

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT): THE PANACEA FOR PRESENT-DAY POOR ACADEMIC PERFORMANCE IN NIGERIAN SCHOOLS

Dr. Umoinyang E. Umoinyang and Mfon E. Umoinyang

Abstract

The present-day poor academic performance of students in Nigerian schools has assumed alarming and embarrassing proportion that concerned citizens are no more at ease. This paper sought to identify with the implementation of Information and Communication Technology (ICT) as a panacea for this malaise. Accordingly, the paper examined the meaning of ICT, the need for ICT in education, the challenges of ICT in Nigerian schools, and went ahead to recommend that all teachers in Nigerian schools should be compelled to be ICT compliant, public electric power supply should be improved, sufficient disciplinary action should be taken against school heads that divert school equipment to personal use, among others.

In recent years, the academic performances of Nigerian secondary school students particularly in external examinations have continued to be on a steady decline to the embarrassment of stake-holders in the education industry. A cursory look into the immediate past records reveals that in 2007/2008 West African Examination Council's results only 13 percent of the candidates in Nigeria scored 3 credit passes and above, in 2008/2009 WAEC result, out of 1.5 million candidates that took the examination, only 300,000 passed the May/June examination, and in the November/December 2009 WAEC result, only 32% had 6 credit passes and above (Umoinyang & Udongwo, 2010). Most recently, the Nigerian Tribune Newspaper had an alarming headline "Mass

failure as NECO releases 2011 Nov./Dec. results". The paper reported that "the National Examinations Council (NECO) on Wednesday released the 2011 November/December Senior School Certificate Examinations (SSCE) results with another mass failure in almost all the subjects" (Nigerian Tribune, Thursday 29 March, 2012). In its breakdown, the paper reported that out of 110,590 candidates who registered for Mathematics, 45,547 passed at credit level, representing 41.19 percent. In English Language, out of the 110,724 candidates who registered for the subject, 104,187 sat for the examination. Out of this, only 10,457 passed at credit level, representing 9.44 percent. In the other core science subjects, the result showed Biology 7.57, Chemistry 5.32, Physics 0.05, Further Mathematics 1.05, and Agricultural Science 4.93 percent passes at credit level.

It is the sincere belief of the authors of this paper that something is wrong in the education industry which manifests itself in the present-day mass failure of students. One of such problems is the lesson delivery to students. The authors strongly believe that introduction and effective application of Information and Communication Technology (ICT) is the panacea for the present-day educational system in Nigeria.

What is Information and Communication Technology (ICT)?

Information and Communication Technology (ICT) deals with digital data and the ways of storage, retrieval, transmission and

receipt of data. More importantly, ICT deals with the ways these concepts work when put together. ICT communication over some distances is achieved by electronic means using networks connecting different hardwares like personal computers and digital television to send and receive data. Although, there is no universally accepted definition of ICT because the applications and technology involved keep changing fast, almost on a daily basis, however ICT could be said to refer to technologies that provide access to information through communication (Itah, 2011). ICT focuses primarily on communication technologies like the internet, wireless network, cell phones and other communication media. They include radio, cellular phones, computer and network, hardware and software, satellite systems as well as the various services and applications associated with them, such as video conferencing and distance learning (Unwin, 2009). Alakulehin (2007) defines ICT as the range of technologies that are applied in the process of extracting, collecting, storing, editing, retrieving and transfer of information in various forms. Various electronic equipment such as ipods, mobile phones, MP3/MP4/DVD devices, file transfer protocols, digital satellite receivers and transmitters, World Wide Web and the computers are ICT products and are used for information exchange.

The Need for ICT in Education

Stressing the need for, and importance of Information and Communication Technology (ICT), Obunadike (2009) opined that it has been recognized recently as a tool of knowledge that is imperative for growth and development. Many countries now regard the understanding and mastering of basic ICT skills as part of the core education component, alongside reading, writing and numeracy. The dominant influence of ICT on all aspects of human activity including governance,

commerce, industry, communication, aviation, education, etc cannot be overemphasized. Considering the all embracing functions of ICT and the advantage thereof in information exchange, the Nigerian government established the National Information Technology Development Agency (NITDA) in April 2001 with the objective to make Nigeria an information technology capable state and using IT as a tool for sustainable development as well as global competitiveness. This therefore requires that the country needs to shift emphasis from the present-day knowledge oriented education to knowledge that will empower the human potentials for productive enterprise and functional living. This is why Atajeromavwo and Konyeme (2008) observed that Information Technology is a vital factor in the successful development of the education sector and industry at large.

Stressing the significance of ICT in the teaching-learning process, Njoku (2007) commended the efforts of relevant authorities who have made the acquisition of basic ICT skills and capabilities part of the National Minimum Standards for Teacher Education at both levels of the Nigeria Certificate in Education and first degree in education. It is consequent upon this development that concerted pressures are brought to bear on teachers throughout the country by the National Commission for Colleges of Education, Teachers' Registration Council of Nigeria, and National Universities Commission to catch up with the rest of the world in Information and Communication Technology (ICT) because it impinges on the quality and currency of the information, skills and orientations that they impart on their students (Atajeromavwo and Konyeme, 2008).

Undisputedly, teachers constitute the greatest single factor in the teaching-learning

process and, therefore, need to be functionally equipped for this onerous task if the present-day dwindling fortunes in students' academic achievement must be reversed for the better. Accordingly, on the positive relationship between ICT and teachers' professionalism, Njoku (2007) noted that no teacher can boast of having comprehensive and adequate professional development without taking advantage of the infinite opportunities on the web. To him, there are far more professional development opportunities available, both cheaper and free, on the web than a teacher can wait to receive on a face-to-face basis, especially in Nigeria where a teacher can stay for years without a single opportunity to attend a workshop or seminar.

Correspondingly, Njoku (2007) equally noted the role of ICT on teachers' research activities and better teaching job performance. This is because the information that brings about break-throughs in research comes from the web in the present world. Any information that is available is uploaded in the internet almost instantly as the proponent of the information will always want to be credited with his achievement and reckoned to be the "first". This way, the web provides the teacher with an amazing source of world-class current data, especially in modern times that libraries have gone virtual.

Advancing reasons for recent poor academic performance of our students in external examinations in Nigeria, Agboghroma (2010) lamented that there are lots of problems facing the effective teaching of pure and applied science related discipline at the levels of our educational institutions. One of such is the problem of communication channels through which pieces of information, ideas and concepts could be disseminated to the learners. He added that effective

communication through communication media is paramount to effective teaching of sciences.

Collaborating on the significance of ICT to the teaching-learning process, Oshodi (1999) observed that the awareness of the use of communication technology is on the increase in the classroom among the third world countries such that mere verbalization of words alone in the classroom to communicate ideas, skills and attitudes in educating learners is futile. He therefore stressed the need to try communication technology for the purpose of enhancing effective teaching of the sciences.

Agboghroma (2010) noted that science education and science teaching in the Nigerian school system has for long been observed to emphasize acquisition of knowledge through the didactic approaches in which the teacher is seen as a repository while students learn by memorization against the acquisition of skill, attitudes and knowledge through what the scientists do (method of science). It suggested that the use of ICT for teaching science is paramount especially in this era of information technology. Aer (2009) outlined the following broad objectives that the use of ICT could achieve in science teaching to include the following four categories, namely:

1. Constructing knowledge and problem-solving;
2. Using process skills;
3. Aiding explanation of concepts; and
4. Communicating ideas.

Agboghroma (2010) aptly concluded that teaching with ICT is a timely recreation of science education because only a few jobs today do not require the use of skills in technology. These skills, he enumerated include collaborated team work and information, all of which are competencies that can be possessed through teaching with ICT.

The Challenges of ICT in Nigerian Schools

As much as emphasis in modern times favours the application of ICT in the teaching-learning process globally, teething challenges in Nigeria are identified to be standing monstrosly in the way of its successful implementation. Agboghroma (2010) identified some of the major challenges in the application of ICT at the primary and secondary schools levels to include inadequate trained ICT manpower, inadequate ICT literacy and infrastructure, funding, the curriculum, quality control, class size, and power supply. Other challenges militating against ICT in Nigerian schools, namely:

(a) Poor power supply: Without any fear of ambiguity, one of the greatest challenges staring in the face of ICT compliance in Nigerian schools is poor electricity power supply (Atajeromavwo and Konyeme, 2008). Successive governments have promised so much but delivered so little in terms of improvement in electricity power supply. ICT gadgets and appliances rely on regular electricity power supply and full voltage for optimum performance which seem untenable in the country, especially in recent times.

(b) Misplaced priorities of government and provision of ICT facilities: It is unfortunate that some state governments in the country have misplaced priorities. While some State Governors have declared free education in their states only to score cheap political points, others have so prioritized irrelevant issues that education is helplessly begging for attention. The Punch Newspaper (April 17, 2012:18) in its editorial, lamented the wrong priorities by some state governments and noted the absurdity of spending billions of Naira on political issues ranging from sponsorship of pilgrims to squandering of state resources on programmes and projects that enhance their personal image,

contributing little to the general well-being of the people. Efforts towards the provision of ICT facilities in Nigerian schools should be intensified by all stake-holders in the education industry including individuals, Parents/Teachers Associations, Corporate organizations, government at all levels, etc.

(c) Diversion of equipment by school administrators

Some school administrators have been found to divert equipment meant for schools to personal use. Safety measures should be put in place to check this anomaly.

(d) Training of personnel in ICT. Despite the generally acclaimed indispensability of ICT in the present-day teaching-learning process, the reality on ground shows stark inadequacy of trained personnel in the area (Agboghroma, 2010). Accordingly, efforts should be made to enforce the policy of ICT literacy on all teachers in Nigerian schools.

Conclusion

In due consideration of the present-day poor academic performance of Nigerian students, this paper seriously hopes that the benefits of Information and Communication Technology (ICT) will alleviate the sorry state, and therefore, concludes that all obstacles and challenges in the way of ICT implementation in the teaching-learning process in Nigerian schools should be dismantled.

Recommendations

1. Government and Non-Governmental agencies should collaborate and improve electricity generation, distribution and supply in the country to power ICT equipment in schools.
2. Nigerians should be alive to their responsibilities of directing politicians' attention to people-oriented projects and

- improvement of the quality of education in the country.
3. All teachers in Nigerian schools should be compelled to be ICT literate.
 4. Sufficient sanctions should be put on school heads found to divert school equipment.

References

- Aer, I. (2009). The challenges of utilizing ICT in schools' science teaching. *Journal of Qualitative Education*, 5(2), 106-109.
- Agboghoroma, T. E. (2010). Issues and challenges in the application of Information and Communication Technology (ICT) in science teaching in Nigerian education system. *Academic scholarship Journal*, 1(1), 158-164.
- Alakulehin, F. K. (2007). ICTs in teacher training and professional development in Nigeria. *Turkish online Journal of Distance Education (TOJDE)*, 8(1), 98-15.
- Atajeromavwo, E. J. & Konyeme, J. E. (2008). A survey of the state of Information and Communication Technology (ICT) in Computer Science and Science Education graduates' job prospects and challenges for qualitative education in Delta State. *Journal of Qualitative Education*, 4(1), 124-129.
- Itah, A. Y. (2011). *Information and Communication Technology (ICT): A roadmap to sustainable industrialization and job creation*. An unpublished paper presented at the fifth convocation of IMFI ICT Academy, Uyo, Akwa Ibom State (October 27).
- Nkoku, S. (2007). Indispensability of Information and Communication Technology in the teaching-learning process. Unpublished presentation on National ICT skills acquisition for registered teachers in Nigeria. *Vanguard Newspaper*. October 11, p. 36.
- Obunadike, J. C. (2009). ICT and the implementation of *Universal Basic Education*. *Knowledge Review*, 19(4), 126-131.
- Oshodi, O. (1999). *Introduction to instructional media*. Lagos: Amazing Grace Press.
- The *Punch Newspaper* (April 17, 2012:18). Editorial.
- Umoinyang, U. E., & Udongwo, A. M. (2010). Effect of age of entry to primary school on primary five pupils' academic achievement in Uyo Local Government Area of Akwa Ibom State. *Journal of Childhood and Primary Education*, 7(1), 171-179.
- Unwin, T. (ed.) (2009). *ICT. Information and Communication Technology for Development*. Cambridge University Press.
- Dr. Umoinyang E. Umoinyang**
Department of Educational Foundations,
College of Education,
Afaha Nsit,
Akwa Ibom State.
- And**
- Mfon E. Umoinyang**
University of Nigeria,
Nsukka,
Enugu State.