CHALLENGES MILITATING AGAINST THE UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) BY NIGERIAN TEACHER EDUCATORS FOR SUSTAINABLE DEVELOPMENT

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Abstract

This paper discusses the challenges militating against the utilization of information and communication technology by Nigerian teacher educators. This is a descriptive on type using survey method. A seven items questioner designed by the researchers was used to elicit responses from the 280 respondent randomly selected from the collages of education Kano state. The study reveals that lack of skills, lack of adequate training, lack of interest, lack of time, lack of appreciation of the benefits oflCT use, and the tasking nature of preparation oflCT utilization as the challenges militating against the utilization oflCT by teacher educator. The paper was concluded by recommending that government should increase funding for teachers education programmes in the educational sector with acquisition, recruit qualified teacher educator with ICT skills, connect all the teachers education institutions to ICT nationwide, teacher educators should be adequately motivated through funding of workshops, conferences and seminars to utilize ICT in teaching. It is the expectation of the researcher that the solutions proffered as recommendations would ensure that sustainable development would be achieved in Nigeria in particular and Africa at large.

Keywords: Challenges, Utilization, Information and Communication Technology?, Teacher Educators

Education is regarded as a veritable tool for national development and it is the greatest legacy any nation can bequeath to its citizens. This was the driving force that motivated the organizers of the 1960 National Curriculum Conference. The National workshop observed that, the curricula of schools were not considered relevant to the needs and aspirations of Nigerian people and there was need to review them. The far-reaching recommendations of the workshop and the subsequent Ota seminar held in 1973 led to the emergence of a government White paper now known as the National Policy on Education (NPE 1977) which has undergone several reviews, for example, 1981, 1998, 2004 and 2009. Imogie (1998), reports that the country's educational system was reviewed to emphasize flexibility so that it could be of value to its recipients and the entire society.

Information and Communication Techno logics (ICT) have become key tools and had a revolution impact on how we see the world and how we live. Today, the place of ICTs in education and the world in general cannot be undermined. Modern day businesses are conducted and facilitated through the use of telephones, fax machines and computer communication networks through the internet. This phenomenon has given birth to the contemporary e-commerce, e-government, e-medicine, e-banking, and e-education among others

According to Bandale (2006), ICT is a revolution that involves the use of computers, internet and other communication technologies in every aspect of human endevour. The authors posited that ICT is simply about sharing and having access to data with ease. It is regarded as a super highway through which information is transmitted and shared by all the world. Jimoh (2007) defined ICT as the handling and processing of information (tests, images, graphs, instruction etc) for use, by means of electronic and communication devices such as computers, cameras, telephone. Ofodu (2007)

also refer to ICT as electronic or computerized devices, assisted by human and interactive materials that can be used for a wide range of teaching and learning as well as for personal use. From these definitions, ICT could therefore be defined as processing and sharing information using all kinds of electronic device, an umbrella that includes all technologies for manipulation and communication of information

The field of education has certainly been affected by the penetrating influence of ICT and in particular developed countries; ICT has made a very profound and remarkable impact on the quality of teaching, learning and research in the educational institutions. ICT has the potentials to accelerate, enrich, and deepen skills; to motivate and engage students in learning; to help relate school experiences to work practices; to help create economic viability for tomorrow's workers, contribute to radical changes in school: to strengthen teaching and to provide opportunities for connection between the school and the world

Looking at the role of education in nation building and the population explosion in the schools these days, the use of ICT in the teaching - learning process becomes imperative. This is true because its adoption by the teachers will enhance effective teaching. Such issues like good course organization, effective class management, content creation, self-assessment, self study, collaborative learning, task oriented activities, and effective communication between the actors of teaching learning process and research activities will be enhanced by the use of ICT based technology

Teaching and learning has gone beyond the teacher standing in front of a group of pupils and disseminating information to them without the students' adequate participation (Ajayi 2008). The authors posited that with the aid of ICT, teachers can take students beyond traditional limits, ensure their adequate participation in teaching and learning process and create vital environments to experiment and explore. This new development is a strong indication that the era of teacher without ICT skills is gone.

A cursory look at teacher education institutions in Nigeria as shown that many teacher educators in the system steel rely much on the traditional "chalk ant talk" method of teaching rather than embracing the use of ICT. According to Okebukola (1997) computer is not part of classroom technology in over 90% of public schools in Nigeria, thus the chalkboard and textbooks continue to dominate classroom activities. This is an indication that the student teachers in Nigeria are still lagging behind in the trend of changes in the world. This presupposes that there is tendency for the teacher educators and student teachers to be denied the opportunities which ICT offers in the teaching-learning activities. There is the need to replace the traditional pedagogical practices that still underpin the educational system in the country, hence the need for the utilization of ICT in Nigerian teacher education institutions.

ICT has the potential to transform the way education is delivered and promotes new opportunities therefore, enhancing scholarship and enquiries. This can only be attained when teachers, who are still the key to learning, have developed and utilized the necessary pedagogical competencies for instructional delivery through ICT resource utilization. Jones (2003) opined that effective learning is dependent on the will and competencies of the teacher in instructional delivery of lessons. This implies that teachers must undergo capacity building in ICT resources at the NCE and university level of education to enable them utilize maximally its benefit in instructional delivery.

Furthermore, ICT resources are instructional delivery tools used to explore, investigate, solve problems, interact, reflect reason and learn concepts in the classroom. This innovation permits alternative types of educational patterns for facilitating the teacher/learning process (Umoren, 2003). The

researchers conceptualized the ICT resources as the e-learning which is commonly associated with higher education and corporate training that uses an information network through the internet, an internet (LAN) or extranet (WAN). Electronic learning (e-learning) is used both in informal and formal educational setting for facilitation, instruction, interaction and for instructional delivery. Web-based learning is also a subject of e-learning.

According to Umoren (2003), another type of ICT resources is the virtual teaching which entails instructional delivery through teleconferencing the video conferencing technique. Web based instruction uses internet and the World Wide Web (WWW) as the component of learning materials and instructional resources for effective instructional delivery. Audio media (instructional slides and tutorials) are teacher/learning aids made and written into compact disks, graphics and texts. Through the power point instructional delivery is impactful to slow and fast learners.

The various ICT facilities used in the teaching learning process in schools according to Babajide and Bolaji (2003) Bryers (2004), Bandele (2006) and Ofodu (2007) include; radio, television, computers, overhead projectors, optical fibres, fax machines, CD-room, internet, electronic notice board, slides, digital multimedia, video/VCD machine and so on. It appears some of the facilities are not sufficiently provided for teaching - learning process in the Nigerian teacher education institutions. This might account for why teacher educators are not making use of them in their teaching.

According to Ajayi (2008) the use of these facilities, involves various methods which include systemized feedback system computer-based operation/network, video conferencing and audio conferencing, internet/worldwide websites and computer assisted instruction. It must however be stressed that the effective use of the various methods of the ICT in teaching learning depends on the availability of these facilities and teachers competence in using them. Observation has shown that there are no functional internet facilities in most of the Nigerian teacher education institutions for student teachers use. This appears to hinder the extent of teacher educator's exposure to the use of ICT in teaching.

Teacher educators as well as student teachers appear not to be knowledgeable in the use of ICT because there appear not to be any official training for both the teacher educators and student teachers in the Nigeria teacher education institutions hence the need to examine the challenges militating against the utilization of ICT by Nigerian teacher educators.

Statement of problem

ICT are essential tools in any educational discipline. It has the potential of being used to meet the learning needs of individual students, promote equality of educational opportunities, offer high learning materials, increase self-efficacy and independence of learning among student, and improve teacher's professional development (Kirschner and selinger, 2003)'. In spite of the potentials of ICT, only resourceful and competent teachers can exploit the potentials. Moreover, ICT have been recognized as significant and key strategic tools in teaching by different governments, organizations, institutions among others. There are needs to investigate challenges militating against the utilization of ICT by teacher educators.

Propose of the study

The propose of the study is to ascertain the factors militating against teacher educators' utilization of ICT resources in teaching and learning in Colleges of Education.

Research question

What are the challenges militating the utilization of ICT by Nigerian teacher educators'?

Significance of the study

The researchers hope that the findings of the study will benefit the following bodies in the following ways; the College of Education administration will be informed of the challenges militating against the utilization of ICT by teacher educators. Due to the recommendations that will be made here, challenges militating against utilization of ICT by teacher educators will become a thing of the past.

Teacher educators in College of Education in Kano State and other colleges of education also stand to benefit from the findings of the study when they begin to utilize ICT in their teaching. Findings of this study will also benefit researchers by adding to the pool of information that already exists in this area. Researchers can therefore fall back on information gathered here by replicating this study in another setting.

Scope of the study

This study focused on the challenges militating against the utilization of ICT by teacher educators in colleges of education in Kano state. It specifically focused on the utilization of ICT recourses by teacher educators. The study covered the seven states include Kano, Katsina, Kaduna. Jigawa, Kebbi, Zamfara and Sokoto states. The mean and standard deviation are statistical tools used in this study.

Methodology

The descriptive survey design was used for this study. The population for the study consisted of all the teacher educators in colleges of education in Kano state. The sample for the study is made up of 280 teacher educators in colleges of education randomly selected from the three colleges of education in the state.

A self-designed questionnaire tagged "ICT Utilization by teacher educators (ICTUTE)" was used to collect the data for t5he study. The instrument was validated by research experts in educational technology. Cronbach Alpha was used to determine the reliability of the instrument and the reliability coefficient was 0.08. The questionnaire was administered by the researcher with help of research assistants in the three collages. Data collected were analyzed using frequency counts and mean.

Results

What are the challenges militating the utilization of ICT by Nigerian teachers educators? **Table 1:** The challenges militating the utilization of ICT by Nigerian teacher's educators.

S/N	FACTORS AGAISNT UTILIZATION	X	S	Interpretation
1	Lack of time to use ICT resources	2.52	0.68	Agree
2	Lecturers lack the skills to use ICT materials	3.65	0.72	Strongly Agree
3	Lack of appreciation of the benefit of ICT in teaching.	2.73	0.88	Agree
4	Lack of adequate training for teachers Educators	3.52	0.91	Strongly Agree
5	Lack of skills 3.66to improvise ICT materials	2.78	0.83	Agree
6	Lack of interest to used ICT in teaching learning process.	3.66	0.78	Strongly Agree
7	Preparation for ICT in teaching and learning process.	2.54	0.77	Agree

Classification scheme: 0.0-1.00= strongly disagree 1.10-2.0= disagree, 2.10-3.00= agree, 3. 10-4.00=strongly agree.

Table 1 Shows that the teacher educators indicated a strong agreement to three out of the seven items on the factors militating against the utilization of ICT namely: lack of skills, lack of adequate training and lack of interest. They however indicate an agreement to items like lack of time, lack of appreciation of the benefits of ICT use, lack skills and the tasking nature of the preparation of utilization.

Discussion of findings

Generally, factor militating against the utilization of ICT are the same in all collages of education. These findings were in line with the factors idedified in the works of Moore, Wilson and Armistead (1986), Okwudishu (1993), Locwood (2000), Telia, Telia, Toyoba, Adika, and Adeyinka (2007), where they identified lack of technical support across school and teachers' lack of expertise in utilizing ICT, as prominent factors. Lack of incentives and support for teachers across schools are other factors hindering use of ICT resource. Anderson, Hennessy, and Wamakote (2010) identified a range of physical and cultural factors affect ICT used by teacher educators, including lack of reliable access to electricity, limited technology infrastructures and available software, geographical factors such as country size, terrain and communication, demographic factors such as population size, density and desperation, lack of time available in classes and schedules for planning, and lack of national policy on the uses of computers in schools.

Also, Kolowale and Omolara (2010) identified high cost of accessing and purchasing ICT materials and poor supply as factors militating against the use of ICT resources in schools and colleges. This implies that government and all stakeholders in education in Nigeria should start the reform process considering as urgent priority the provision of essential learning resources to facilitate the sustain effective teaching-training in the collage of education in particular and in all teacher education programmes in the country.

Conclusion

ICT educational impact cannot be swept under the carpet by any militating factors as identified from the studies. Therefore, this study that the challenges militating against utilization of ICT by teacher educators in collages of education in Nigeria to include lack, of adequate training, lack of interest, lack of time, lack of appreciation of the benefits of ICT use, and the tasking nature of the preparation of the benefit of ICT utilization. It is the expectation of the researchers that the solution proffered as recommendations would ensure that sustainable development would be achieved in Nigeria in particular and Africa at large. There is also blame of poor funding of education. Low allocation of education has certainly adversely affected the proper implementation of the government policies on education, in order for sustainable developmental programme, the quality of what is learned at the school requires substantial improvement in teachers competencies and learning environment, and therefore, utilization of ICT in teaching and learning process is the only medium to actualize this dream.

Recommendations

- The government should increase funding for teacher education *institutions in the educational* sector with emphasis on ICT. This will help improve the level of ICT facilities in the collage

- There should also be continues and periodic training of teacher educators on ICT skills acquisition.

- Recruit qualified teacher educators with ICT skills. Connect al*l the teacher educations to ICT* nationwide.

- Teacher educator should be adequately motivated through funding of workshops, conferences and seminars to utilize ICT in teaching.

References

Ajayi, I. (2008). Towards effective use of information and communication technology for teaching in Nigerian collages of education. *Asian journal of information Technology,* 7(5), 210-214.

Anderson, D,, Hennesy, S., & Wamakote, L. (2010). Teacher Factors Influencing Classroom Use of ICT I Sub- Saharan Africa. Itupale Online Journal of African Studies, 2,39-54

Babajide, VFT, Bolaji O.A.(2003). Perception of lecturers and service teachers towards the use of Communication media in teaching pure and applied science related discipline. 44th Annual STAN Conference proceedings. 33-36

Bandale, S. O, (2006). Development of modern ICT and internet system. In A.A. Agagu (ed). Information and Communication Technology and computer Applications. Abuja, Panof Press

Bryers, A. P. (2004*).* Psychological evaluation of means of an online computer. Behavior Research Methods and Instruction, 13, 585 - 587

Federal Republic of Nigeria (2004). National Policy on Education. Lagos: Federal Government Press 4

Jimoh, A. T. (2007). Students attitude toward ICT in Nigeria tertiary institutions. *Education Focus* 1 (I): 73- 79

Jones, C. (2007). Differential Teaching and providing for Special Educational Needs. In S. kennewell, J. Parkinson & H. Tanner (Eds). *Learning to teach ICT in Secondary Schools.* London: Routledge Falmer.

Ofodu G. O. (2007). Nigeria Literary educators and their technological needs in a digital age. *Education Focus 1 (1): 22 - 30.*

Okebukola P. (1997). Old, new and current technology in education. *UNESCO Africa.* 14 (15): 7-18.

Kirschner, P. & Selinger, M. (2003). The State of Affairs of Teacher Education with Respect to Information and Communication Technology. *Technology? Pedagogy, and Education, 12 (1). 5 - 17 (Electronic Version). Retrieved from http://www.triangle.co.uk/jit/index.hto*

Kolawole, A.A & Omolara, M.B. (2010). *Availability and use of Audio Visual and Electronic Resources for Distance Learning Student in Nigerian Universities: A Case Study of National Open University of Nigeria (NOUN), Ihadan Study Centre.* Retrieved from file://G:lim7.btm.

Locwood, F. (2000). Problems Affecting the Use of Learning Materials in Distance Education Prorammes. Retrieved from *http://www.academicexcellencesociety. com/utilizationofinstruction*

Moore, D. M. Wilson, L. & Armistead, P. (1986). Media Research: A Graduate Student's Primer. *British Journal of Educational Technology.* 24 (1), 32 - 42.

Tella, A. Toyobo, O. Adika, L.O & Adeyinka, (2007). An Assesment of secondary schools teachers uses of ICTs: Implications for further Development of ICTs Use in Nigeria Secondary Schools. *Online submission 6(3)*

Umoren, G (2006). Information and Commnication Technology and Curriculum. *Nigerian Joiwnal of curriculum Studies, Calabar Chapter, 2 (I), 57-83.*

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