THE ROLE OF TECHNOLOGY IN PROVIDING CONDUCIVE CLASSROOM ENVIRONMENT FOR TEACHING AND LEARNING
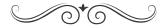
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ABSTRACT

Education as an institution is dynamic and the process of educating must be dynamic to conform with the changing society. Bulk of the process of educating in our present day society involves teaching and learning in the classroom. The aim of this paper is to discuss how technology can be used to make our classrooms conducive for teaching and learning. The paper viewed teaching as the art of imparting knowledge to learners while learning was seen as the act of acquiring knowledge that will be useful in the society. On the other hand Classroom was viewed as a room where knowledge was passed on to the learners. Problems associated with our present day classrooms were discussed such as over crowdedness, insufficient furniture, poor teaching facilities etc. The paper further discussed how technological tools can be used to make classrooms conducive for teaching and learning for example by the use of Electronic interactive Boards, Computers, Internet system etc. Recommendations were made which included: that there should be source of power for both urban and rural schools; Teacher Educators should be trained to handle technological Tools and Apparatus in classroom etc.
Keywords: *Teaching, Learning, Classroom, Technology.*

Introduction

Education as an institution is dynamic; it changes with the changes in the society. Therefore, the process of educating must be dynamic to conform with the changing nature of education and the society. Bulk of the process of educating in our present day society involves teaching and learning in the classroom. In view of this, the paper looked at the concept of Classroom, Teaching, and Technology. The paper studied then looks at the problems associated with our present classrooms, how technology will help in providing a more conducive environment in our classrooms for teaching and learning. The paper will conclude by giving recommendations.

Concepts Clarification:

Classroom

Thesaurus dictionary viewed classroom as 'a place in which all students in a particular grade (or in a division of a grade) meet at certain times under the supervision of a teacher who takes attendance and does other administrative business.'

A classroom is a learning space (environment), a room in which both children and adults learn. The classroom provides a space where learning can take place uninterrupted by outside distraction. A learning environment (classroom) is a diverse platform where users engage and interact to learn new skills. The term refers to a more preferred and accurate alternative to the traditional classroom full of desks and a chalkboard. A traditional classroom, in these days, tends to be loaded with students. It is not surprising to see a classroom with one hundred to one hundred and fifty students which becomes difficult for teachers to manage.

Teaching

Teaching as viewed by Onwuegbu (1979) 'is an environmental arrangement which inevitably involves an organism mentally and or physically in a set of organized activities, and facilities those activities in consonance with its goal (or lack of it), its age (mental and or chronological), and its capacity in an attempt to further its covert and overt behaviours.'

Thesaurus dictionary viewed teaching as 'the act or process of imparting knowledge or skills to another'. Similarly, teaching is to cause the pupil to learn and acquire the desired knowledge, skills and also desirable ways of living in the society. It is a process in which the learner, teacher, curriculum and other variables are organised in a systematic and psychological way to attain some pre-determined goals. 'Teaching is therefore a process of attending to people's needs, experiences, feelings and making specific interventions to help learners to learn particular things.'

Learning

Onwuegbu (1979) defined learning as 'a process through which behaviour is initiated or changed.' On the other hand Thomas (2010) viewed learning as 'a process of growth, progress and improvement during which an individual acquires knowledge, habit, skills and attitudes, which further changes his behaviours. Similarly, Omena(2020) viewed learning as 'the acquisition of new knowledge, ideas, skills, values and experiences which enables an individual to modify or alter his action or to realize his goals.'

Technology

Technology can be defined as 'the entities both material and immaterial, created by application of mental and physical effort in order to achieve some values. In other words technology refers to tools and machines that may be used to solve real-world problems.' Technology is the basis for improving on the past and creating the future' it is the application of scientific knowledge for practical purposes in human endeavour. It is in the light of this, the paper looked at the Importance of technology to teaching and learning. It includes the following:-

It helps in capturing attention of students in the work before them which according to Himmelsbach (2019) will promote full participation in the class activities including timid and shy students.

It helps in prolong retention of student's attention. As the students interest is captured their attention is retained through the activities they will be doing with the technological instruments before them.

It promote better understanding among students' as learning best takes place when learners are actively involved in what they are learning. That is why Chinese conclude that "*I hear I forget, I see I remember, I do I understand*". Therefore the use of technology will keep learners busy doing one thing or the other.

It promotes collaborative learning among students through the use of internet. Students will be connected to colleagues and other internet users in the course of research to solve an assignment or class work given by a teacher.

It reduces and simplifies the work of a teacher to simply facilitating in the classroom, for example, according to Holl (2018) a teacher can have a library of electronic books delivered to his classroom as PDF documents that can be printed and made in to low-cost books for their students to read in the classroom or at home.

It develops among students and teachers the art of research as there are countless resources for enhancing education and making learning fun and effective and students will have access to fresh information that can supplement their learning experiences. Himmelsbach (2019)

Technology and Conducive Classroom Environment

The classroom being the most commonly used learning environment needs to be arranged to meet the present needs of the teacher based on the activities to be done and the facilities or tools to be used. In the light of this, therefore, the teacher has to manage the available space in the classroom to suit his interest. Some of the technological tools that can be used in the classroom for a conducive learning environment are discussed below:-

Computer: - provision of computers in the classroom will go a long way in providing a conducive learning environment for students for example, putting fifty (50) computers in a class can accommodate up to one hundred and fifty (150) learners that is three learners per computer that is fair enough to give learners chances for practical engagement, control of over population in the class and slow learners can get the assistance of their colleagues. On the other hand, teachers can use computers for Computer Based Instruction. According to Thomas(2010) "this method has the greater potentials of facilitating more varied conditioning of learning which will enable them(learners) to accumulate satisfying learning experiences." In the light of this, teachers who have the skills of using computer technology can employ its various provisions to design classroom presentation.

Internet:- this is a global computer network providing variety of information and communication facilities, consisting of interconnected networks using standard communication protocols. Groves (2009) viewed internet as constituting a planet-spanning network of billions of computers all sharing information. This facility allows instant exchange of data through World Wide Web. Through the Web both teachers and learners can get access to variety of information by the use of e-mail, real time discussion, document sending or retrieval etc.

PowerPoint: - is an electronic presentation program that helps people presents a document by the use of collection of slides. It can simply be said to be a collection of slides that can be used to create oral presentations. A teacher can prepare his lesson by the use of slides. Slides can be coloured and animation added to it so as to attract and retain learner's attention. Similarly, it will save teachers time as he will not waste time writing on the board. Furthermore the presentation can be sent to individual learners account for reference.

Electronic interactive board: - Interactive Smart Board or Electronic White Board as it is sometimes called is a classroom tool that allows images from a computer screen to be displayed on to a classroom board using a digital projector. The Teacher or a student can interact with the images directly on the screen using a tool or even a finger such that you don't have to return to your computer. This type of board will help promote conducive learning environment in the classroom as it will help capture and retain the attention of the learners, it will be interesting as learners will be eager to interact with board. Similarly it will save teachers time as he needs not to draw pictures or diagrams on the board he will only display them from his computer.

Multi-Media Projector: - is a compact, high resolution, full-colour projector that is capable of projecting text, images, video and audio content on a screen or convenient surfaces. Wikipedia defines it as an out-put device that can take images from a computer and display it on a screen, wall or any other surface.

Problems of Using Technological Tools in the Classroom

Despite the importance of technology in providing conducive learning environment in the classroom, there are some problems associated with their use in the educational subsector which include the following:-

Technology in the classroom can be a distraction because students may find it difficult to concentrate in the class when a number of technological tools are around them. In some cases, students' attention will be taken away by the beauty of the presentation, animations, colours used in the presentation, pictures and or diagrams. (Himmelsbach, 2019)

Similarly, students that are used to these tools can get disconnected from social relationship with people. They will give their concentration to these facilities rather than relating with colleagues. This will affect their life later for developing an independent attitude.

The use of computer and internet requires knowledge and skills which will be at disadvantages to the students that do not have such knowledge. Therefore, they will not enjoy the rich resources available in the internet.

Poor internet connectivity especially in the rural areas affects the use of these technological tools and availability of Web resources needed in the educational sector. Consequently, the expected benefit will not be achieved. (Himmelsbach, 2019)

Another problem associated with the use of technology in the classroom is erratic electricity supply. Poor power supply hinders the use of these tools.

The cost of Computers, Lap-tops, Tablets, Ipads etc. makes it difficult for some students to posses that bring the issue of unequal access to technological resources.

Absence of teacher student interaction as the learners will be busy with their gadgets rather than the usual teacher student relation known in the traditional class. This scenario result in some learners getting lost, confused or feeling isolated.

Technology can foster cheating in class work and assignment. As students are allowed to choose which learning material to use without supervision they will end up copying and pasting someone else's work or hiring someone to write an assignment for him. (Himmelsbach, 2019)

Similarly, poor technological knowledge and skills on these tools used in the classroom among teachers hinders their use. Many Teachers do not have the knowledge and skills to use computers and Internet that makes it difficult for them to use them.

Lesson planning might become more tedious for teachers as they have to look for soft ware that best suit their lesson, environment and level of students. Similarly, it is time consuming as teachers must learn how to use them.

Recommendations

In the light of the problems that are likely to be encountered in the course of using technology in the classroom the following recommendations are made:-

Teachers should be given training on the use of technological tools they will be using in the classroom. This is possible through Seminars and Workshops under Teachers Professional Development.

There should be alternative source of power for schools both in the rural and urban centres so as to continued uninterrupted power for uses in the school.

Even though it is capital intensive Government should supply computers and Internet facilities to schools even children from less privileged families will have the opportunity of being in contact with them.

Teachers should put more effort in checking students work to avoid cheating in assignment and class work.

Teachers should give homework and assignment that will require cooperative work among students.

Internet connectivity should be provided to schools both in urban and rural areas.

Conclusion

It is obvious that the world in this century has achieved technological development, for the education sector to achieve its expected goals it must make use of technology in passing information to the younger generation. Therefore, government should endeavour to provide the needed tools to school and develop curricular materials that will suit the current word development.

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