

## ICT: Its Relevance in the Teaching and Learning of Physical Education in Nigeria

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### Abstract

Mans quest for solution to communication problem have been solved by the new trend available in the Information Communication Technology (ICT) as it affects student-teacher relationship. This has actually made the world to become a global village. In developed countries, the traditional face-to-face method of teaching is gradually being replaced by online teaching and learning for effectiveness in the educational sector. This paper therefore, delved extensively into the Information Communication Technology (ICT) and its relevance in the teaching and learning of Physical Education at all levels of Education. The purpose of this study is to make the teaching of Physical Education relevant to the changing advanced technology and the application of ICT to Education which is more than improving learning but has been about transforming it. The emerging challenges of the Information Communication Technology (ICT) to the Physical Educator were also discussed. This study is significant in the sense that it will add to the paucity of information in this area and the body of knowledge in general. The potential impact of conducting this study will enable the improvement in the level of computer literacy and also procurement of computers to compliment the teaching and learning of Physical Education with the help of ICT. Recommendations were made as to the involvement of the Government for the successful implementation of the programmes by making adequate provisions in the area of power supply and employment of ICT teachers to be able to implement Government policies. This paper was concluded by advocating for properly implemented programme as this will also serve as a motivator for both the teacher and the learners.

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**Keywords:** ICT, computer, revolutionized communication, traditional method, motivator.

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### INTRODUCTION

Man in his quest for solution to communication problems has always tried to find a way of making long distance communication. In view of this, man used men riding horses to deliver mails and at other times pigeons were also used. To our amazement, these two methods have remain inefficient, the first one took longer times for the messages to be delivered, while the other is limited by the directions that the pigeons were trained to go. These methods as reported by Adetan (2006) were used till the 19<sup>th</sup> century when Alexander Graham Bell succeeded in performing the first wired telephone call in 1875. This invention revolutionized global communication.

Information Communication Technology (ICT) as put together by Bamidele (2006) as a scientific method of storing and processing information and correspondingly sharing, exchanging and sending or moving such information from one place to another. He further defined them to mean computers, ancillary equipment, software, hardware, other services and resources interconnected together to form networks that is used in the automatic acquisition, storage, manipulation, managements, movement, control, display, switching, interchange, transmission or reception of data or information.

Aribisala (2006) described Information Communication Technology (ICT) as generally regarded as the super highway through which information is transmitted and shared by people all over the world. ICT is now making a change technologically in the world and virtually converting the world into a global village, where countries in the world are at different stages of integrating information communication technology (ICT) into everyday practice of its citizens, including teaching and learning process, politics, industry, economy and others.

The emergence of the computer system and its ability to be networked together connecting the global world like never before, gave birth to the fastest and easiest mode of communication where any part of the world could be linked within minutes. The internet allows people all over the globe to communicate with each other, there is no doubt about it for those with access to ICT, and the world is now a much smaller place or a global village. The relevance of ICT in a globally competitive society cannot be overemphasized as it has become common place entities in all aspects of life.

The marriage between ICT and education industry have revolutionized the educational sector, and this new revolution, has started to emerge and is seriously

changing the old systems in which individuals, government, public and private sectors operates (Osunrinde, 2002).

Technology has been used to support teaching and learning most especially post-secondary education. Quite often, technology has been practiced to supplement classroom teaching. Computers are now commonly used to present seminars at conferences and also to deliver lectures and the internet is now more in use to assess web sites to support lectures.

However, the advent of these technologies such as the internet, computer based multimedia and the World Wide Web (WWW) have resulted in significant changes in the teaching and learning process. This has made it imperative for the future shapers and movers of our society, most especially students at all levels of education to acquire and have a deep knowledge of the capabilities of the computer and information processing system. Careers and private lives have been influenced and greatly affected by the revolution in computer technology.

Omoso (2006) recorded that the National Universities Commission (NUC) Benchmark, made the study of computer compulsory for all university undergraduates in the bid to assist in the acceleration of global integration and understanding. He therefore posited that, a working knowledge of the computer is necessary in areas of health education, law, engineering, science and technology, politics, accounting, etc. Truly, the use of the computer is relevant in all fields of human endeavor.

This paper therefore, focuses on the applications of ICT in education generally and in physical education in particular, following the development of ICT and the services available in it. However, in the words of Bamidele (2006), greater percentage of the activities of ICT is educational and the application of ICT to education is more than improving learning, but has been about transforming it.

#### **STATEMENT OF THE PROBLEM**

Improvements in the quality of Education have been the concern of Teacher Education in the past few decades, Physical Education as an integral part of this process is therefore not an exception. Improvement in the teaching and learning of Physical Education can only be enhanced and be more realistic through the application of Information Communication Technology (ICT).

The emphasis of a physical activity is on qualitative assessment of the performance which can be conducted with the assistance of videotapes or motion pictures. In any case, the teacher or the analyst must use a systematic approach in the observation of the performance. There is paucity of

information on this area, therefore, this paper delve extensively into the relevance of Information Communication Technology (ICT) to the teaching of Physical Education.

#### **LIMITATION OF THE STUDY**

This study on the relevance of Information Communication Technology (ICT) in the teaching and learning of Physical Education is limited due to the paucity of information in this area and lack of adequate technology teachers to implement the Government policy. Lack of resources and inequality of access to ICT materials in the schools also limited this study.

#### **CONCEPT OF PHYSICAL EDUCATION**

Physical Education centers on maintaining a high level of physical fitness, and generally this should be the aspiration for all because of its immense contributions to healthy and meaningful life.

Physical Education is an integral part of general education process which deals largely with gross motor development. The discipline aims at developing the whole man physically, socially and mentally through motor skills which have been carefully selected and conducted to achieve the desired outcomes (Amuchie, 1982). Physical Education also covers a wide field which includes physical training, gymnastics, games, athletics, swimming, dancing, camping, mountaineering and hiking. All these activities contributes in no small measure to the general well being of individual concerned, any individual that participated in physical education are expected to have higher levels of physical fitness than those who do not. Physical fitness have been defined by Hockey (1981) as the ability to carry out daily task with vigour and alertness, without undue fatigue and with ample reserved energy to enjoy leisure time pursuit and to meet unforeseen circumstances and emergencies.

In physical education, learning is acquired by conscious efforts. During teaching and learning, the learners play active roles through concentrated continuous practice of instruction given by the teacher.

#### **NEED FOR INFORMATION COMMUNICATION TECHNOLOGY IN PHYSICAL EDUCATION**

Improvement in the quality of education as emphasized are in teacher education, Physical education as an integral part of this process is therefore not an exception. A dynamic positive approach towards physical activity is becoming increasingly important in our present world, to enhance this improvement which can be achieved through a well-planned programme. The effect of regular physical activity in promoting fitness,

increasing muscular strength, lowering blood lipids, reducing high blood pressure, countering obesity and improving blood glucose control cannot overestimated.

The assessment of physical activity through the use of observation has inherent appeal and recent technological advances through ICT permitting complex observational codes to be entered, stored and analyzed by micro computers have really stimulated research into physical activity pattern of individuals (McKenzie, 1999). Early research as reported by Armstrong and Welsman (1997) utilized film to monitor the activity levels of obese and non-obese children over a period of time.

Electronic motion sensors known as accelerometer have the capacity to measure both the frequency and intensity of movement counters in physical activity research. The most popular instrument is the caltrac accelerometer which has been gradually replaced by the Tritrac-R3D activity monitor with more functions. (Armstrong and Welsman, 1997).

Information communication technology (ICT) can be utilized to develop pupils understanding of the human body, physiology and health education, for example, by monitoring heart rate against physical activity. In addition, there are many opportunities for assessments and performances.

A number of self contained computerized telemetry systems have also been developed for the unobtrusive measurement of heart rate. This system consists of a light weight transmitter which is fixed to the chest with electrodes and a receiver/microcomputer which is worn as a watch on the wrist. They are socially acceptable and they permit freedom of movement, they are not noticeable and so does not unduly influence the child's normal physical activity patterns (Reported by Armstrong and Wellsman, 1997)

#### **THE EMERGING CHALLENGES**

Some of the challenges of the implementation of ICT initiatives are:

- More developed countries benefit while the least developed countries tend to remain impoverished, because of lack of resources and inequality of access.
- In institutions of learning, the ratio of students to computer device is not encouraging, some institutions do not even have this device at all.
- Non availability of enough resource persons to put the students through and make them independent.
- Even where the devices are available, there is problem of inadequate electricity supply.
- Low rate of computer literacy and insufficiency of computers.

- Relative high cost of accessing information online.

#### **RECOMMENDATION**

A lot needs to be done in order to implement information communication technology for effective teaching and learning of physical education in Nigerian Institutions:

- The Institutions must provide incentives to the teachers by regular workshops, seminars, for updating their knowledge of information communication technology.
- Philanthropists need to commit part of their resources to the funding of ICT.

The Government has much to do:

- The problem of power supply should be critically looked into by the government to give students and the teachers' ample opportunity to access internet with ease.
- With a matter of urgency, governments should make adequate employment of information communication technology teachers in order to be able to implement the government policy.
- Appropriate funding should be allocated to ICT for proper implementation of the programme.

#### **CONCLUSION**

Teacher education has been greatly challenged today, because the world is undergoing a major social and economic change through the new information processing technology of communication and computer. Information communication technology should be used, in a nut shell, to enhance classroom teaching-learning. Assignments and submission could be given through internet when we are information technology compliant, supervisors and supervisees can interact through chatting on the internet. If this information communication technology device is properly implemented, it will also serve as a motivator for both the teachers and learners and it will also enhance their creativity, efficiency and make them productive.

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