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Information Communication Technology in Teaching/ Learning Process: The New Instructional Media in Developing World

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ABSTRACT

Access to prompt, adequate and reliable information is very vital in teaching/learning process. This is exactly what ICT provides. ICT is an alphabetism that stands for Information Communication Technology. In recent years, all human endeavours depend largely on ICT for optimum performance and good result. This paper examines the meaning of ICT and how it affects the dissemination of information. Also, the paper critically looks at the stumbling blocks on the path of teachers to effectively use the ICT to the benefit of their learners. Recommendations were also made in order to proffer solutions to the stumbling blocks on the path of teachers.

Keywords: ICT, Teaching, Learning, Instructional Media, Developing World.

Introduction

It is a common knowledge that there are a number of well – documented ways in which knowledge is generated or acquired. These ways include physical evidence, opinions and views of other renowned scholars and positions of experts. All these are what Information Communication Technology (which can be tagged the new instructional material in the developing world like Nigeria) can provide.

ICT for short, is a good instructional material that assists learners to attain effective and efficient transferability of knowledge they have acquired into the larger society because it helps the learner to see, feel, hear, appreciate and recognize what they have learnt.

ICT can be regarded as learning stimulus; it can be used by a classroom teacher to present a complete body of information in the learning and teaching process. ICTs are inputs of instruction like the classroom teachers. ICT stimulates teacher/ learner with full access to interactive classrooms and share ideas with people who are miles apart.

Let us consider the words that make up the alphabetism.

That is I= Information

C= Communication

T= Technology

Information: This can best be described as facts or details about something or somebody. Information can take many different forms such as text, pictures, sound, video and multimedia.

Communication: This is the activity or process of expressing or sending ideas and feelings or of giving people information. Alonge S,G and Deji- Afuye, O.O (2018) says that it is the effectiveness of communication in a classroom learning that determines the success of learning events.

Technology: It is the scientific knowledge used in practical ways to meet human socio-economic, political and educational needs. In recent times, technological innovations have enhanced the speed of disseminating information. In education technology, it is a learner centered way of optimizing all resources for educational or instructional purpose with the specific curriculum.

Therefore, it is plausible to say that ICT is the practical / scientific way of expressing or sending communicating detailed facts about somebody or something to people.

Also, Information Technology is the study or use of electronic equipment, especially computers, for storing, analyzing and sending out information. However, when we talk about ICT, a number of things other than computer is mentioned. Such things as telephone, radio fasmine (fax) internet, newsprint, teleconferencing etc. come to mind.

The alphabetism (i.e. ICT) was coined by Tevenson in his report of 1997 to the UK government and consequently promoted by the new National curriculum document for the UK in 2000.

Arolasafe (2004) says that Q.C.A. schemes of work for ICT is defined as "the computing and communicating facilities and features that variously support teaching / learning and a range of activities in education".

Till now, there is no concise definition for ICT. This is necessitated by the fact that the ideas, methods and application involved are constantly changing on an almost daily basis.

Arolasafe (200) categories ICT into three major groups these groups are:

1. Information technology e.g. computer
2. Telecommunication technology e.g. Radio, television, telephone etc.
3. Networking technology e.g. internet, audio conferencing etc.

Benefits

The effects of ICT on education are enormous. These benefits are significantly important to the effective education delivery. Some of these are:

Facilitating Communication

Ayodele, (2002) posits that communication is the transfer of a message from one person to the another. So in the process of teaching, communication can develop between the teacher and the learner, or between learners themselves. Where necessary, this communication can be extended to groups of people through teleconferencing, internet, etc. rather than just individuals. ICT has made it possible for a teacher to sit comfortable well in his office and still deliver lecture to students in various campuses through teleconferencing.

Building and exploiting information bases

Arolasafe, (2004) says "It becomes essential to develop effective strategies for storing information in ways that allow it to be very easily manipulated for future purpose". However, it could be agreed that it will be unreasonable to spend huge amount of money on education while the vast majority of the people in the developing nations are living below poverty level. However, these interests are not contradictory

because the only way to reach a long-term solution for the economic problems of the population is to raise the education level, particularly for the low socio-economic groups".

Facilitating interaction in resource

ICT allows learners to acquire skills necessary to collaborate, work in team and share information across global networks, that is, to analyse issues from a multidisciplinary perspective. Because now adays employers seek out individuals who have the capacity to effectively interact with others across cultures and languages. These skills include information reasoning, a process in which reliable sources of information are identified, effectively accessed, understood, contextualized and communicated to colleagues. This can lead to the creation of interesting and exciting interaction of learners with educational resources.

Delivery of education resource

Browsing through the internet can lead one to easy and relatively cheap educational up-to-date resources. Another benefit that ICT can bring to the designers of online learning resources is the huge resource base that resides on the World Wide Web (W W W). ICT also helps in delivery of educational resources such as, the use of e-mail to support collaborative writing, devices to facilitate communication for pupils and video- conferencing to support teaching etc.

Motivating students

When schools are connected to the internet, teachers taught to rethink teaching methods, and students are empowered to use technology. Hawkins (2004) says in World Links for Development Programme that a student in Senegal noted that teachers have to do better and improved job because they now challenge them as they are no longer passive receivers of information from the teachers as a result of their participation in collaborative project, and internet access.

Barriers

The barriers can be referred to as the stumbling blocks on the path of teachers to effectively and efficiently use ICT to impart knowledge. Some of the barriers are:

Lack of fund

One of the major challenges facing the connectivity of schools in developing countries such as Nigeria is the lack of finance. Hawkins asks in world links for Development program that how does a school in a country like Uganda, with a per capita income of $ 310 afford US $250 per month for an internet connection? Therefore, they could not use television set and video in teaching their learners in classroom.

Corruption

Corrupt leadership is the bane of African development. Even, when the money is readily available, probably from the international donors, the leaders prefer to divert public money into their private use.

Lack of teacher competence

Most teachers are intimidated by technology and are comfortable with their own teaching styles. Teachers who have technology-phobia will not be comfortable with the use of ICT to teach or knowledge in schools, simply because all the components of ICT are technologically based.

Lack of technical support

World Links Report states that getting computers into schools is easy but keeping them working is a greater challenge. Why? The reasons are many. They range from non-availably of spare parts, to low voltage that could damage the sets, electrical spikes, heat, dust, virus, etc.

Lack of a clear educational policy

One of the significant stumbling blocks in using ICT in disseminating information in schools is the lack of a clear cut policy in ministry of education with regard to the use of computer in education.

Gender issue

European commission (EC) report (2003) as quoted by Hawkins, notes that gender is an issue which determines the use of ICT by teachers, stating that 77% of male teachers use a computer off-line compared with 66% of female teachers, and points out that the gap is wider when looking at the use of the internet: 56% for male teachers compared with 38% of females. The reports show that men are more favorably disposed to computer than women.

Conclusion

Bandele, S.O. (2006) posits that if ICT is the indispensable factor to meaningful development in every area of human activities, at least in the present age: and if education is the overall development of the total man, educational development in Nigeria must be considered from the perspective of its ICT initiative. With this assertion, education should not be left behind in the new trend of millennium development.

Recommendations

- There is a popular maxim that says that there is no problem without a solution. Therefore, there should be solutions to the earlier mentioned barriers.
- A World Bank report says that ministry of education in developing nations cannot take on the task of equipping schools alone. It is too gigantic a project.
- Consequently, governments need to form partnership with organizations or seek fund from the international donors to connect schools in their country to the outside world.
- Moreover, the corrupt leaders should be tried in the court of law and if found guilty should be jailed and their property ceased and auctioned. This will serve as a deterrent to other corrupt people.
- There should be teacher- training program which should help teachers to see past the technology to the pedagogical and educational gains that the use of ICT will bring to the classroom.

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