OBAFEMI AWOLOWO

Inaugural Lecture Series 138

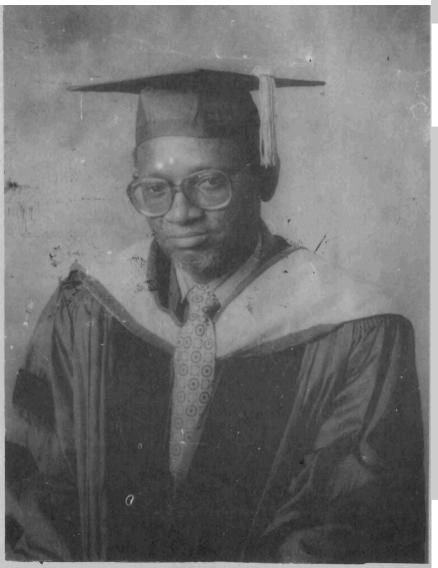
USING EDUCATIONAL MEDIA TO IMPROVE THE QUALITY OF INSTRUCTION

BY

AGUN.IBITAYO
Professor of Educational Technology



OBAFEMI AWOLOWO UNIVERSITY PRESS LIMITED



AGUN.IBITAYO
Professor of Educational Technology

USING EDUCATIONAL MEDIA TO IMPROVE THE QUALITY OF INSTRUCTION

By

Agun. Ibitayo
Professor of Educational Technology

An Inaugural Lecture Delivered at Oduduwa Hall, Obafemi Awolowo University Ile-Ife, Nigeria. On Tuesday, December 14, 1999.

Inaugural Lecture Series 138

Obafemi Awolowo University Press Limited, Ile-Ife, Nigeria.

Obafemi Awolowo University Press Limited. 1999

ISSN 0189-7845

Printed byObafemi Awolowo Press Limited Ile-Ife, Nigeria.

INTRODUCTION

It is considered necessary to introduce this lecture with brief general comments on the field of Educational Technology. There are three main reasons for this.

First, there is a need to put the lecture in its proper perspective with regard to its significance in the field of Educational Technology.

Second, Educational Technology is a relatively new field of academic and professional interest and pursuit in Education. Various terms and definitions have been used to refer to the field. Some of the well known terms include Instructional Technology, Audiovisual Instruction, Educational Media, Technology in Education, Media Education etc. Although a generally acceptable definition of the field is emerging, there are still some misconceptions, even among many people in leadership positions in education, as to what the field is all about and what the specialists are supposed to be able to do.

I recall a personal experience when I joined the services of this University. A senior colleague, who rose to the post of Chief Inspector of Education before she retired and was employed in the Faculty of Education, walked into my office and asked me to assist her to repair an electrical fault in her office. When I told her that I could not as I was not a technician, she reacted with some disbelief saying that she was told that I was an Educational Technologist. I said yes, but that an Educational Technologist was not necessarily a technician. She looked somehow confused and I had to repeat to her two more times that I was not a technician before she left still wondering aloud whether or not I was really a specialist in Educational Technology.

The third reason for these preliminary comments is that educational media form a very important aspect of the field of Educational Technology.

As a matter of fact, the use of educational media to improve the quality of curriculum and instruction is central to all academic and professional activities in the field of Educational Technology.

The brief comments now follows:

EDUCATIONAL TECHNOLOGY: THE SEARCH FOR A DEFINITION

Educational Technology has academic and professional interest in two main aspects of technology that have become important to the educational enterprise. These aspects, according to Agun (1977) are products and process or methods of technology. In this context, the products of technology refer to media equipment and materials which advancements in science and technology make available for recording, storing, retrieving, reproducing and presenting information for the purpose of instruction. Computer machines, projectors, amplifiers, cameras, television and radio sets, films, tapes, transparency sheets, etc are some of the well known products of technology in education.

The process or methods of technology on the other hand refer to the organisational and management techniques and strategies that are used in big industrial establishments, departments or arms of government and even the military to promote and enhance efficiency. Some of these techniques which include systems analysis, simulation and games, brainstorming, programme planning and budgeting system have been adopted or adapted in education to improve performance.

The interest of the field of Educational Technology in its early stages of development was, predominantly, with the products of technology, that is, the use of tangible things that were available and could be adapted for the purpose of improving curriculum and instruction. This

was the era of audiovisual aids and audio-visual instruction. The association of the field of Educational Technology with these terms was to persist for a very long time.

The introduction and influence of behavioural and management sciences changed the emphasis on products to the process or methods of technology in education. The overall effects of the change in emphasis could be summarised as follows:

- Emphasis was shifted on products, that is gadgets and equipment as
 aids to instruction to the process of instruction. The field of
 Educational Technology gradually became more interested in and
 be more concerned with 'how to use' rather than with 'what to use'.
- 2. The application of research results in the design of instruction was actively encouraged. This application has tended to provide some scientific bases for educational practices, especially the use of media materials in instruction.
- 3. A holistic approach to identifying and solving educational problems was encouraged. The fact that the educational enterprise is a system with subsystems that are intrinsically related was reemphasized by this approach.
- The development of procedures and methods for identifying, analyzing and characterising educational problems and for finding solutions to them was encouraged.
- The development of procedures and strategies for effective and efficient utilization of ideas and resources to improve the quality of instruction, and, *ipso facto*, of education was encouraged (Agun 1988).

These developments have influenced the current definition of Educational Technology as:

"a complex, integrated process involving people, procedure, ideas, devices and organization for analyzing problems and devising, implementing, evaluating and managing solutions to problems involved in all aspects of human learning (AECT, 1979)"

This definition by the Association for Educational Communications and Technology has become the most generally accepted definition of Educational Technology. It is a comprehensive definition. Even the application of modern developments in information technology to the educational enterprises has not changed the basic thrust of the definition.

MEDIA IN EDUCATION

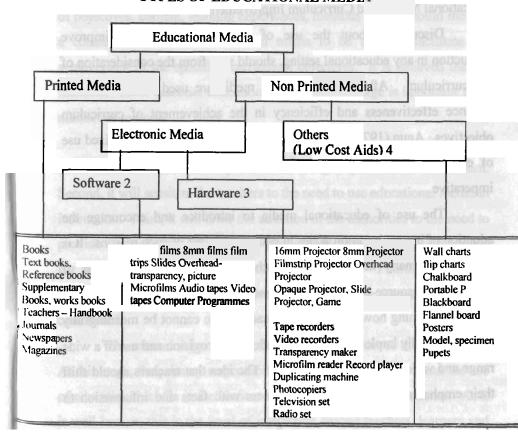
The list of media that are being used and can be used in education for the purpose of enhancing the effectiveness of instruction is inexhaustible. There are, again, many ways of categorizing the different types of educational media. There is the very simple categorization into projected and non-projected aids. Akanbi (1988) classifies them, first into locally produced and commercially produced media materials. He goes further to subdivide the locally produced materials into expensive and inexpensive materials. The division is guided by cost, the nature of use and the magnitude of resources required to support the use of the media.

Agun (1988), classifies them into two main groups. These are print and non-print media. The nonprint media are subdivided into electronic media and others, the so called low cost aids. The electronic media are further divided into software and hardware. He also assigns the specific informational function of each category of media types

Many people, even in education, get confused about the difference between software and hardware materials. This classification helps to remove the confusion. The functional relationship between software and hardware materials are emphasized.

One other significance of his classification is the prominence that is given to the print media. Many Educational Technologies tend to play down the position of print media like books, journals, magazines etc when discussing educational media. This classification tries to correct that. The fact still remains that the print media are the sources of most of the basic informational requirements for instruction in education.

TYPES OF EDUCATIONAL MEDIA



- Used for storing and preserving information; still the basic sources for facts and information in an educational system.
- 2. Used for storing information
- 3. Used for recording, transmitting or retrieving information.
- 4. Used mainly to help teacher's presentation of learning task.

The introduction of computers and satellite technology has increased, very considerably the level of sophistication and the versatility of media application in education. It has also increased the range of media that can be used to improve and enhance the quality of instruction.

EDUCATIONAL MEDIA AND THE IMPROVEMENT OF INSTRUCTION

Educational Media And Curriculum Improvement

Discussion about the use of educational media to improve instruction in any educational setting, should start from the consideration of the curriculum. After all, educational media are used to promote and enhance effectiveness and efficiency in the achievement of curriculum objectives. Agun (1976; 1988) gives reasons why a properly organized use of educational media for achieving curriculum objectives has become imperative.

The use of educational media to introduce and encourage the adoption of innovative approaches in education is one of such reasons. It is argued that many innovative approaches like the individualization of instruction, resource-based learning, renewed interest in problem solving methods, learning how to learn, team teaching etc cannot be meaningfully and successfully implemented without adequate provision and use of a wide range and variety of educational media. The idea that teachers should shift their emphasis from Loading the learners with facts and information to

helping them to acquire and develop the skills for learning how to learn has become very popular in education. However, this can only be accomplished successfully if there are a lot of media materials to support instruction. Moreover, the use of a wide variety of educational media, it is believed, will encourage teachers to apply their creative imagination and energy to the design and presentation of instruction.

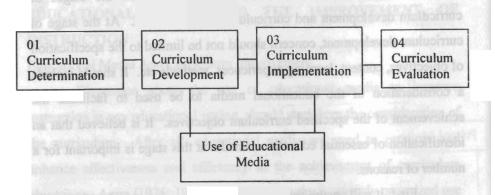
Agun (1982), suggests two critical stages in the consideration of the curriculum at which decisions should be made about the use of educational media to facilitate instruction. These are the stages of curriculum development and curriculum implementation. At the stage of curriculum development, concern should not be limited to the specification of objectives, content, learning experiences, methods etc. It should include a consideration of the educational media to be used to facilitate the achievement of the specified curriculum objectives. It is believed that an identification of essential educational media at this stage is important for a number of reasons.

First, it will ensure that teachers will appreciate the significance of educational media as an important and integral part of the curriculum. Second, it will sensitize the teachers to the need to use educational media in instruction. Third, it will draw the attention of the authorities to the need to provide such educational media as part of the conditions or requirements for an effective implementation of the curriculum. Fourth, apart from funds, the facilities for an effective use of media in instruction will be considered.

The second stage is that of the implementation of the curriculum. At this stage, the primary responsibility for making decisions about the use of educational media in instruction rests with the classroom teacher. As it is well known, this is the level of interaction among teachers, learners and

the learning environment. If the decision at the stage of curriculum development is followed, it is assumed that adequate provision of media materials and the facilities for using them will be made. Guided by the nature of the learning tasks, the characteristics of the learners, instructional conditions and other variables that can affect or influence the outcome of instruction, the teacher selects the media to be used for the purpose of facilitating the achievement of clearly stated learning objectives.

DECISION ABOUT THE USE OF EDUCATIONAL MEDIA



Assisting teachers to be able to make an appropriate selection of media materials to facilitate the achievement of specific learning outcomes has always been a matter of primary concern to the practitioners in the field of Educational Technology. In this regard, attempts have been made to develop what may be called a taxonomy of media characteristics in relation to specific types of learning using research information. The idea is to help teachers to be able to select, fairly easily, the appropriate medium or a combination of media to use if, for example, the learning task is the acquisition of facts, or principles, or concepts, etc. Some of the early attempts in the development of a taxonomy of media characteristics include those of Allen, (1967), Gagne (1965) and Boucher *et al* (1973).

THE NATURE OF INSTRUCTION

It is, perhaps, pertinent here to discuss the nature of instruction in order to be able to appreciate the significance of educational media in improving it. Afterall, instruction is the most prominent educational activity at the level of curriculum implementation.

The term instruction is preferred to teaching in this lecture because its characteristics are more discernable and therefore more describable than those of teaching. Teaching is a generic term which covers almost all interpersonal relations in which an attempt is made to influence the behaviour of people (Gagne 1963; Corey, 1971; Imogie, 1988). This can occur even in an unstructured situation. The events of instruction on the other hand, are more specifically directed towards more precise educational outcomes. It therefore refers to any specific means of controlling and manipulating the instructional events, the environment and the stimulus conditions in an educational setting in order to effect changes in the behaviour of the learner, (Gagne, 1979; Corey; 1971).

It should be added that behaviour is used here as a general term to refer to both intellectual and practical skills, competence, opinion, attitude etc.

Instructions, no doubt, is more learner oriented. Emphasis is placed more on what the learner can do after an exposure to the stimulus conditions than what the agent of change, the teacher, for example can.

This point will become obvious from the following characteristics of instruction (Agun, 1993).

- There is a deliberate attempt by an agent to bring about some significant changes in the behaviours of another person. In an educational setting, the agent is, usually, the teacher while the person whose behaviours are to be influenced for changes is the learner. It is also important to add that the changes to be effected are considered positive and desirable.
- 2. The specific types of changes desired from the learner's behaviour and the direction of change are always carefully planned and, hence, predetermined. This is why in all cases of instruction, the specific objectives to be achieved are clearly stated. The formulation and specification of objectives, therefore, form an important part of the planning and design of instruction.
- De able to exhibit or demonstrate after they have had exposure to instruction. This is very important because the success or failure of instruction can only be evaluated in terms of what the learners who were exposed to it could do. Revision or modification of instruction is also easy when objectives are clearly stated in terms of learners behaviour or performance.

There is an extensive body of literature on how to formulate and state objectives for instruction (Bloom, 1956; Krathwohl *et al*, 1964, Gagne 1965; Gagne and Briggs, 1979; Mager, 1975; Popham, 1969; Baker and Schutz 1971; Gronlund, 1970).

4. The events of instruction or the learning tasks are organized and presented in such a way as to facilitate the processes of learning,

especially the processes that are internal to the learners. This is why it is essential to undertake a rigorous analysis of the learning tasks in planning and designing manuetion. Lask analysis enables the teacher of instruction to establish the hierarchy of learning that is involved in the performance of a task. Information obtained from this exercise is used to sequence instruction, that is, the order in which various tasks to be mastered by the learners will be presented.

- The target audience of instruction is always a homogeneous group.

 This means that the learners in the group share many characteristics. Such characteristics include age, background experience, intelligence quotient, needs and aspirations etc.
- Interaction among the various components of instruction learners, events and the environment are actively promoted and encouraged.
 In this regard, the learner is encouraged to constantly respond to the stimulus situation.
- 7. Various forms of reinforcement strategies are used to keep the interest and the motivation of the learners going. One of such strategies is keeping the learners constantly informed of the status of their response and performance.
- 8. Instruction can take place without the physical presence of the teacher. Instruction through programmed learning, for example, whether presented through text, computer or other media, does not require the physical presence of the teacher before learning can take place.
- 9. There is always an evaluation at the end of instruction. This is after the exposure of the learners to the stimulus materials. The

purpose of this is, of course, to determine the extent to which the objectives stated for instruction have been achieved. Information obtained from the process of evaluation will become very important if instruction is to be revised or modified.

There are two main conditions under which learners are organised for instruction. These are group instruction and individualization of instruction. Group instruction can be in form of a large or small group depending upon the purpose of instruction and the nature of the learning tasks. Under individualization of instruction, the learners interact with the stimulus materials individually and progress at individual rate. Both conditions of organizing instruction are very important in education. Instruction should therefore be designed and presented to maximize the merits of each condition.

It will have become very obvious from the characteristics of instruction already discussed and the conditions under which instruction can take place that an effective use of appropriate educational media is required in order to achieve success in changing the behaviour of learners.

The Role of the Teacher in the Use of Educational Media

The teacher is, in every sense of the word, a communicator. His or her success in effecting a significant and meaningful change in the behaviour of the learner depends, to a great extent, upon the efficiency and effectiveness of his or her skills as a communicator.

Therefore, for very many obvious reasons, the teacher occupies a focal position in education, especially in instruction. Whether he is physically around in the classroom or not, the teacher, unquestionably, plays the dominant role in any situation in which instruction is taking place

As it is well known, it is the teacher who selects the learning tasks and experiences to which the learner is exposed. The teacher selects the methods, media and strategies by which the learning tasks and experience will be presented to the learner and by which an active and meaningful participation of the learner in instruction can be encouraged. The main responsibility of preparing and managing the environment in which instruction takes place is that of the teacher. It should be remembered that the teacher is also a role model to the learner. The teacher influences the growth and development of the world view and value orientation of the learner.

As it has been observed (Agun, 1996) the various functions which a teacher performs in relation to instruction makes it mandatory that he should be innovative and creative in his approaches. The different kinds of educational and curriculum objectives which instruction is variously designed to achieve require that he should constantly apply his creative imagination to the business of instruction. Again, the variety of topics and themes of instruction, the differences in the characteristics of learners and the conditions under which instruction takes place demand that the teacher should adopt various and varied approaches, (p240).

When a teacher performs these various functions effectively and efficiently, he is able to inspire the aspiration of the learner and to sustain the learner's motivation to succeed and even excel.

However, there is no way in which the teacher can perform these multivarious instructional functions effectively and efficiently using the traditional or conventional methods of instruction. The use of educational media, therefore, has become imperative if he is to succeed.

It is in recognition of this fact that Agun (1976(a), 1976(b), 1988) makes a strong case for the use of educational media in teacher education.

The first level of use is to help the student-teachers to acquire and develop adequate academic and professional competence and skills for their instructional functions after training. The second level is to enable the student-teachers to acquire and develop basic skills in the use of educational media to facilitate and improve instruction in the classroom. In this regard, it is believed that the use of educational media in teacher education will achieve the following objectives in the professional training of teachers:

- Teachers will become familiar with different media materials that are available for instruction including those that they can improvise;
- Teachers will acquire and develop skills in making appropriate selection of media materials with regard to curriculum needs, objectives of instruction, characteristics of learners and the condition of instruction.
- Teachers will develop skills in planning, designing and producing, at least, simple materials for their immediate instructional needs using, especially, readily available materials.
- 4. Teachers will be able to acquire the ability in using media materials appropriately and effectively including organizing and managing learning resources in their schools.
- Teachers will learn to realize and accept educational media as part
 of the essential tools they should use to achieve success in
 performing their instructional function.

Apart from all these, and importantly too, a teacher's competence in the use of media will enable him to adopt more creative and innovative approaches in instruction. He will use more varied methods and will

encourage more meaningful learner participation in instruction. Moreover, the ability of the teacher to use educational media in instruction will enable and encourage him to state clear and specific instructional objectives, analyze learning tasks, apply research findings in planning and designing instruction and to evaluate the outcomes of instruction properly.

It is generally well known that most teachers do not use media materials to facilitate and improve instruction. Even those who have had teacher training experience hardly ever use media materials in schools.

Many reasons have been advanced for this situation. They include ineffective methods of teaching courses in media education in the training of teachers, lack of educational media resources at the school level, and poor attitude of the average teacher to the use of media materials in instruction.

It has been discovered (Agun, 1987) that equipment, materials, facilities and personnel for teaching courses in media education in the training of teachers are grossly inadequate. It is therefore difficult to get the student-teachers acquire adequate basic competence and skills about the utilization of media materials to improve instruction. They are also not able to develop a strong, positive attitude to the use of media in schools.

Even when some teachers are interested in the use of media materials for instruction, they are not encouraged to do so. This is because media materials are not provided and facilities for producing simple materials by teachers are not available. Again, storage facilities are not provided for the few materials that are available.

The officials from the inspectorate unit of the Ministry of Education do not seem to be interested in whether teachers use media materials or not to facilitate learning. There is therefore no incentive or motivation for teachers to use media materials in instruction.

It is in the light of these observations that the following recommendations are made:

- The methods of teaching courses in media education should be more effective with emphasis on, among other things, competence in planning, designing, producting and using media materials for instruction. Adequate resources should also be provided for teaching the courses.
- 2. As teacher training is really a continuous exercise, opportunities should be provided for serving teachers to continually update and upgrade their competence in media education. Attendance of workshops, seminars and conferences is one of such opportunities. These opportunities will, hopefully, help to constantly renew teachers interest in the production of simple materials for their immediate classroom use.
- Schools should be encouraged to organize and manage functional learning resources centres. Different types of media materials will be kept in the centres for teachers use in the classroom.
- Governments, right from the local government level, should provide adequate funds to promote the use of media materials to enhance the quality of instruction in schools.

Organizing and Managing Educational Media for the Improvement of Instruction

The need for efficiency and effectiveness in the management of resources in any human organization cannot be overstressed. This is because good resource management is sine qua non to success in achieving organizational goals. It is in this regard that the organization and management of resources have become a very crucial aspect of the use of

educational media to improve the quality of instruction. Moreover, studies have shown that the way media materials are organized and used can determine, to a great extent, the degree of success to be achieved.

Educational media management is defined as the way materials, equipment, facilities and services are organized, managed and utilized to promote and enhance efficiency and effectiveness in instruction. The facts of efficiency and effectiveness are, of course, to be measured by the level of academic, intellectual and emotional growth and development in the learner.

The setting up of an institutionalised organizational structure has been recognized as the best method of managing educational media services to support instruction. This structure is in the establishment of centres. Such centres used to be called audio-visual centres, (AVC). This nomenclature has changed, however, because an audio-visual centre tends to conjure a picture of an assemblage of gadgets, materials and technicians to be used as mere aids to the teachers instructional efforts.

With a more wholistic approach to the use of educational media in education, the centres are currently called various names, such as:

Educational Resources Centre:

Educational Media Centre:

Teachers Resources Centre:

Instructional Resources Centre:

Multimedia Library;

Centre for Educational Technology etc.

The National Policy on Education (1986) does not only recognize that an adequate provision of media materials is important for instruction, but it also realizes that a proper organizational structure for the management and utilization of these materials is crucial to a successful implementation of the 6-3-3-4 system of education. For this reason, a substantial part of the section on educational services is devoted to the establishment of various centres where educational media will be provided, organized, managed and used to promote and support efficiency in instruction.

Irrespective of the name by which a centre is called, it is important that it should be a place where a wide range and variety of resources are made available to support instruction. Such resources will, of course, include equipment, materials, facilities and specialist services.

The concept and structure of this type of a centre is much more fundamental than is the case with the traditional audio visual centre. The current view of a centre has been influenced by the realization that success in the use of educational media to promote improvement in instruction cannot be successfully achieved by a mere assemblage of gadgets and materials operated by technical staff. This is because many other media related activities in education have started to play a very significant role in the selection and use of educational media in instruction. These activities include curriculum development and improvement, design and production of materials guided by information from research, initiation and adoption of innovative approaches in instruction, formulation of guidelines for the selection of appropriate materials and methods for instruction, evaluation of instruction etc.

The following reasons have been advanced for the increasing interest in and emphasis on the establishment of educational resources centres and for the role which such centres play in the use of educational media for instruction (Agun, 1977; Agun and Aduwa, 1988).

 An educational resources centre offers one of the best possibilities and, indeed opportunities for developing and encouraging a systematic and an integrated use of various media resources and services to facilitate the achievement of curriculum objectives. This arrangement provides a very unique opportunity for teachers, learners and educational authorities to examine how media resources can be related to one another, combined and be best used for the purpose of achieving the objectives of instruction.

- 2. There is an increasing interest in individualizing instruction as much as it is educationally desirable and practicable. This means that the individual learners with their differing background experiences, learning ability, interest, information needs and aspiration will receive greater attention than is possible under the conventional methods of instruction. However, individualizing instruction cannot be meaningfully and successfully adopted and practised in education unless instruction is supported with properly organized and managed provision of a wide range and variety of media materials, equipment, facilities and services.
- 3. Learning how to learn is an approach in instruction that has started to receive emphasis in recent years. It is now being argued that the social and economic survival of an individual may depend more upon his ability to respond quickly, positively and creatively to demands for ever changing skills and competence than upon his possession of particular skills or knowledge. However, it is believed that the acquisition and development of skills and the proper instruction is supported with an adequate provision of organized educational materials and services.
- 4. The phenomenon known as knowledge explosion has led to the growth and development of new areas of knowledge, topics, themes etc. It can, infact, be said that the world is being literally inundated with new information continuously. In response to this,

new methods of collecting, collating, processing, packaging and disseminating information are constantly being developed. It is, therefore, important that learners are provided opportunities of exposure to these developments. They should be assisted to acquire and develop skills in locating and using information sources appropriately and quickly. Again, this can only be achieved in an educational environment in which a wide range and variety of media materials are poperly organized to support instruction.

It is now generally agreed that the teacher should change his present predominant role of that of a presenter and dispenser of information to that of a manager of the learning environment, a motivator of learning and a counsellor. However, a teacher cannot assume these new roles meaningfully and successfully unless his work is supported with a properly organized and integrated use of different types of educational media.

The Function of an Educational Media Centre

The issue of what function an educational media centre should perform in order to make what has been said so far in this lecture meaningful is important. As it has been said, the primary purpose of establishing an educational media centre is to provide some institutionalized organization for the use of people, materials, equipment, facilities and ideas to promote efficiency and effectiveness in instruction. The functions of a centre therefore, are those that will promote maximum results from the use of its resources. In this regard, a centre should perform these functions.

- 1. Procurement, storage and circulation of a wide range and variety of media materials and services to support and facilitate instruction.
- Design, development and production of different types of media materials. In this connection, teachers should be assisted and encouraged to take active interest in production services.
- Organization of workshops, seminars and inservice training for teachers to acquire and develop basic competence in designing and producing media materials especially for their immediate instructional need. Opportunities will also be provided for them to continually update and upgrade their competence.
- 4. Provision of media facilities and services for learners to acquire and develop capabilities for information collection, processing and utilizatio9n in appropriate setting.
- Organization and encouragement of curriculum planning and development activities especially those that are connected with the production of curriculum materials, selection and utilization of these materials and evaluation of instruction.
- 6. Provision of constancy services to teachers and learners about the use of educational media to facilitate instruction.
- Serving as forum for teachers to meet to discuss common problems
 and issues of professional interest especially those that are related
 to curriculum and instruction.

It is important to emphasize that for a centre to be able to perform unctions efficiently, it must be provided with adequate personnel, equipment, materials and facilities.

treath enconigraph and behindred over an eligible to the considering street

Selection and Acquisition of Educational Media

One crucial point about the establishment of an educational media centre is how to ensure the appropriateness and suitability of the resources in the centre. It is also important to ensure that these resources are used maximally to enhance the quality of instruction. It is in this regard that the way the resources are selected becomes very important. All efforts must, therefore, be made to involve the people who will use the centre for instruction in the process of selection and acquisition of media materials.

Agun (1988), suggests that an educational media centre should constitute a committee for the purpose of selecting and acquiring media materials and other media related resources. The committee will also organize activities that will promote the effective use of the centre for the improvement of curriculum and instruction. Such a committee should be composed of subject specialists, curriculum specialists, media specialists and teachers.

The subject specialists will offer advice about the suitability of materials in terms of content and the coverage of subject matter. The media specialists are to advise on media types and media characteristics as they relate to specific objectives of instruction which media materials will be used to achieve. The curriculum specialists will take a broad view of media resources in terms of curriculum aims and objectives. The teachers are, of course, the most conspicuous users of media resources and services. Their involvement in selection and acquisition of media materials is therefore, one of the important ways of promoting their interest in and encouraging them to use the resources and services of a centre maximally.

The selection of appropriate educational media materials will be greatly facilitated if some guidelines are provided for considering them before they are acquired. Some kind of a selection format could be designed. The use of the format should help in ensuring the quality and the appropriateness of the materials in an educational media centre. Factors like the objectives for which materials are originally designed and produced, accuracy of content, coverage and treatment of the subject matter, the sound and visual quality, in case of non-print materials etc should feature prominently in the format. The following are examples of such a format:

Author Title Publisher Copyright Date					
Evaluation	Excellent	Good	Fair	Poor	
Author	of our of the	min like t	ues <u>u</u> j		
Objectives	dentities for	paries plan	aday and		
Accuracy	Go that then		indistrictly		
Coverage of subject matter	Christ Saf a				
Organization of content	of all dose, the				
Appropriateness of Vocabulary and style	steropen terlet		ipeoity)		
Physical Feature	Not Reco	latres in t) bebrei		
Others (Specify)		ed with v	ilog Hi		
Recommended [] Name of Evaluator	Not Recommen	ded[]	12		
Signature & Date					

nedle centre. Factors	Nonprint N	Nonprint Media Selection Form				
Type————————————————————————————————————						
Date Produced	nvolve the peop	ery importante substitution will				
Evaluation Criteria	Excellent	Good	Fair	Poor		
Objective	in velocity remain	e. ne.		TIDE PROISER		
Accuracy of Content	it prince the e	2000000		Seption 1		
Treatment of subject	Executions	Shich is d		diedly 3		
matter				Author		
Photography				n ibojdC		
Captions Narration		of saliton	dividual s	s escol		
Sound quality	a seleta types s		i issignue to	o province		
Others (specify)		A min of	einos to noi esse fice Arress of V	Trguladii O salah Appenipta		
Recommended []	Not Re	commended	[]	Tapical 1		
Name of Evaluator	Ve 1 Decommended 1			Alpers (Sp Secondario Anno 84 P		
Signature & Date	appropriate odes	ational mode	makera	willigh		

Attempts to provide some kind of institutionized organizational structure for the use of media in education in this country started with the establishment of audiovisual units in the Ministries of Education. The main purpose of the units, according to Okunrotifa and Agun (1977) was to provide leadership in the use of media materials to support instruction in schools, especially at the primary school level. The units were to acquire and distribute these materials to schools. They were to run workshops, organize seminars and conferences for teachers to help them acquire basic skills in the use of media materials to facilitate instruction. The workshops, seminars and conferences were also, to provide the teachers an opportunity to continually update and upgrade their competencies in the use of media.

The audiovisual units were headed, usually, by officers of relatively lower rank of the senior staff category in the ministry. They were posted out of the place as soon as they were ready to be promoted. In a sense, the heads were going in and out of the units like letters in the post office. This, of course, did not encourage long term planning and proper development of the units. Again, the fact that officers of relatively lower ranks were made heads would indicate that not much influence could be exerted at the level of policy making in terms of funds and resources to be allocated to the units. As a result of all these, the impact of the units on the use of educational media at the classroom level was very minimal indeed.

In recognition of the current thinking and approaches in the use of media in education, the former audiovisual centres in the Ministries of Education in the country have been redesignated with various names as Educational Technology Centre, Educational Resources Centre, Instructional - Materials Production and Curriculum Development Centre etc., with enhanced status. They are now headed by very senior officers in

the Ministries. These are officers who, hopefully, can and will influence decisions about what resources to be allocated to the centres.

At the Federal Ministry of Education level, the status of the Federal Schools Broadcast and Audiovisual Aids, Development Centre was enhanced to become the National Educational Technology Centre with a wide range of functions, facilities and services. The centre is located at Kaduna and it is expected to play an important leadership role in the promotion of the use of educational media for the improvement of instruction in the educational system of the country.

It is important to observe that the media centres in this country have not had any appreciable impact on instruction in schools. This is, primarily, because they are unable to perform their functions as they should for lack of adequate funding to provide equipment, materials, facilities and personnel. For quite some time, the centres in the ministries of education have not been organizing workshops, seminars and conferences for teachers. In short, the centres are not achieving the objectives for which they have been established.

The need for an organizational structure for the use of media to improve the quality of instruction in the universities in this country arose from the tremendous rise in the enrolment of students in courses, especially the core courses. There was also a large increase in the sheer number of courses being offered for various programmes. This was also the case with the Colleges of Education to some extent.

It was believed that a properly organized use of media resources would make up for the deficiency in academic staff strength and shortage of facilities in the face of rising student population, enhance the instructional efforts of the academic staff on ground and provide opportunities for introducing new and varied approaches in instruction (Agun & Ogummilade, 1987).

Over the years, the responses to this need for an organizational structure for the use of media in instruction has taken the form of establishing units variously called Centre for Educational Technology, Instructional Resources Centre, Educational Technology Centre etc. or departments that run academic programmes and provide media related facilities and services.

These units or departments are expected to provide a rationalized approach to the acquisition and utilization of media resources in instruction, build a pool of materials, equipment and services in instruction, and provided professional assistance to teachers and students about how to integrate the use of media resources with other approaches for the purpose of facilitating the achievement of the objectives of the curriculum and instruction (Imogie, 1984, Agun, 1986).

Attention has been drawn to the role that foreign aids have played in the use of educational media to improve instruction at the tertiary level of education in this country (Okunrotifa and Agun, 1977). Prominent among the sources of foreign aids have been the UNESCO, UNDP, UNICEF and organizations like the Ford Foundation, Carnegie Corporation etc. The early audio-visual centres in the former Advanced Teachers Colleges, now called College of Education, and media related programmes in some universities were assisted by these foreign sources.

Apart from providing much of the funds, equipment and materials for these early audio visual centres and media programmes these organizations provided specialist personnel and sponsored specific projects to promote the use of media in education. Assistance was also given in the training of media personnel.

It is safe to say at the stage, that result from the efforts to promote the use of media to improve instruction at the tertiary level of education has been generally poor. The level of interest among the generality of lecturers to use media to support and facilitate instruction remains very low indeed. The range of media materials that are used is also very small.

Some of the reasons for this situation include the following:

- 1. There is always some discrepancy between institutional intention to use media to improve instruction and the actualization of this intention with regard to the provision of funds for materials, equipment, facilities and supporting staff. All these are necessary for an effective and successful implementation of programmes in media utilization.
- The degree and scope of involvement of staff in the introduction of media to improve instruction is generally not far reaching enough to sensitize the staff to the need to use media.

Organizing The Use of Media at School level

An emphasis on an organized use of educational media for instruction must have become very clear in this lecture so far. This is because it is one of the important conditions for success.

Therefore, in order to encourage the use of media materials at the school level where, indeed, they are actually most needed to facilitate and improve instruction, learning resources centres should be established. Unfortunately, there has been no serious attempt to do this for the primary and secondary schools in this country. Even, the traditional library hardly exists in most schools.

Ways of transforming the existing traditional library into learning resources centres in schools have been suggested (Agun, 1977). Apart

from providing adequate print and nonprint materials, equipment and physical facilities, a career structure should be established for school media specialists.

Two types of learning resources centres are suggested for the school system (Agun, 1994). The first type will be centres that are located in each school. In order words, each school should have a learning resources centre. This should be adequately equipped to meet the basic instructional need of the school. This will, of course, include facilities for planning and producing simple materials for immediate instructional purposes.

The second type will be centres that are located in some strategic places for a number of schools. The level of activities and of provision of materials, equipment, facilities, personnel and services will be much higher than what can be available in the centres located in each school. The primary and secondary school teachers and even their pupils should be encouraged to use the centre nearest to them.

A users committee comprising members of staff from the schools which share the use of the resources in the centre should be formed. The committee will plan the activities of the centre including the time-table for use. The accompanying diagram is an example of a centralized learning resources centre.

at of Educational Technology to perform the duel or

School B School B School C School C School C School C School D School E (Agun, 1994)

This co-operative use of learning resources centres among schools at the primary and secondary school levels is advocated especially in situations where it may be difficult to provide well equipped and adequately funded learning resources centre in each school.

Department of Education Technology and The Use of Educational Media

Since this is the first inaugural lecture to be given in the department of Educational Technology in this university, and indeed, in any university in Nigeria as far as I know, it is considered pertinent to say a few things about our department.

In 1975, the Audiovisual Centre of this university was redesignated the department of Educational Technology to perform the dual roles of

running academic programmes, and of providing university-wide media facilities and services to support instruction especially in GNS Courses where there were large student enrolments. Our department thus became the first department of Educational Technology in a Nigerian University.

With this new status, the department was fully conscious of its unique position not only to promote the use of media to facilitate instruction in the university but also to provide academic and professional leadership in encouraging effective and efficient use of media resources in the educational system of this country. Therefore, apart from continuing to perform the services for which an audiovisual centre was formerly established, the department designed and introduced undergraduate and postgraduate courses to meet the demands for effective use of media resources in the school system. Specifically, the objective of the department was to produce the following categories of media specialists:

- School practitioners who will be able to design, develop and produce instructional materials, and who will be able to implement instructional methods to achieve specified curriculum objectives;
- Research workers in Educational Communications and Technology who will contribute to the knowledge base in the field;
- Media specialists in educational institutions of all types and at all levels;
- Educational media producers, managers and practitioners in the media houses.

The undergraduate courses are a contribution to the degree programmes in the Faculty of Education. The primary purpose of these courses is to provide an opportunity for student-teachers to acquire and develop basic capabilities in planning, designing, developing, producing and using appropriate media materials for instruction. The post-graduate courses on the other hand lead to the award of masters and Ph.D degrees in Educational Technology.

I want to say, with a great sense of humility and pride, that I have the privilege of being the first Head of the Department to get these academic programmes started.

While the interest and the commitment of the university as regards the use of educational media in instruction lasted, the department was able to provide media facilities and services not only to support instructions especially in the General Studies courses usually called GNS, but also to assist lecturers in other courses and in some research.

The department played a very conspicuous role in the workshop that was organized for the newly recruited lecturers by this university in 1975. It also made an important contribution to the 1977 workshop on training in methods of teaching at the university level. The workshop was sponsored by the Committee of Vice-Chancellors and was held on this campus.

For some years running, the department organized workshops and seminars, on behalf of some Ministries of Education, for teachers. This was when the Ministries had money to sponsor the workshop and seminars.

In 1982, Dr. (Mrs) Soremekun and Prof. Akanbi proposed the establishment of a Teaching Improvement Unit in the department. The purpose of the unit was to provide an institutionalized method of constantly working with lecturers to devise ways of identifying problems that are related to instruction and the design strategies for providing solutions to these problems. It was planned that the unit would achieve its objectives by organizing workshops and seminars on teaching methods and improvement. It would also provide professional constancy services to

lecturer colleagues on how to plan and design courses, select and use appropriate media for instruction and evaluate the outcome of instruction.

A symposium which featured a number of very senior members of the academic staff of this university was organized to propagate the idea and to seek the support of the university authority for its implementation. Nothing came out of this because the support and the encouragement envisaged from the university was not forthcoming. Actually, the period of neglect of the department in terms of providing funds for equipment and materials and even of employing professional staff started about 1982 and progressively worsened over the years.

Ogunmilade (1978) and Agun & Ogunmilade (1987) have tried to evaluate the use of the television facilities of the department to teach some courses, especially the General Studies courses. These studies established the contribution of the department in this regard.

It is quite gratifying to remark that the department has achieved some measure of success with its postgraduate programme through which it tries to produce professionals who will provide leadership in the use of educational media for instruction in the education system of the country. Quite a number of people have successfully gone through the programme. Many of them now hold leadership positions in the Colleges of Education, Ministries of Education, Media houses and the Army. Some have become university lecturers training teachers who will eventually teach in the school system.

The department can do much more than it is currently doing if it receives the necessary encouragement and support in terms of adequate resources from the university.

References

CONCLUSION

It must have become very clear by now that the purpose of this lecture is not to establish whether or not educational media can be used to improve the quality of instruction and that of education generally. Common sense apart, research studies have shown that they have been used, are being used and can be used to bring about a significant improvement in the performance of the learners in the cognitive, affective and psycho-motor domains.

Rather, the primary concern of the lecture is to discuss the ways educational media can be used with maximum facilitating effects on instruction. An important implication of the discussion so far is the need for governments, educational authorities and institutions, to demonstrate sufficient interest in and commitment to the use of media resources in education. The interest and commitment should be evident in the provision of adequate funds for equipment, materials, facilities and personnel. It is also important that a proper organizational structure be put in place for the use of media resources in education.

Lastly, I thank God and the University for this occasion and everybody for being here.

- Association for Educational Communications & Technology (AECT)

 (1979). The Definition of Educational Technology.

 Washington, D.C., Association for Educational Communications & Technology.
- Agun, I. (1977) "Using Technology in Education in African Countries@ <u>Universitas</u> Vol. 6, No.2, pp. 109-118.
- ----- (1988) "Educational Media Management". In Agun, I & Imogie

 A.I. (eds) (1988) Fundamentals of Educational

 Technology, Ibadan: YBooks.
- ----- (1976) "Instructional Media and Curriculum Innovation". *Oguaa Educator* Vol. 7 No. 1 pp. 15-27.
- ----- (1982) "The Place of Instructional Materials in Curriculum

 Development" Education and Development Vol. 2 No.2

 pp. 503-510.
- ----- (1993) Instructional Design (To be published by the Macmillan

 Nigeria Publishers Limited in the Obafemi Awolowo

 University Series in Educational Studies).
- ----- (1976a) "The Use of Instructional Media for Teacher Education in Developing Countries". *Kenya Education Review* vol. 3, No. 1 pp. 25-34.
- ----- (1976b) "Importance of Audiovisual Instruction in the

 Associateship Diploma in Education in Nigerian
 Universities". West African Journal of Education. Vol.

 XX No.2, pp. 109-200.

- Programme on the use of Instructional Materials in the Primary Schools" In Imogie, A.I. & Aduwa, S.A. (eds)

 Educational Technology and the 6-3-3-4 System of Education. pp. 54-66.
- ----- (1977) "Strategies for Developing Resources Centres in

 Nigerian Secondary Schools" Nigeria Educational Forum

 Vol. 3, No. 1 pp. 5-15.
- ----- and Aduwa, S.a. (1988) "Educational Resources Centres, (To be published by Longman Nigeria Limited".
- ----- and Ogunmilade 91987) "Evaluation of Instructional Television at the University of Ife". *African Journal of Research in Education*. Vol. 2 pp. 76-87.
- ----- (1986) "Instructional Support for Educational Technology: The case of Colleges of Education" (Paper presented at the National Symposium on Status and Trends in Educational Technology organized by the National Educational Technology Centre, Kaduna).
- ----- (1994) "Resource Management in Qualitative Education and Educational Technology" Journal of Nigeria Association of Educational Media and Technology vol.4. No.1., PP. 437-449,
- ----- (1996) "Effective Teaching Through Technology" Journal of

 Nigeria Association for Educational Media and

 Technology Vol 6. No.1., PP. 228-249
- Akanbi, Kunle (1988) "Selection, Utilization and Evaluation of Instructional Media". in Agun, I & Imogie, A.I. (eds)

- (1988) Fundamentals of Educational Technology. Ibadan: YBooks,
- Allen, W.H. (1967) "Media Stimulus and Types of Learning" *Audiovisual Instruction* pp. 27-31.
- Baker, R.L. and Schutz, R.E. (eds) (1971) Instructional Product

 Development: (Southwest Laboratory for Educational

 Research and Development) New York: VAN Nostrand

 Reinhold and Co.
- Bloom, B.S. (1956) Taxonomy of Educational Objectives. Book 1, Cognitive domain. London: Longman Group Ltd.
- Boucher, B.g, et al (1973) Handbook and Catalog for Instructional Media

 Selection Englewood Cliffs, New Jersey: Educational

 Technology Publication.
- Corey, S.N. (1971) "Definition of Instructional Design" in Merrill M.D. (ed) *Instructional Design: Readings*. New Jersey: Prentice Hall.
- Federal Republic of Nigeria (1986 Revised) National Policy on Education,

 Lagos: Nigeria Educational Research and Development

 Council.
- Cagne, R.M. (1965) *The Conditions of Learning*. New York: Holt, Rinehart & Winston.
- Cagme. R.M. and Briggs, L.J. (1979) Principles of *Instruction Design*. New York: Holt, Rinehart & Winston.
- Gronlund, N.E. (1970) Stating Behavioural Objectives for Classrooms
 Instruction. London: Collier-Macmillan.
- Imogie, A.I. (1984) "Using Centralized Educational Technology Units to Create Institutional Readiness for Educational Media

- Innovations in Nigerian Universities". Nigerian Audiovisual Journal Vol. 1 No. 3 pp. 175-199.
- ----- (1988) "Principles of Instructional Systems Design". In Agun I. and Imogie, A.I. (eds) (1988) Fundamentals of Educational Technology Ibadan: YBooks.
- Krathwohl, D.R. et al (1964) Taxonomy of Educational Objectives

 Handbook II: Affective Domain. New York: David

 Mckay Company, Inc.
- Mager, R.F. (1975) *Preparing Instructional Objectives*. California: Fearon Inc.
- Ogunmilade, C.A. (1978) Television in Higher Education: The Application of Instructional Television to General Studies Courses at the University of Ife, Nigeria (Unpublished Dissertation submitted to Indiana University, Bloomington, Indiana, U.S.A.)
- Okunrotifa, P.O. and Agun, I., (1978) "Educational Technology in Nigeria". In Klasson, F.H. & Leavitt, H.B. (eds) (1978) Education for Development: International Perspectives on Expanding the Role of Teacher Education. Washington D.C. International Council on Education for Teaching.
- Bscramm, W. (1973) *Big Media, Little Media* Washington D.C.: Information Centre on Instructional Technology, Academy For Educational Development.
- Popham, W.J. (1969) Instructional Objectives. Chicago Rand Mcnally.