Multimedia Approach in Teaching and the Attainment of Secondary Education Goals

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Abstract

Educational media contribute immensely in the attainment of educational goals at all levels, Media approach is an aspect of educational technology that discusses the utilization of materials and equipment in solving educational problems for positive attainment of educational goals at all school levels. This paper, therefore, discusses educational, media, multimedia approach to instruction, the Nigerian experience, and remedy to problems of multimedia approach in teaching and learning at, the secondary school level for quality assurance

Index terms— multimedia, teaching and attainment.

1 I. Introduction

ib in Ibe-bassey (1988) described educational technology from main perspectives; Teaching machines and equipment:-move projector, tape-recorders, computer, slide programs, overhead projects, and other mechanical instructional materialstechnology is regarded as an assembly of technical materials and resources for education purposes-in other words for technology in education.

The mass communication system point of view: that is broad educational broad casting that involves educational radio, television, satellites, and cable television use in educating a large number of people.

Others, perceived educational technology as a psychological research laboratory where experiments are conducted on learning within closed doors using ideal conditions of learning on human beings and animals thus:-restricting educational technology to the application of psychological models or principle under learning conditions.

Virtually, these are aspects of educational techology because of each one aimed at focusing on material, products, and processes that could help solve. Educational problems Educational technology is a problem -solving approach that utilizes both process and products aspects in solving educational problems. The attainment of educational goals needs to be planned, designed, and organized in such a way that the learner at a particular level. The achievement of educational aims depends on the quality of instruction given to the learner at a particular level. The instructional system component needs to be planned, designed, and organized in such a way that learner who is the focus benefits through purposeful and meaningful learning acquired from schooling.

2 II. Concept of Education Media

Association for educational technology (1977) defines educational media as born of the communication revolution which is be used for instructional processes alongside the teacher, textbook, and blackboard. The association further indicated that educational media are also self-supporting devices that can present a complete body of information in the teaching learning process. Agung (1988) defines educational media, thus:

Materials that can be used to record, store, preserve, and transmit or retrieve information. Teachers and learners can refer to use them as sources to obtain knowledge, new idea and to acquire new skills and competencies. Teachers can also use them to present learning task, when properly used; they can help to make the message of the teachers more valid, interesting, and intelligible. Akude (2005) posits that all forms of communication through which teaching and learning are facilitated are referred to as educational media. Farrant (1980) called it educational resources, Onyejemezi in **??**1990,1996, 2001 and 2004) referred to it as educational resources,

curriculum materials, and teaching materials. Babalola (2004) saw it as resources and even, curriculum materials (Akude 2005).

Education media are materials or equipment the teacher uses to stimulate the learner's natural gateway to learn during the teaching and learning process for purposeful and meaningful learning to take place. Awotua-Efebo (1999) opines that no matter the classification of these media, it is not to lose sight of the purpose (.i.e. instructional objectives) which is being used.

3 III. Multi-Media Approach to Instruction

According to kemp (1980), multimedia has to do with sequential use of a variety of instructional, "D media, either for presentations to groups or for independent study by students. Example of multimedia is the use of overhead transparency and motion picture with slides a classroom presentation or the use of chat, audio cassette recording and a filmstrip for the achievement of a set of objectives for a topic.

The media can be still pictures, sound, motion video, animation, and text items combined in a product whose purpose is to give information.

Multimedia is a combination of media that appeal to more than one or two sensory channel (vision, taste, feel) in the teaching and learning process to achieve the stated objectives of the learning. it could be simultaneously (audio visual) or in isolation.

Instruction is to the teacher as learning is to pupils/students, therefore, multimedia approach to teaching is when the teacher applies varieties of media that appeal to more than one senses with the aim of change in the learner's behavior. Furthermore, multimedia learning relates to a planned interaction between the learner and the learning activities are designed utilizing varieties of media for the learner and those learning kits, self instructional-packages to achieve stated specific obejctives of a particular content unit or topic. Multimedia could be used to teach an individual, a small group, or a large class size.

4 IV. Multimedia in Teaching and Learning at the Secondary Level; the Nigerian Experience

As earlier indicated, the learner's natural gateway to learning needs to be stimulated for purposeful and meaningful learning to take place. The implementation of the education policy to achieve the goals and values of education among others by the government is the approval of utilization of modern educational techniques to improve upon at all levels of the education system (National policy on education 2004

In addition to that, Nation policy on education defines secondary education as education children receive after primary education and before the tertiary stage. Students should take a subject that are grouped under core vocational electives and non-prevocational elective at both junior and secondary school level.

Secondary education prepares the learner for tertiary level and at the same time, gets the recipient ready to function effectively in the community through being self-reliant and acquiring skill for shared responsibility. Instruction at the secondary school level needs to be effectively and adequately facilitated for positive attainment of the secondary education goals. Facilitation of instruction, according to of form (1996) is an important aspect of curriculum planning and implementation which has to do with enhancement of teaching and learning activities.

Learning has been found to be optimally enhanced by adequate and appropriate selection and use instructional materials by the teacher and the teacher and the learner as well. It is therefore, very essentials that teachers are acquainted with the knowledge with which to select and use learning resources effectively for the attainment of set goals.

It is pertinent therefore to admit that effectively facilitation of instruction should involve the use of varieties of educational media/device, multimedia techniques by both the teacher and learner the successful and maximal achievement of the specific objectives of the lesson contents.

Virtually, no two individual is the same, that is why there are different ways and styles individual learn, Effective and efficient teaching and learning take place with a condition means subjecting a learner to the materials, objects, equipment (instructional, media), for learning to take place. The secondary school learner needs to be provided with such; multimedia play vital roles in leaning because, it attracts more than one sensory channels. Dike (1988) admits that audio visual resources contribute to teacher effectiveness by helping students understand key concepts and principles basic to the understanding of certain subjects. Futher more, Dale (1969) asserts that all teaching can be improved by the use of audio visuals because, the help to make the learning experience memorable.

Onyejemezi (1996) posits that audio-visual materials when well utilized, concretize experiences, make learning meaningful, a high degree of interest, offer a reality of experience which stimulates self-activity on the pupil, leads to variety and variation in learning among others.

Previous research findings have revealed that in spite of the benefits in the use of multimedia; it's used in Nigeria schools is at its low ebb **??**Onyejemezi, 1988). Akude (1999) revealed that instructional materials were poorly utilized amongst secondary school teachers in Imo state. **??**ke (1988) opines that teachers lack manipulative skills with which to utilize these materials, adding that worst still was that these materials were not available for use. Ifegbo (2003) carried out a study on the availability, adequacy, and utilization of human and materials in the learning of science at the primary level and found out that only graphic materials, models and some graphic

display boards were available in public primary schools in Imo state. The same result is not far from public secondary schools. There were no projectors nor audio-visuals (multimedia) to carry the content of instruction are ignored; hence the persistent human to human teaching still prevails in our secondary schools.

Nwoji (2000) conducted an experimental study compares. The effectiveness of videotaped instruction (VTI) an audiotape instruction (ATI) in the teaching of introductory technology epics for JSS1 students in Nsukka urban education zone of Enugu state. The VIT group had a mean score of 14.07 while the ATI group obtained a mean score of 9.08. Similarly, Okwo, Osuagwu and Aguekwe (2003) utilized multimedia approach on students achievement in poetry to SS3 students offering interactive in English in WAEC from the two oldest boys and girls secondary school in Nsukka urban of Enugu State using two treatments of multimedia made and text only mode. The result revealed highly positive learning on multimedia mode group with adjusted mean score of 23.30 and 15.12 respectively while those taught with 'text-only' mode an adjusted mean scores of 18.43 and 8.70 on the theme and poetic devices respectively.

Furthermore, Onydira, Agoro and Fabiyi (2004) utilized multimedia instructional strategy on sixty (60) JSS students on intergrated science using difficult topics of metal and non-metal, Atomic theory, Genetics, Hormones and motivate more students to join the science class.

Akude (2005) taught geography with videotaped lessons to SS3 students in Owerri north local government area in Owerri educational zones of IMO state and found out that teachers should employ a multimedia instructional approach to teaching as this motivate more students to join the science class.

Actually, these are research findings, yet it is a true that these materials are not seen in our public secondary schools due to non availablity of these materials to teachers, lack of needed skills to manipulate these gadgetries for learning, financial constraints, lack of resourceful and above all, proactive inhibition on the part of teachers who find it difficult to accept teaching in a technology-based environment. Thus dubbing of old notes and talk-chalk approach are still in vogue at all the levels of our educational system.

5   V. A Multimedia Approach to

Instruction: the way Forward Media-mix helps the learner to consolidate what is learned, and the benefits of such an approach to instruction need to be harnessed for factual and better learning to take place at the secondary school level. Unfortunately, such media are virtually lacking in public schools. To remedy the situation. The, following are suggested: 1. The educational services of the. National policy on Education should be attended to and provided. 2. National Educational technology center (NETC) that is now attached to the National open University of Nigeria (NOUN) should be revitalized to enable them to carry out effectively the design and production of instructional materials (multi-media inclusive) for secondary schools subjects.

3. Curriculum planners should ensure that multimedia be included as curriculum materials to be used either in combination or in isolation in the learning process at the secondary school level. 4. Educational resources centers (ERC) at the federal, state, and local government levels should be encouraged from time to time to produce and store these materials for secondary schools to borrow them. 5. National Association for Education and media technology (NAEMT) should organize workshop and education media exhibitions for teachers to enable them to be aware of some of these materials and at the same time, learn how to manipulate such materials.

6   VI. Conclusion

Multimedia approach to instruction when effectively selected and utilized, will help in attaining a better understanding of the concept taught and more learning experiences are gained. This paper succeeded, therefore, defining educational media. A Multimedia approach to instruction media approach teaching and learning are done above all, teachers who are the facilitators and the implementers of the planned curriculum should be effectively and efficiently trained on the use of multimedia approach especially technology-based and to avoid proactive inhibitions and for attainment of secondary education goals. [1] [2]

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6 VI. CONCLUSION

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