.

4. The Assistant Director: He helps the director in planning

production design assists director during our of studio rehearsal and makes ready camera shots and other cues during rehearsal. He keeps track of programme timing during production and helps the director during the post-production editing.

5.5 The Television Team – The Production Crew

The production crew is made up of individuals who work primarily with the production hardware and equipment: the technical director, the audio engineer, camera operators, floor managers and a variety of crew assistants and technicians. Let us look at some of them in details.

1. **Technical Director:** He consults with the producer and director on necessary technical facilities. Actually, he sits next to the program director in front of a large bank of buttons and controls called the "Switcher". The Technical Director operates the switcher on the director's command, showing whatever video source is called for onto the air. He is also responsible for the general supervision of the technical crew.

2. **Audio Engineer:** He is responsible for the sound effects of a television production. During production, the audio engineer sits at a sound-control console mixing the various audio inputs from studio microphone, tape recorders, record turntables, film and video tracks etc. He must balance all of the sound inputs together to create the mixed sound of the program. The audio engineer supervises the operation of the audio crew and coordinates the set up of all audio equipment. He also consults with the program director and other key team members on production design and necessary audio.

3. **Light Director:** The light director also consults with the program director, producer and scenic designer on overall lighting approach. He designs and executes the lighting for a production. Lighting provides the necessary illumination for the operation oft he cameras. He supervises the hanging and focusing of the lighting instruments. During the actual production, the lighting director balances all lighting instruments until the proper illumination and effects are achieved to present the artistes as effectively as possible onscreen.

4. **Scenic Designer/Art Director/Set Designer:** He consults with the producer, program director and lighting director on overall physical setting for a program. He supervises the stage heads and crew members who erect the set on the studiofloor.

5. **Floor Manager/Stage Manager:** Since the program director operates from the control room, the floor manager acts as the director's eyes, ears and voice on the studio floor. He is responsible for seeing that everything on the floor goes smoothly.

6. **Camera Operators:** They control the television camera during a production. Studio cameras are mounted on pedestals which are wheeled around the floor to set up different shots and angles. The camera operator receives shot instructions from the director via a headset and using the camera lens system, he composes and frames a shot. A good camera operator with a keen sense of composition and visualization is a valuable asset to the production team.

7. **Video Engineers:** Each studio camera has its own control unit which enables the engineer to control for variations in scene brightness, contrast, colour balance and registration. He sets up and aligns cameras for best picture. He also helps the director to achieve special visual effects as necessary during production.

8. **Graphic Designer:** Projects all graphic details of the entire curriculum for broadcast.

There are other important members of the production crew like graphic artists, make-up and wardrobe personnel and a host of technicians who operate the video tape recorders, film and slide projectors, install, repair and maintain the sophisticated and delicate production equipments. To a certain extent, this division between production staff and production screw is rather arbitrary since many jobs will invariably cross lines for instance it is not uncommon for the director to operate the video console, or for the scenic designer to even operate the lighting system.

5.6 Summary

In this unit, we have looked at the advantages and limitations of instructional television. We also studied the roles of the different players in the production of instructional television. The television team can be divided into two major groups:

1. The production staff including the producer, director, assistant director, production assistants and script writers who are concerned primarily with the "creative" side of the production and,
2. The production crew including the technical director, the audio

engineer, video engineers, floor manager, camera operators and the rest of the technical crew who are primarily concerned with equipment operation and maintenance.

The unit also focused on television production as a team effort. The team approach is the most important element in producing the kind of programs people will want to watch and that everybody in the team can be proud of. An effective and efficient television team requires the integration of many different jobs, all performed and coordinated perfectly by the production staff and crew highlighted in this unit. All production staff are same during production. To make the team work well, production staff work in harmony when on work.

5.7 References/Further Readings/Web Resources

Fisch, S. M., Lesh, R., Motoki, E., Crespo, S., & Melfi, V. (2010). *Children's Learning From Multiple Media In Informal Mathematics Education*. Summative research report on Cyberchase to PBS.

Heinich, R.; Molenda M. & Rossel, J. D. (1983).*Instructional Media and the New Technologies of Instruction*. New York: John Wiley and Sons.

Edgar Dale (1969). *Audio Visual Methods in Teaching*. New York: Holt, Rinehart and WinstonInc.

Chester, G., Garrison G. R. & Willis E. E. *Television and Radio*. London: Prentice Hall Int. Inc.

Allan Wurtzel (1979). *Television Production*. McGraw Hill Book Company.

Ogunmilade C. A. (1984). *Media in Education*.Ife: University of Ife Press.

5.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

i. The most obvious instructional attribute of a television is its ability to present colour moving pictures with sound over long distances. Its signals can be recorder or played back instantly.

ii. Educational television had been found to possess the capabilities to positively influence diverse skills and knowledge in different areas. For example, programs such as The Electric Company, Barney & Friends, Dora the Explorer, and The Puzzle Place have been found to play positive roles in language and second-language development (Fisch, Lesh, Motoki, Crespo, & Melfi, (2010). Other types of positive influences on cognitive growth include appreciation for music and the arts, general knowledge, and appreciation of diversity, among others.

iii. Communication by television is effective because it can transmit a wide range of audiovisual materials including still pictures, film, objects, specimens and drama.

iv. Instructional television will reach large audiences at low-cost per person.

v. Viewers over vast geographical areas can experience a live event simultaneously. It is capable of transporting the viewer to any location in the past, present and future.

2. The Producer: The producer is responsible for the entire television production. He is in-charge of all production aspects from the planning and writing of the script to the final production and editing. He also develops the production budget; he assigns the programmes director, works with the writer on script and supervises all pre-production planning, rehearsals, the actual production and post-production activities.

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The Script Writer: He works with the producer and director in developing the script format. He revises the script until it is finally approved. He must make himself available for re-writing if necessary.

The Assistant Director: He helps the director in planning production design assists director during our of studio rehearsal and makes ready camera shots and other cues during rehearsal. He keeps track of programme timing during production and helps the director during the post-productionediting.

UNIT 6 PRODUCTION OF INSTRUCTIONAL TELEVISION PROGRAMME

Unit Structure

6.1 Introduction

In the previous unit, we studied the advantages and limitations of instructional television. We also studied the television team especially the production staff and the production crew. In this unit, we shall be discussing the television studio. We will also delve into the four stages in television production.

6.2 Intended Learning Outcomes

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

- explain what a normal television studio is made up of
- describe the four stages in television production.

6.3 Main Content

6.3.1 The Television Studio

Majority of programs are still produced within the television studio. All studios are made up of two areas:

1. The control room, which is the operational nerve centre for production and
2. The studio floor, where the production takes place.

6.3.2 The Control Room

The control room serves as the studio's command center. It is where the program director, the audio engineer, the technical director and the video engineer work. Have you been to a control room before? If you have not, try to visit one as early as you can. As you walk into a control room, you will see an array of television sets that are called monitors. Each monitor displays the video output of a studio camera.

Normally, the monitors are labeled according to the number of cameras on the studio floor. This means that if there are four cameras, you can have up to four monitors for them. There will normally be additional monitors showing video output of film or slide projector, videotape machines, electronics character generators and other remote video feeds. There are also two major monitors among the bank of monitors. One is labeled "Preview" the preview monitor is used to check any picture or special video effect before it is actually sent out through the second monitor called the "Line" monitor. The line monitor shows the actual picture which is leaving the control room to the air or to be fed to videotape for recording. All the monitors are well labeled to indicate what they are showing.

In front of the array of monitors is a long table called the production console. This is where the director, the technical director and production assistant sit during a production. In short, they sit where they will have a good view of the monitors and decide on which pictures to use.

Another feature of the control room is the audio console being controlled by the audio engineer. The audio engineer can listen to the audio mix or preview audio sources to decide which sound or sound effect should go into their cording.

To the side of the control room are the camera control units called CCU for short. These are used by the video operators to regulate the camera pictures. These are the main features of the control room.

6.3.3 The Studio Floor

The studio floor is where the production actually occurs. The studio floor is an open area which contains the television cameras, microphones, lighting equipment, sets (i.e the scenery used for a play, film/moves) and of course the performers and crew located around the walls of the studio are various electrical connector boxes to which cameras, microphones and lighting equipment are connected. The lighting equipment generates a considerable amount of heat which is

why most studios are equipped with powerful air conditioning to keep the temperature levels down.
A well planned studio floor will also provide a large area for storing props, (props are small objects used by actors during the performance of a play/movie or film) sets and other pieces of equipment. The doors to the studio floor are always wide. These permit equipment and set to be moved in and out of the floor area freely.

All studios have sound-proof doors and walls which prevent extraneous noise from entering the studio where a sensitive microphone may pick it up and it goes into the recording. A sign above the studio doors automatically lights wherever a microphone is 'live' to warn that the studio is in operation.

6.4 The Four Stages of Television Production

Television production operates in four separate stages:

1. Pre-production planning
2. Set up and Rehearsal
3. Production and
4. Post-production. Let us look at them one at a time.

6.4.1 Pre-Production Planning

The pre-production planning for a programme may begin days, weeks or even months before the actual production date. During this stage, the producer and director work with the script writer to complete the script and to develop the overall production approach. All the key members earlier mentioned in unit 5 like the producer, director, technical director, audio engineer, lighting director, scenic designer meets to discuss the programme and the role each will play. If the production has been planned out carefully in advance, difficulties in production will be reduced or avoided. Remember, producing a program without adequate pre-production planning is an invitation to disaster.

Remember, during pre-production, you

- Develop concept
- Establish objectives and production approach
- Write program scripts/TV former
- Convene production meetings with key team members (producer director, lighting director, scenic designer, technical director, audio engineer, video engineer etc.

6.4.2 Set Up and Rehearsal

Set Up: This is a way of organizing something. Set up means that prior to the actual production, the studio and the control room must be prepared for the program. While the studio floor is being set up, a similar set up should occur in the control room. The technical director for instance must check the tape machines, film or slide projectors, electronic character generator etc, while the audio engineer concentrates on the audio console by checking the microphones, sounds from video tracks and film tracks etc. The video engineer must align the cameras to provide the best possible pictures. He must also prepare video tape and film play backs. Prompters and cues are used to remind presenters on the next line of action or to get them incorporate certain actions.

Rehearsal: Once the studio and control room are properly set up, rehearsals will begin. It is during rehearsal that all the production elements will finally come together – the set, costumes and lighting, the music and sound effects; the camera shots, filmed and taped inserts etc. Rehearsal is to allow all the performers to correct the errors detected and make their performances perfect. For instance, the audio engineers may reposition the microphone, the scenic designer may replace some furniture to better the camera shots and the performers' errors will also be corrected before the actual production. The rehearsal may be dry. This means no camera will be activated or the cameras are blocked.

Self-Assessment Exercise(s) 1

1. Explain what a normal television studio is made up of.
2. Describe the four stages in television production.

6.5 Production

This can be done in two ways:

Live: If it is a live program like football matches, the production stage is the final stage. Some news programme are also produced live. This is the first way.

Video Taping for Editing: Programmes start and end according to the pre-planned air time. However, the development of video tape has changed producing some programmes live. This allows the producer and the director more flexibility. Complex production can be recorded in short segments which can be assembled later through video tape editing. It is not unusual for segments not to be recorded in the exact order in which they will appear in the completed show, but rather for the convenience of production.

6.5.1 Post-Production

Programmes which are produced on video tape for later editing require a post-production phase. At this time, the director supervises the tape editing, selecting those takes or segments which are to be involved in the final edited version. With post-production editing, it is possible to select the very best performance of both cast and crew from a number of different takes and building the show by assembling the best scenes, the best shots and even adding other visual elements like graphics, film or tape to produce an even more enthralling presentation. For instance, additional audio can be added to enhance the existing sound track. Remember that post production involves video tape editing, audio enhancement and evaluation of the programme to know if it meets the objectives stated during the pre-planning stage.

6.6 Summary

In this unit, we have studied the television studio. We also highlighted the four stages in television production.

The television studio complex is composed of two main areas:

1. The control room which is the operational command center where programme elements are directed and coordinated and
2. The studio floor, where the production takes place.

Television production operates in four separate stages

i. Pre-production planning
ii. Set up and Rehearsal
iii. Post-production.

6.7 References/Further Readings/Web Resources

Alan, Wurtzel (1979). *Television Production*. McGraw Hill Book Inc.

Heinch, R., Molanda M. & Rostel, J. D. (1985).*Instructional Media and the New Technologies of Instruction.*New York: John Wiley and Sons.

6.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

1. Majority of programs are still produced within the television studio. All studios are made up of two areas:

The control room, which is the operational nerve centre for production and The studio floor, where the production takes place.

2. Television production operates in four separate stages:

a) Pre-production planning
b) Set up and Rehearsal
c) Production and
d) Post-production.

UNIT 7 THE INSTRUCTIONAL TELEVISIONSCRIPT

Unit Structure

7.1 Introduction

In the last unit, you studied the television studio complex comprising the control room and the studio floor. You also studied the four stages of television production viz (1) Pre-production planning (2) Set up/Rehearsal (3) Production and (4) Post production. In this unit, you will study the format of instructional television scripts. You will also try to write your own instructional television scripts.

7.2 Intended Learning Outcomes

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

- state four hints on script-writing for television
- describe the instructional television script format
- describe seven steps to assure instructional television production.

7.3 Main Content

7.3.1 Hints on Script-Writing for Television

1. Every television production relies on a script of one sort or another. A script serves as a road map for a television production. The script is a working document shared by all those involved in a production. Remember the production staff and the production crew. Script-writing is the development of a situation, story, characters, dialogue etc. Script-writing requires the very special

talents and skills of a creative writer. The scriptwriter suggests such things as visuals, graphics, music and effects. In the production of instructional television, a subject specialist must be included for accuracy of content.

2. Writing for Television, a visual medium is not the same as writing for print. A television Scriptwriter must understand the medium's advantages and limitations and be familiar with the basic techniques of television production. Television is a visual medium. The television scriptwriter must be as comfortable with words and images as with camera use. He must understand the best way to combine words and pictures. The images must synchronize with the words to convey the message. Apart from words and pictures, music and sound effects must also be part of the write-up. Camera shots of various types must be indicated in the script.

3. Although television is a visual medium, all words or dialogue in a script must be written for the ear. As a general rule, always read your script aloud, listening to how it sounds. In general, keep your sentences simple, direct and to the point. Do not cram too many facts, figures, names or ideas into a few sentences. A script must be written to be heard

4. The basic reason for producing any programme is to show it to an audience. So, you need to analyse your audience. In instructional television, you know the class you are writing for – is it Senior Secondary or Junior Secondary or is it Junior Primary or Senior Primary. You may need to go to school to study the syllabus, talk to teachers and discuss with some students. Always write with your target audience in mind.

7.4 Detailed Script Format of an Interactive Instructional Television Program on English Grammar

SHOTS	VIDEO	AUDIO
1.	Blank	
2.		FU theme Music – Vivaldi – "The four seasons" and hold under.
3.	Cam1 / L/S of Announcer	Hello, the programme you are about to watch is English Grammar for all. Ada Onuba will be your guide. FU theme Music.
4.	Cam 2.Cap. 1 / "How Good is your English?" Programme 1.	
5.		FO theme Music completely
6.	Cam1. / MCU Presenter	Hello, you are welcome to our new English series titled "How Good is your English?" Today we will be discussing English Grammar. This series is an interactive one and I will like you to always get ready your exercise books and pen or pencil ready. I'm giving you twenty seconds to get them ready.
7.		FU Music and FO Music
8.	Cam1. / LS of Presenter	Now, what is grammar? For many students, grammar has been a frightening word for something they thought they would not understand.
9.	Cam 2.Cap. 2 / What is Grammar?	But this should not be so. The grammar of a language is a description of the rules governing the proper use of the language – repeat. If
10.	Cam1 / CU of Presenter	we are to use language correctly and understand it thoroughly. Then we must know the rules i.e the grammar that describes the way the language isused.

SHOTS	VIDEO	AUDIO
11.	Video Insert / A film of the a football match	Can you be a football player if you don't know the rules of the game? Of course not.
12.	Video Insert/ Video of people playing Ludo monopoly, scrabble etc.	Think also of other games like "Ludo", "Monopoly" and "Scrabble". You must know the rules before you start to play the game.
13.	Cam1 / MCU of Presenter	Let's now link game playing to speaking English Language. Why do you need to know English Grammar? First of all, you must know what \the rules are in order to understand and quickly correct your ownerrors.
14.	Video Insert / Students writing examination	Also, your English examination paper sometimes uses grammatical names and functions. You also use grammar in writing your essays, answering summary questions and also answering comprehension questions.
15.	Video Clip / People talking, People writing, People greeting etc.	In everything we do involving other people, we make use of communication in some form. Language, either spoken or written is the most common. The words we use fall into one of the eight basic classes of English called Parts of Speech.
16.	Camera Cap. / Parts of Speech	In other words, all the words in English Language can be put, according to the work they do into eight and only eight parts of speech.
17. 18.	Cam1 / CU of Presenter Video Clip / Students writing	Can you name the eight parts of speech? Now, write them in your exercise books. (PAUSE FOR STUDENTS REPONSE by FU Bridge Music for 20 Secs.)

SHOTS	VIDEO	AUDIO
19. 20.	Cam.1 / MCU of Presenter Camp 2.Cap. / Parts of Speech: Nouns……Interjection.	Did you get them right? Here they are: Nouns, Pronouns, Verbs, Adjectives, Adverbs, Prepositions, Conjunctions and Interjections. Let go over them again. Nouns, Pronouns, Verbs, Adjectives, Adverbs, Preposition, Conjunctions and Interjections. Check the answer against your answer.
21.	Cam1 / MCU of Presenter	The key to understanding the parts of speech is to be able to determine their functions. I mean the work they do. Let's now take the eight parts of speech one at a time. Which of them do we discuss first? Again get ready your exercise books, pen orpencil.
22.	Cam. 2Cap /Nouns	Ready? Let's go for Nouns first. What is a Noun? Write your answer in your exercise book.
23.	Video Clip / Students Writing	PAUSE FOR STUDENTS' RESPONSE BY FAING UP BRIDGE MUSIC FOR 20 Secs.
24. 25.	Cam. 1 / LS of Presenter Video Clip A rowdy Market scene with a lot of activities.	A Noun is a word used as the name of a person, place, things or idea. Look at this Video clip and write down the names of all you can see in the picture – ALLOW THE MARKET SCENE TO BE ON THE SCREEN WHILE STUDENTS WRITE THE NAMES OF ALL THEY CAN SEE.
26.	Cam. 1 / MCU Presenter	Were you able to get down these names. Yes, Man, woman, Boy, Girl, Oranges, Bananas, Yam, Meat, Book, Shirt, Chicken, Doors, Windows etc. all you have seen on your screen are Nouns.

SHOTS	VIDEO	AUDIO
27.	Cam. 1 L/S of Presenter	Well, students in today's lesson, we studied grammar, we studied the parts of speech and we ended with Nouns. In our next lesson, we will study Verbs. Until then. It's goodbye from me
		FU Music.
28.	Character Generator / Script Written by Dokun Olagunju and Ada Onuba	Fade Up Music
29.	Char. Gen. /Presented by Ada Onuba	
30.	Char. Gen. /Cameramen Muda Ahmed Mohammed Ahmed	
31.	Edited by / Olayiwola	
32.	Directedby / DokunOlagunju	
33.	Char.Gen / A National Open University of Nigeria Production © 2006.	
34.		Fade Out Music completely

You will notice that the page is divided into three columns. First column is sequential Shots, second column is labeled "Video" and the last column is labeled "Audio". Program content and production information are divided into video and audio. The video side is for important visual elements such as titles, graphics, film or video tape inserts etc., while the audio side contains the sound elements of the programme. Sound effects and music cues are also inserted. You will notice that there are blank spaces along the video side. This is to leave room for the director and other team members to write in their operational cues. Directors will also write their remarks during the actual production that will help the editing crew during the post-production or the editing process.

7.4.1 Some Acronyms in Script Writing

Let me quickly explain some acronyms associated with Television script format.

1. **ELS:** This is an extreme Long Shot. It is a very wide view in which the camera takes in the entire playing area.
2. **LS:** This is a long shot. It is a slightly closer field of view than the extreme long shot.
3. **MS:** This is a medium shot. The subject becomes much larger and more dominant.
4. **CU:** This is a close up shot. The subject becomes the primary focus of interest within the shot. Only a small portion of the background is visible.
5. **ECU:** This is an extreme close up shot. The subject virtually fits the screen and is clearly the central focus.
6. **FO & FU Music:** Fade out and Fade Up Music.

SELF ASSESSMENT EXERCISE

1	State four hints on script-writing for television.
2	Describe the instructional television script format.

7.5 Developing an Instructional Television Programme – using a Systems Approach

1. Analyse Your Learners: The fundamental reason for producing any instructional television programme is to show to a target audience. So, you must first analyse your learners' characteristic. This is the same thing as Audience Analysis. A target audience must be analysed to have knowledge of what they already know and what you can present to them to improve their knowledge. So, you need to carry out an audience research.

2. State Your Objectives: In any instructional television programme you are developing, it is a good idea if you use the systematic planning process. First, you need to at least have a vague idea which can be translated into a viable and effective television production. A need for the program must first be established. A need is the discrepancy between the actual situation and the desired situation. An instructional television programme must have well stated objectives. As stated earlier, a need is the gap between the way things are and the way things are to be. Behavioural objectives are statements which describe specifically, in observable and measurable terms. The change in knowledge, attitude or performance that the audience will be able to demonstrate as a result of the television instruction. Your objective is a

statement NOT of what the television instructor plans to put in a lesson, but of what the learner ought to get out of a lesson.

3. **Gathering of Materials:** The first step can be a trip to the library to learn more about the subject. You may also wish to contact some subject experts to help you focus on the important issues or to suggest additional sources for research. You can visit nearby universities, professional associations, public officials - all are good resources for gathering of materials.

4. **Selection of the Production Team:** Select your production team carefully, explain what you want and trust them to do their jobs. You will find out that if you communicate your concept to others and give them the opportunity and freedom to contribute their ideas well, you will have a happier and more productive staff.

5. **The Programme Script:** Now, write the script for production. The foundation of every production is the program script. Because the script is so fundamental to the production, you can write it yourself. If you cannot, delegate a staff writer or a free-lance writer can do it. Or you can give it to a content specialist to do it. Almost, every television script goes through a series of revisions and rewrites before it is produced. After the script revisions are completed, the final version becomes the shooting script. This will be typed and distributed to the other members of the production team.

6. **You need to select the talents for production re-casting:** You may need experienced teachers since it is an instructional television programme. The teachers or the instructional television presenters are not always easy to find. Here are some tips for you to know what you are looking for in a presenter.

1. He inflects and modulates the voice properly.
2. He speaks at a comfortable pace.
3. He aims for a smooth flow of words
4. Rehearses the script.
5. Sticks to correct pronunciation of words.
6. Pronounces names properly.
7. Sounds warm and friendly.
8. Is calm and confident even when ad-libbing.
9. Choose the listeners politely.
10. Provides informative links between programmes.
11. Apologizes for an error.

7. Rehearsal, Production and Post Production: After casting, rehearsals will follow usually dry rehearsals without cameras or costumes. This can be in an office or any other place. After rehearsals come the production and post production stages as discussed earlier on.

8. Evaluation: is the final activity. How do we evaluate the programme?

1. Post Viewing Evaluation Tests: Here, you need to administer post viewing tests or questionnaires. Judging from the objectives given at the beginning concerning what you want the target audience to learn, you draw up questions to evaluate whether the objectives were realized after the students had watched the programme. It is advisable to design students' workbooks to accompany instructional television. At the end of the programme, students should answer questions in their workbooks. The answers to the questionnaires will enable you to know the segment that the students had gained from and the segments which had proved less effective. In other words, segments that are less effective needs to be revised and we go back to objective setting.

2. Informal Audience Feedback: Phone calls and letters constitute more informal audience feedback. Many writers and callers are sincere in their praise and criticisms. Paying attention to various calls and letters and noting the overall tread of such messages can give you some interesting perspective in viewer reactions to your programme.

3. Research Unit: Every programme for broadcast must have to relate to the research unit of the station to provide materials, check the content scripts, moderate layout plans, and conduct pre and post audience research.

7.6 Summary

In this unit, you have studied some useful hints on scriptwriting for instructional television. You are also exposed to the instructional television script format. Finally, you studied seven useful steps in instructional television production.

Every television production relies on a script as the foundation of production. A script serves as a road map for a television production. We have studied it in-depth because of its vital importance in production. The instructional television format given is not exhaustive. It can serve as a teaser for you to go ahead and explore more in your subject area. Finally, you were introduced to the system's approach in planning to develop an instructional television production.

7.7 References/Further Readings/Web Resources

Juma, Shabani & Peter Okebukola (Ed.)., (2001)..*Guide to the Development of Materials for Distance Education*, Trial Edition. UNESCO – BREDA.

Ayo, Ojelabi (2000). *Essentials of Education Technology*. Raytel Communication Ltd.

Alan, Wurtzel (1979). *Television Production*. McGraw Hill Book Inc.

Heinich *et al* (1985). *Instructional Media and the New Technologies of Instruction.* John Wiley and Sons.

7.8 Possible Answers to Self-Assessment Exercise(s)

Answers

1

a) Every television production relies on a script of one sort or another. A script serves as a road map for a television production. The script is a working document shared by all those involved in a production. Remember the production staff and the production crew. Script-writing is the development of a situation, story, characters, dialogue etc. Script-writing requires the very special talents and skills of a creative writer.

b) Writing for Television, a visual medium is not the same as writing for print. A television Scriptwriter must understand the medium's advantages and limitations and be familiar with the basic techniques of television production. Television is a visual medium.

c) Although television is a visual medium, all words or dialogue in a script must be written for the ear. As a general rule, always read your script aloud, listening to how it sounds. In general, keep your sentences simple, direct and to the point. Do not cram too many facts, figures, names or ideas into a few sentences. A script must be written to beheard

d) The basic reason for producing any programme is to show it to an audience. So, you need to analyse your audience. In instructional television, you know the class you are writing for – is it Senior Secondary or Junior Secondary or is it Junior Primary or Senior Primary.

MODULE 2

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

Unit Structure

1.1 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 audience so thousands and, at times of millions of people.

Instructional radio involves using audio technology to provide educational opportunities for students. The use of instructional radio had been found to be very appropriate in such settings where the education system is not very strong, qualified lecturers are scarce, and instructional materials have to be provided on a large scale (Olakulehin, 2016). 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.

1.2 Intended Learning Outcomes

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

- narrate the historical background of instructional radio in Nigeria
- identify at least three types of instructional radio programmes.

1.3 Main Content

1.3.1 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 re-diffusion 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. Re-diffusion 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 Post-gate, 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. Post-gate 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.

1.4 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.

1.4.1 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

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

1.5 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 these 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.

1.5.1 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 residentialseminars.

Tremendous success was recorded. This will be discussed fully in Unit 2, under case studies.

1.6 Summary

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. 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.

1.7 References/Further Readings/Web Resources

Anthony, Bates (1984). *Broadcasting in Education - an Evaluation.* London: Constable Press.

Olakulehin, F.K. (2016). *Impact of Instructional Radio Delivery Mode on Academic Achievement of Distance Learning Students' in Computer Science.* US-China Education Review B, 6, (12), 688-698 doi: 10.17265/2161-6248/2016.012.002

G. Chester *et al* (1978). *Television and Radio.* Cliffs N.J: Prentice Hall Inc. Englewood.

1.8 Possible Answers to Self-Assessment Exercise(s)

Answers to SAE 1

1. 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".

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UNIT 2 EFFECTIVENESS OF INSTRUCTIONAL RADIO – CASE STUDIES

Unit Structure

2.1 Introduction

In the previous unit we learnt about the historical foundation to instructional radio. We also discussed three types of instructional radio viz (a) direct teaching (b) enrichment or supplementary teaching and (c) for formal adult education. In this unit, we shall be looking at three case studies in which instructional radio had been put to great use.

As mentioned in the previous unit, as early as the 1920's, educational authorities began using instructional radio to supplement instruction within schools and to extend the reach of education outside the schools. Some countries that have used instructional radio to improve the quality of instruction are Nicaragua, Mexico and Kenya.

2.2 Intended Learning Outcomes

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

- describe the effectiveness of instructional radio in (a) Nicaragua (b) Mexico and (c)Kenya.

2.3 Main Content

2.3.1 The Nicaragua Radio Mathematics Project

In Nicaragua, instructional radio programmes were used to improve the quality of instruction in Mathematics. The project came into being due to the low level of education of the teachers resulting from lack of

training and other suitable resources such as books. The quality of instruction was considered poor. In 1973, the Nicaragua Radio Mathematics Project was undertaken by Nicaragua government under contract with the Institute for Mathematical Studies at Stand ford University. Using the mathematics curriculum of the Nicaragua ministry of education; the lesson segments were developed and translated into 20 minutes radio scripts. The Nicaragua government supported the project with local staff and facilities.

In order to make the radio programme interactive and effective, students' worksheets and teachers' guides were used as supplements. In general, the radio instruction project was well received by both teachers and students. Using the worksheets, students got a great deal of practice and responded with correct answers. According to Bares:

… in Nicaragua, at all grades covered by the scheme, pupils taught mathematics by radio learned more than pupils taught in traditional classrooms and these results were consistent with different types of school and levels of ability.

Self-Assessment Exercise 1

Adduce three reasons for the Nicaragua Radio Mathematics Project. Apart from radio instruction, mention two other resources that made the project successful.

2.3.2 The Mexico Radio Primaria Project

In Mexico, instructional radio programmes were used to **expand the range of the school system.** By this I mean it enabled pupils who would otherwise have had no formal schooling beyond a certain age to continue with their schooling. Most of the pupils could not complete their primary school. A major reason for the dropouts was simply the lack of school facilities. Yet, there was a drift from the rural areas to seek employment in the cities. Of course without full primary school education, there was no guarantee of any job in the cities. Thus, the government was faced with the task of ensuring basic education for its teeming population. To rectify this situation, the government turned to the use of radio.

In 1970, a project called radio primaria began in the city of San Luis Potosi, 260 miles Northwest of Mexico city. The objectives were:

(1) that children of school age who live in rural communities and attend schools below primary six be able to complete their primary education in the ordinary time of six yearsand,

(2) that as an extension of the project, the opportunity be given to persons above 15 years, who for various reasons could finish their primary education to finish their studies as informal students.

As you can see, full primary education in the rural areas was the goal of radio primaria because the rural people believed that education could lead to jobs in the city. There was a consistent desire for education with a conviction that education is a vehicle to escape from the rural area. Most of the pupils also believed that better job opportunities await them with their primary school certificate in hand. In Mexico, lessons based on the standard national curriculum were distributed through radio to areas where there was no adequate conventional school provision. Pupils normally follow the programmes in classes, using basic accommodation. There was usually a supervisor or monitor in charge of thegroups.

It is heartening to note that the achievement score indicated that children taught with the radio received education comparable to the children in the traditional school system.

SELF ASSESSMENT EXERCISE 2

Narrate the educational situation in Mexico that led to the introduction of instructional radio by the Mexican government in1970.

2.4 In Service Training of Teachers through Radio and Correspondence in Kenya

During the early years of independence, the problems confronting Kenya were a high percentage of illiteracy among the adult and working population, increase in school enrollment as a result of growing public demand for education and most importantly, shortage of qualified and experienced teachers, teacher trainers and administrators. Thus, the government of Kenya wished to expand primary education to enable all children of the target age to receive full time education. To achieve this quickly meant employing large number of teachers without any professional training. In 1968, of the 37,923 teachers employed in Kenyan primary schools, 10,438 had no professional qualifications. Consequently, the Ministry of Education embarked on in-service teacher training and upgrading programmes as a way of providing more qualified teachers. Against this backdrop and with the urge to increase the speed of Kenya's educational development, the Ministry of Education set up in 1964, a commission to look into the system and make recommendations to the minister of education. Out of their report came a decision to use instructional radio and correspondence methods for teacher training. Thus, in 1968, a correspondence course unit was set

up in the University of Nairobi to provide courses through a combination of correspondence teaching, radio broadcasts and occasional residential seminars.
The programmes were quickly embraced by teachers because they enabled them to obtain academic and professional qualifications while in employment. Radio offers one of the most practical and effective means of communication. In Kenya, reception in most parts of the country is generally good. About 90% of the population can easily be reached through the use of radio. The battery powered transistor radio has increasingly become popular with most families including those in rural areas. The immediacy of radio and the credibility of the information and messages carried by radio constitute some of the strengths of this medium. So, radio broadcast programme were developed as an integral part of the instructional system. Radio broadcasts have been used regularly to supplement instruction in each subject in the same way that a classroom teacher will offer extra help to the slower students to encourage them, sustain their interest, answer their questions and help them solve their problems.

Radio lessons were offered in English, Kiswahili, History, Geography, Mathematics, Biology and Physical Science. The Kenyan case study, you will agree with me is a laudable way of solving particular problems in the development of the country using instructional radio.

Self-Assessment Exercise 3

Describe the educational problem in Kenya immediately after independence. How was this problem resolved?

2.5 Summary

In this unit, we have seen how instructional radio programmes were effectively utilized in Nicaragua, Mexico and Kenya. Instructional radio programmes were used to improve the quality of instruction in Mathematics in Nicaragua. The same instructional radio was used to expand the range of the school system in Mexico using the Mexico Radio Primaria Project. In Kenya, instructional radio was used to redress the problem of unqualified teachers. In a nutshell, instructional radio can be used for formal and non-formal education. The focus of this unit is that instructional radio can be used to solve educational and social problems if properly utilized. The three case studies here are examples of what had happened in various parts of the world where the medium of audio instruction had been properly used to the best advantage. The unit shows us that instructional radio can be deployed to improve the quality of instruction and also to expand the range of the school system. It shows that teacher media education is necessary to

expand the teaching of materials on Radio.

2.6 References/Further Readings/Web Resources

Radio for Education and Development: Case Studies vol. 1. World Bank Staff Working Paper No. 266 of May 1977. (Ed.). Peter Spain *et al*.

Stanley, R. Allen (1990). .*Audio in Media*. Wadworth Publishing Company.

Bates, A. N. (1984). .*Broadcasting in Education*. London: Constable Press.

Heinich, *et al*. (1989). *Instructional Media and the New Technologies of Instruction*. New York: John Wiley and Sons.

2.7 Possible Answers to Self-Assessment Exercise(s)

Answer

1.

UNIT 3 BASIC CONCEPTS IN INSTRUCTIONAL RADIO

Unit Structure

3.1 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.

https://warchild.ca/wp-content/uploads/2016/07/DRC-2016-0161.jpg

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.

3.2 Intended Learning Outcomes

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

- distinguish between 'hearing' and 'listening'
- identify four areas of breakdown in audio communication
- describe four techniques you can use in improving listening skills
- list five advantages and five limitations of instructional radio.

3.3 Main Content

3.3.1 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'.

3.3.2 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.

3.3.3 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.

3.3.4 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 break-down 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".

3.3.5 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.

3.3.6 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?

3.4 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.

3.4.1 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.

3.4.2 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.

3.4.3 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 thestory.

3.4.4 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.

3.4.5 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.

3.4.6 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.

3.5 Advantages and Limitations of Audio Media

3.5.1 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.

3.5.2 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 Exercise4

Identify four advantages and four limitations of instructional radio programmes.

3.6 Summary

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.

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. In fact, 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.

3.7 References/Further Readings/Web Resources

Ralph Milton: *Radio Programme – A Basic Training Manual*. Takenham: Cox Wyman Ltd.

Heinich *et al* (1985). *Instructional Media and the New Technologies of Instruction.*New York: John Wiley and Sons.

3.8 Possible Answers to Self-Assessment Exercise(s) within the content

Answer to SAE

UNIT 4 APPLICATIONS OF INSTRUCTIONAL RADIO FACILITIES IN THESTUDIO

Unit Structure

4.1 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.

4.2 INTENDED LEARNING OUTCOMES

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

- describe one possible use of instructional radio in your area of discipline
- identify some facilities in the performance studio
- identify some facilities in the production control room.

4.3 MAIN CONTENT

4.3.1 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.

4.3.1b 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, storytelling etc can be taught using instructional radio. In fact, speaking, reading, listening and even writing skills can be taught using instructional radio.

4.3.1c 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.

4.3.1d 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.

4,3,1e 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.

4.3.1f 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.

4.3.1g 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.

4.3.2 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 was 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.

4.4 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 thestudio.

4.4.1 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 areused

(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.

4.5 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 equipments in the production control rooms.

i. The turntable
ii. the tape recorder
iii. the audio consoles
iv. The patch panel and
v. the signal processors.

4.6 Summary

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.

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.

4.7 References/Further Readings/Web Resources

Stanley R. Alten (1990). *Audio in Media*. California, Belmont: Wadworth Publishing Company.

Heinich *et al* (1985). *Instructional Media and the New Technologies of Instruction.*New York: John Wiley and Sons.

J. Graham Jones (1972). *Teaching With Tape*.Focal Press. Ralph Milton: *Radio Programming: A Basic Training Manual*. Takenham: Cox & Wyman Ltd.

4.8 Possible Answers to Self-Assessment Exercise(s)

UNIT 5 FUNCTIONS OF SOUND/PREPRODUCTION STAGE

Unit Structure

5.1 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.

5.2 Intended Learning Outcomes

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

- explain some functions of sound in radio production
- describe the stages in the production of instructional radio programmes.

5.3 Main Content

5.3.1 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 in formation.

(2) The greatest advantage of the pure sound medium lies in its direct appeal to imagination. The 'scenery' is built in them thelisteners 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 or spiritual effect on the listeners. Throughout history, kings and the 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.

5.4 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 ofdialogue.

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 ofMusic

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 Ibo land, Hausa land or Yoruba land. 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.

5.5 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.

5.5.1 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 too many ideas, the listener's mind will fail to grasp the theme. Actually, twenty minutes duration is the highest. A twenty-minute 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, which are 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.

5.6 Summary

You 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. You also learnt the functions of these elements and discussed 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. You were also 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.

5.7 References/Further Readings/Web Resources

Heinich, Molenda & Russel (1985).*Instructional Media and the New Technologies of Instruction.* New York: John Wiley & Sons.

Juma Shabani & Peter Okebukola (Ed) (2001). *Guide to the Development of Materials for Distance Education.* Ibadan: Olu Akin Printing Press. UNESCOBREDA

Stanley R. Alten (1990). *Audio in Media*.California, Belmont: Wadworth Publishing Company.

J. Graham Jones (1972). *Teaching with Tape.* London and New York: The Focal Press.

5.8 Possible Answers to Self-Assessment Exercise(s)

UNIT 6 THE INSTRUCTIONAL RADIOSCRIPT

Unit Structure

6.1 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.

6.2 Intended Learning Outcomes

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

- describe the stages in the script-writing process
- write your own script for an instructional radio programme.

6.3 Main Content

Script Development for Instructional Radio: Useful Hints

6.3.1 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.

6.3.2 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.

6.3.3 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.

6.3.4 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.

6.4 Script Writing for Instructional Radio: Three Stages for Writing

6.4.1 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 very short sentences 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. **The 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.

6.4.2 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 = 3,600words.

6.4.3 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 airworthy?

6.5 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 anyplace. (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 HANDOUT

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: cockcrowing

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 ANDOUT

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. NestADE

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 ANDDOWN**

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 ANDOUT**

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 cannot 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 ANDUNDER**

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.

6.5.1 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 UNDER20"**

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 frame3.

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.

6.6 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.

6.7 References/Further Readings/Web Resources

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

Juma Shabani & Peter Okebukola (ed) (1991). *Guide to the Development of Materials for Distance Education* – UNESCO-BREDA.

Stanley R. Alten (1990). *Audio in Media*. California, Belmont: Wadsworth Publishing Company.

Heinich, Molenda & Russel (1985).*Instructional Media and the New Technologies of Instruction.*New York: John Willey & Sons.

6.8 Possible Answers to Self-Assessment Exercise(s)

Answer
1.

UNIT 7 PRODUCTION AND POST PRODUCTION STAGES

Unit Structure

7.1 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.

7.2 Intended Learning Outcomes

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

- describe some techniques a presenter should possess
- list post-production activities
- evaluate your own finished instructional radio programme.

7.3 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.

7.3.1 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.

7.3.2 Smile

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

7.3.3 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.

7.3.4 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
vii. You should apologize for any error

Self-Assessment Exercise 1

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

7.4. 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 razorblade
   ii. Marking pen or pencil: A very soft lead pencil or an indelible felt pen can be used to mark the editing point on therecording.
   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 sametime.

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

7.5 Evaluating your Finished Product

7.5.1 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 overallarrangement.

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.

7.5.2 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.

7.6 Summary

In this 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. 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.

7.7 References/Further Readings/Web Resources

Stanley, R. Alten (1990). *Audio in Media*.U.S.A: Wadworth Publishing Company.

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

Heinich, Molenda & Russel (1985).*Instructional Media and the New Technologies of Instruction*. New York: John Willey & Sons.

Bates, A.N.(1984). *Broadcasting in Education*.London: Constable Press.

7.8 Possible Answers to Self-Assessment Exercise(s)

Answer
1.

UNIT 8 INTERACTIVE RADIO INSTRUCTION (IRI) IN DISTANCE LEARNING

Unit Structure

8.1 Introduction

In the last six units, you have been exposed to the different concepts in radio instruction and necessary procedures to follow in the production of radio instruction. Having gone through these units, it becomes imperative to expose you to the concept of interactive radio instruction and how this delivery mode could be used to facilitate distance learning programme across the world. This is the focus of this unit.

8.2 Intended Learning Outcomes

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

- define interactive radio instruction
- describe how interactive radio instruction could be adopted to facilitate instruction in open and distance learning
- explain the basic steps involved in developing interactive radio instruction.

8.3 Main Content: Interactive Radio Instruction

The prominent feature of the traditional radio instruction is the one-way communication channel that allows transmission of information from the teacher to large population of students over a geographical region. In this mode of communication, it became practically impossible to get immediate feedback from the students, regarding a particular concept

that had just been disseminated. You will remember how people used to listen to news on big radio boxes in those days, without having the opportunity to give feedback on critical national issues. This made radio communication then to be one-way communication channel. However, the advancement in communication technologies across the globe had made it easy for radio instruction to become interactive and engaging than what was obtainable in the traditional setting.

8.3.1 Definition of Interactive Radio Instruction

The multi-way interaction had been introduced into radio instruction and this provides opportunity for teacher to receive feedback from students during the classroom instruction. The strategic roles of radio in teaching-learning process had been strengthened by the introduction of interactive radio instruction. Interactive radio can be defined as a radio programming concept and technique, which allows two-way communication between tutor and students, regardless of spatial and temporal distance. Two-way communication creates a viable instructional platform which brings together instructors, learners, and learning resources, even if they are not at the same place and same time. This is the basis of interactive radio instruction. Although radio is primarily one-way communication channel, different technological devices like emails and mobile phones had strengthened the extent of interaction in radio instruction.

Interactive radio Instruction was introduced to Nigeria in 2002 by the Literacy Enhancement Assistance Project (LEAP), a USAID-funded project implemented by Education Development Center (EDC), Research Triangle International (RTI) and World Education, with EDC

as the lead implementing partner. The objective of LEAP was to improve the ability of Nigerian children to read and write English and to do basic mathematics by the end of primary level in both public and Islamiyya schools. LEAP established close collaboration with the Federal, State, Local Government Education Authorities as well as local schools and communities. Thus, IRI had been an integral part of instructional process over the years. This teaching-learning mode had been found to have significant influence on students' Intended Learning Outcomes. Ho and Thukral (2009) found that exposure to interactive radio instruction (IRI) was associated with higher levels of student achievement, consistently producing learning gains among its participants of diverse ages and in diverse settings. In Haiti, Zambia, and Sudan, IRI mathematics instruction has shown positive results with respect to pre-test to post-test gains.

8.3.2 Using Interactive Radio Instruction for Distance Learning

Interactive radio instruction (IRI) is a distance education teaching-learning mode that combines radio broadcasts with active learning to improve educational quality and teaching practices. IRI has been in use for more than 25 years and has demonstrated that it can be effective on a large scale at low cost.

Considering the specific peculiarities of distance learners and the instructional space in open and distance learning, IRI can provide a veritable platform to engage learners in teaching-learning process.

https://www.edc.org/sites/default/files/radio_liberia.jpg

In interactive radio instruction, presenters, or instructors come together with learners in seamless interaction. To do this effectively, some cutting-edge communication technologies like mobile phones, emails, fax machines can be used to create interaction among the basic instructional elements (teachers, students and learning resources) in open and distance learning.

https://hausa.leadership.ng/wp-content/uploads/2018/09/telephone-ados.jpg

Learners can leverage the capabilities of these devices to provide feedback on the content at anytime from anywhere.

8.4 Steps in Producing Interactive Radio Instruction for Distance Learning

These involve three basic steps to ensure that the objectives of using interactive radio instruction are realized within the shortest possible time. The steps are discussed as follows:

Developing the strategic technology plan is the first step to produce interactive radio programme in distance education. The strategic technology plan provides the necessary answer and defining the components to accomplish successful interactive radio programmes.

This plan has seven major stages:

1) Defining the current needs and expectations of people in the high rhythm of life styles;
2) planning technology requirements to define the needed

communicational media;

3) examining personal sources and supports to analyze current situations and needs;
4) communicating with the stakeholders to construct a knowledge network with prospective society, business, school, universities, etc.
5) creating standards based on the mission statement to cope with the future challenges, 6) developing the goals and objectives to define the proposed outcomes clearly based on the ethic codes;and
7) creating the learning statement for interactive radio instruction. The plan must provide a specific description of the use of interactive radio programmes in distance education system.

The second step of producing interactive radio instruction is to implement the programme development process, which involves:

1) Working on project timelines to define the project tasks to work fine and punctually, and
2) budgeting to select the models for the broadcasting to estimate all costs and identify the fund sources. The timeline and financial plan have extremely vital roles to accomplish the IRIwithout any delay.

Basically, implementation of programme development process has four sub-steps:

1) Deciding the type broadcast (broadcasting styles, such as live or taped broadcasting, synchronously or asynchronously, or mixed),
2) Purpose (clarifying the objectives the radio programme will achieve),
3) Strategies (highlighting which critical thinking skills will be learnt and strengthened), and
4) Components (defining what kinds of the cutting-edge technological devices are needed).

Evaluating the implementation process is the last step of the programme, which involves:

1) receiving feedback from the learner and stakeholders to clarify whether the interactive radio programmes meet their needs and expectations, and
2) managing the change process to provide a helpful guidance for the system producers to create more open and flexible educational milieus. In the evaluation process, which is a continuous procedure, the data are collected from different sources, and then the results are analyzed.

8.5 Benefits of using Interactive Radio Instruction in ODL

Interactive radio instruction enriches the learning environment by engaging learners with learning resources within the learning space.

IRI provides feedback to the teacher on the realization of instructional objectives. This makes it appropriate for open and distance learning due to quasi separation between learners and tutors/facilitators.

The learning mode promotes incorporation of local media content into the instructional content as teachers from local communities are able to package instruction to transmitted over radio. This connects distance learners with their environments.

8.6 Summary

Interactive radio instruction provides a veritable platform to democratize learning in open and distance learning across different regions of the world. Thus, this last unit had exposed you to the fundamental steps in development of IRI as well as the instructional benefits derivable from using this mode of instruction in ODL. It is expected that stakeholders would leverage the capabilities of IRI to engage distance learners in teaching-learning process.

This last had exposed you to the meaning of interactive radio and how the medium could be used to facilitate instruction in open and distance learning. You have also learnt the basic steps involved in the development of interactive radio instruction. These steps include; developing strategic technology plan, implement the programmes development process and evaluating the implementation process. This would lead to the production interactive radio instruction that is

engaging and allows for feedback from the students.

8.7 References/Further Readings/Web Resources

Ho, J., & Thukral, H. (2009). Tuned in to student success: Assessing the impact of interactive radio instruction for the hardest-to-reach. *Journal of Education for International Development*, 4(2), 34-51.

McLeish, R. (1999). Radio Production: *A Manual for Broadcasters.* Fourth Edition. Oxford: Planta Tree.

Abbey, B. (2000). *Instructional and Cognitive Impacts of Web-Based Education*. Hershey, PA: Idea Group Publishing.

Adams, M. H. & Massey, K. K. (1995). *Introduction to Radio: Production and Programming*. New York: The McGraw-Hill Companies, Inc.

Olakulehin, F.K. (2016). Impact of Instructional Radio Delivery Mode on Academic Achievement of Distance Learning Students' in Computer Science. US-China Education Review B, 6, (12), 688-698 doi: 10.17265/2161-6248/2016.012.002

Volda.E., & Lidon, L. (2017).The effectiveness of Interactive Radio Instruction (IRI) within selected Primary Schools in Region Number Four (4). Social Science Learning Education Journal.http://dx.doi.org/10.15520/sslej.v2i9.38
INTRODUCTION.

8.8 Possible Answers to Self-Assessment Exercise(s)