

MODERN TRENDS IN THE USE OF EDUCATIONAL TECHNOLOGY IN THE CLASSROOM

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ABSTRACT: *Educational technology as a term and as a field of specialization is considered to be a relatively new field in education. Based on this, the concept sounds new to a lot of people including a good number of teachers and learners. It is yet to be well rooted in the Nigerian educational system. However, it should be noted that its newness is in terms of terminology, in the redefinition of concepts, in the realignment of child learning psychology with behavioural oriented classroom activities and in the matching together of curriculum and human resources. It is important to note that elements of Educational Technology have always been present in educational practices in the Nigerian schools which brought about gradual changes in the use of educational technology in the classroom. This paper therefore examines the application of educational technology to teaching and learning in the classroom and educational technology as a solution to the problem of curriculum practices in the Nigerian education system. Some generalizations on the effective use of educational technology in the classroom settings, conclusion and recommendations were made.*

KEYWORDS: Educational Technology, Classroom

INTRODUCTION

Technology is the application of science to make the community, society and the world in general more efficient. It is an application of scientific knowledge in industrial methods (Deacon 2011). Technology can also be viewed as the sum total of the ways in which a social group provides themselves with the materials of civilization. Thus, science and technology go hand in hand. Science refers to the “know-why”, while technology refer to the “know-how”, and so one can deduce that technology is a systematic approach in an integrated process to achieve practical purpose or achieve an end product (wisdom 2010). Technology today makes problem solving much more possible for man in all fields of life and especially in the areas of agriculture, communication and of course, education at all levels.

Educational Technology is the application and organization of people, method, techniques, equipment and materials, systematically and scientifically in order to solve teaching and learning problems, as well as improve on the education system worldwide (Delhin 2012). Though educational technology in its nature is relatively new, and so it means different thing to different people, but apart from various definitions and interpretations from scholars, experts and professionals at various times and stages of educational technology, the fact still remains that the successes which the field has attained within the short time of its evolution has made people of different backgrounds, training and experiences to hold different views about technology and education respectively. Also nature, stages and scope of educational technology itself has gone a long way to helping both the teachers and students to acquire effective teaching and learning.

According to Walter (2011), educational technology as a systematic and scientific approach which is a generally acceptable definition refers to a systematic way of designing, and evaluating the total process of teaching and learning in terms of specific objectives, based on research on human and non-human resources to bring about more effective instruction. In view of this, it therefore signifies an analytical procedure which is characterised by the identification of an instructional problem, setting of objectives, designing of learning experiences, selection of relevant instructional materials and of course identifying the modern trends in the use of educational technology in the classroom settings.

APPLICATION OF EDUCATIONAL TECHNOLOGY TO TEACHING AND LEARNING IN THE CLASSROOM

Educational technology is considered to be an important discipline in the field of education. The federal government of Nigeria placed educational technology under educational services. Also the joint consultative committee (JCC) reference committee, being one of the important federal government organs is responsible for the formulation and implementation of educational technology principles and practice especially at the three tiers of the educational system in Nigeria, primary schools, Secondary schools and Tertiary institutions. Educational technology at Primary and secondary levels of education attract more value as it is the formative stage of education where all subjects are taught. At this level of education, the use of educative films, television, tape recorders and other aids are probably of more value in teaching almost all the subjects because they bring the world of life right into the classroom (Hale 2011). Educative films are very useful in stimulating the learners thought, imagination as well as decision. It also portrays a realistic picture, posters, charts and other visual materials. At primary and secondary level of education and more importantly at pre-primary education, national policy on education made it clear that contribution of educational technology is very important, though indispensable. There is need for system approach to instruction which is one of the important features of educational technology. Since little children are encouraged in cultivating the spirit of enquiry and creation through the exploration of nature, the local environment, playing with toys, artistic and musical activities and so on, therefore it calls for the implementation of the practice of educational technology by the care-givers or the teachers. He maintained that to make toys, dolls wooden blocks, furniture, games, posters, charts, papers, compose songs and poetry including folk tales and so on, the application of educational technology is inevitable. Educational technology at higher institutions of learning, especially in the universities and colleges of education is valuable. In most universities and colleges of education with the available facilities, the practical aspect is taught. However, there are few lectures in some to the practical areas such as micro-teaching sessions that help students exercise, in designing, production and utilization of instructional materials. Students are encouraged to produce graphic materials like posters, charts, flash cards, flannel graph and so on. In few cases they are also taught how to construct letters in block forms which means improvisation of teaching materials and equipment using locally available materials. Students are as well motivated to operate modern teaching equipment like the microcomputer, the overhead projector, the opaque projector, the slide projector, and film projectors. Relate to this, is audio recording of lessons and the use of language laboratory, especially for language students. There are many problems facing the education sector in Nigeria though it has been revealed that educational technology is a system approach to solving educational problems (Davis 2010). Prominent among problems facing the education sector are:

- Overcrowded classrooms
- Shortage of qualified teachers
- Inadequate funding
- Inefficient teaching method
- Exponential growth of information
- Inappropriate curriculum
- Rote learning
- Insufficient school facilities
- Non-professionalization of teaching
- Inadequate and inappropriate use of instructional materials.

Most of the above enumerated problems facing the education sector can be solved through educational technology. Educational technology caters for individual's academic needs and abilities through the use of modern instructional technology such as the Computer Assisted Instruction (CAI), and programmed instruction (PI) in a textual form, individual learners' progress with their study at their own pace, rate and convenience. Furthermore, instruction becomes more interesting, effective and meaningful as a result of the application of educational media in the classroom teaching and learning. Learners are given the opportunity to come in contact with what they are being taught and the lesson become more lively.

Educational technology makes teaching and learning more scientific by adopting system approach. Teaching and learning tend to be more scientific and thereby achieve classroom efficiency and effectiveness. The utilization of educational technology such as radio, instructional television and newspapers in the teaching and learning provides equal opportunities for learners. A lot of people who are physically separated are given the opportunity of enriching their knowledge irrespective of their socio-economic status. Educational technology brings about immediacy in learning as students learn on the spot by adopting the use of already prepared and produced instructional materials like slides, film, video-tape, audio cassettes, charts and books.

EDUCATIONAL TECHNOLOGY AS A SOLUTION TO PROBLEM OF CURRICULUM PRACTICE IN THE NIGERIAN EDUCATION SYSTEM

Education technology may be seen as providing solution to some pressing problems of curriculum practice in particular and educational issues in general. This can be seen in the area of inadequate and irrelevant curriculum. Educational technology can assist in the development of new curriculum designs by establishing flexible instructional strategies including modules and programmed materials in textual forms. Educational technology is also a tool in solving the problem of rote learning in the Nigerian education system by adopting and incorporating the use of instructional materials into our classrooms. Educational technology tends to enhance the various senses of seeing, smelling, hearing, feeling and tasting. Therefore students learn and understand the content more meaningfully and thereby rote learning is discouraged.

Inadequate equipment, materials and facilities are problems of curriculum practice in Nigerian education system. Educational technologist can assist in solving this problem by developing and producing of inexpensive, low but high quality technologies and also determining and developing alternative strategy to cater for the unavailable equipment or

materials. The solution to problem of curriculum practice in the Nigerian education system can be seen in the development of modules, audio-tapes and video-tape which could be reproduced and utilised extensively for different groups of learners irrespective of their location and population especially when there is a problem of shortage of adequately qualified teachers. Also, in solving the problem of programmes for the training of teachers, educational technology can assist by developing appropriate competency based teacher education programmes as well as the utilization of micro-teaching strategies and facilities.

SOME GENERALIZATION ON THE EFFECTIVE USE OF EDUCATIONAL TECHNOLOGY IN THE CLASSROOM SETTINGS

Some generalization on the effective utilization of education technology in the classroom setting has been revealed by (Allen 2011). According to him, the carefully planned classroom use of appropriately selected 16MM and 8MM teaching films can lead learners to greater acquisition of information, understanding and concepts, identifiable with recent and accepted curriculum plans and statements of goals. A well planned classroom use of appropriately selected graphic materials including charts, diagrams, graphs, flat pictures, and combination of the gives to students increased conceptualization and understanding, that is, more than they usually gain from verbal explanation. He continued by saying that well selected and appropriately use of audio materials tapes, and tape modules significantly and efficiently helps students to achieve sought after learning goals, particularly in social studies, language arts, and foreign languages. Allen (2011) further revealed that systematic classroom use of educational television, can accomplish significant increases in learning, particularly in foreign languages, science, mathematics and social studies respectively. He maintained that the use of projected still images such as slides and film strips particularly when integrated with supporting verbal instruction and explanations available either in print or in audio-recorded format can help learners to accomplish significant increases in learning associated with social studies, science, industrial education and so on. Appropriate use of selected modules, levels of insights and understandings of relationships and processes in mathematics, social studies, and science above and beyond. According to law (2011), programmed instructional learning participated in by learners who are compatible with the demands of process produces significant and accelerated learning outcomes. He maintained that individualized learning modules can be devised which permit learners to proceed at their own pace, learn significantly more information through self-tutorial involvement than if they are exposed to the pace of large-group instruction. The inter-related use of media selected in terms of goals to be achieved facilitates learning outcomes which reflect with significance the reinforcing effect of such multimedia learning systems.

CONCLUSION

It is obvious that the field of education technology cuts across all teaching and learning subjects. It also features prominently in special programmes like adult education, special education, educational guidance and counselling, physical and health education, early childhood education, educational administration/management and so on. So effective management and utilization of educational technology in the above mentioned areas would definitely promote education system in Nigeria and the world at large.

RECOMMENDATIONS

The following recommendations were made on modern trend in the use of educational technology in the classroom and if adhered to would promote teaching and learning in our schools as well as knowledge students.

- Educations technological materials should be provided in all the three tiers of educational level in Nigeria primary, secondary and tertiary education.
- There should be an enforcement of its usage on both the students and the teachers.
- All subjects should be taught using the right technological equipment such as slides projector, audio-visual machine, opaque projector and so on.
- There should a monitoring team to enforce the use educational technological material in schools.
- There should be training for teachers on importance, management, and utilization of educational technological materials or equipment.
- Government should provide adequate funds for the purchase and maintenance of some the educational technology equipment.

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