ARTICLES

TEACHER QUALITY, MODERN TECHNOLOGY APPLICATIONS AND TEACHING AT A SOUTH-WESTERN NIGERIAN UNIVERSITY

By LADE ADEYANJU (PHD)

Faculty of Education, Obafemi Awolowo University. Ile-ife,Nigeria.

ABSTRACT

Increase in enrolment of learners at the different levels of the educational system and particularly in the south-western Nigerian universities motivates this paper.

The stretched facilities, infrastructure, poor funding and attitude of stressed teachers to adoption of new technologies affect quality teaching and thus demand the attention of instructional designers. It is felt that the application of modern technologies in teaching and learning, especially the interactive instructional design packages as used in the (K12 school education) would lead to quality teaching. It was suggested that teachers' be encouraged to explore the potentials found in the information communication technologies (ICTs).

INTRODUCTION

The wealth of any nation's education revolves around the quality of education that teachers have.(Kochlar 1978 in Adeyanju, 2005) The more educated the teacher, the better for capacity building of a nation.

The trained teacher involves systematic analysis of problem, designing, implementing and evaluating solution to the problem of teaching and learning. For a teacher to be able to solve problems, he/she has to apply technology. These involve the teachers' ordering of ideas (science) know how and ordering of things (technology) that imply know how. The teacher has to be given the needed training that will enable him/her to meet the desired objectives. (Faborode, 2005)

In the past, teachers served as controllers and repositories of knowledge. The teacher was in the position of adviser to the 'local' chiefs and rulers on issues that affected the community. He was a disciplinarian, and moralist. The teacher was respected and the society looked up to him for leadership in most cases. The teacher of the traditional past had rudimentary local technologies for imparting knowledge to learners. He made use of prints, workbooks, teachers' guide, trainers' guide, textbooks; journals; samples from the local environment and he also used manipulative games that include folk songs, miming and simulation in his/her teaching.

In essence, teachers are aware that they must evoke curiosity in learners, encourage exploration, and make learners participate actively in experimentation. The teacher is usually in a position to advance and assist the society's growth with knowledge.

In this paper, technologies imply any practical art that utilizes scientific knowledge with the object of improving and positively enhancing teaching and learning condition.

Training of the teacher and Quality delivery.

In the industrialised and developing countries of the world, education is seen as the largest enterprise. The dynamism of education, and the efforts required to meet the emerging needs and proffering solutions are added problems. The teacher's challenges as a result therefore include his/her training and the task to be performed. While undergoing the training programme they have to read courses that would provide in depth knowledge of specific discipline. They receive training in psychology of human learning, child study, philosophy, management, history of education, etc. They must acquire skills in the use of methods and media, and get supervised in school and practical exposure is also provided to them. The teacher has to develop the skill of writing lesson notes and

cultivate positive attitude to the teaching profession. At the end of the training, they take examinations that qualify them to teach depending on the level of the studies.

Teacher preparation is therefore considered as very involving, especially when the teacher is being held responsible for building the nation by impacting quality knowledge to learners of different ability groups. They spend between three and five years in teacher training institution to equip self with the rudimentary knowledge and pedagogies of teaching. Teacher quality would include training and delivery techniques.

Nigeria, like some other countries of the world with high population density has about 120 million people, (Unesco 1977). Nigeria has 75 universities; 26.federal, 26 states and 23 privately owned, in addition to the universities are 84 colleges of education and polytechnics. There are about 25,000 teachers in the universities. The enrolment of learners has also been growing. There were about 2000 undergraduate students in 1962, this figure has geometrically risen to over 700,000 in 2004 (Okebukola 2004). However, in the last ten years, less than 10% of the 26% of the Unesco's recommended budgetry allocation has been given to education.

With the observed increase in the university enrolment, albeit poor funding, only the use of new technologies of instruction would make delivery easy for the teachers. Despite the rigour involved in teacher preparation in Nigeria, to qualify to teach at the university level, demand that the candidate has a good class of university degree. An addition of masters and doctorate degrees in the specialised field would yield the desired teacher quality in terms of mastery.

The recent demand for university education in Nigeria however has put stress on the teacher, the facility and infrastructure. The problem of providing quality education therefore deserves attention. Put simply, the massive d to

explosion in student enrolment implies that teachers need to be given the needed skill to cope with the teaching of large class. The skill required involves new technologies.

The table 1 shows the growing rate of university admission.

Table 1: Increase in university applicants.

Years	Applications	Admission	%
1995/96	508,280	32,473	6.4
1996/97	472/362	76,430	16.2
1997/98	419,807	72,791	17.3
2000/2001	550,399	60,718	11.0
2003/2004	876,024	65,233	13.49

source: Joint Admission Matriculation board (JAMB)

From the table1, 32,473 candidates were admitted out of the 508,280 that qualify for admission in 1995/6. The figure of those admitted in 2003/4 year doubled the admission of the 1995/6. With the observed increase, there is need for methodologies to give mass education to qualified Nigerians seeking for University admissions.

The figures in the table 2 also show the most patronised university in South-Western Nigeria.

Table 2: Enrolment in South Western Nigerian Universities (2003-2004)]

	Male	Female	Total	%
-Boven University Iwo	455	195	650	30.
-University of Ibadan, Ibadan	12594	8499	21093	40.3
-University of Lagos, Lagos	13780	9048	22829	39.6
- Obafemi Awolowo University, Ile-Ife			26427	
-Ladoke Akintola University Ogbomoso	7096	3617	10713	33.8
-University of Ado Ekiti Ado	7982	4553	12535	36.3
- Ogun State University Ago Iwoye	6763	6280	13043	48.1
- University of Ilorin, Ilorin	12313	6175	18488	33.4
- University of Agriculture Abeokuta	3887	1320	5207	25.4
- Federal University of Technology Akure	6742	1249	7991	15.6

The table 2, shows that Obafemi Awolowo University, Ile-Ife is the most subscribed university in the south west.

ARTICLES

Literature

Issue of teacher quality is of central concern to the educational technologist. This is because the educational technologist has the duty to analyze an instructional event or system and identity the central points in the instructional process, and design ameliorating solutions. As deserved in (Nwabokwu, 2005), the function of the education technologist is to design learning systems that are hitch free in terms of communication between the teacher and learner. It is however the trained' teacher that implements the contents of the curriculum. Success of delivery of the program rests squarely on the shoulders of teachers that constitute the teaching force. The empowerment of the teacher with equipment, tools and skills would enable him/her to meet and as well overcome specific tasks and challenges in the processing of teaching. Teacher quality reflects in the variables as Obanya (1997) puts it. A teacher should be educated in the sense of a broad-band form of disciplined knowledge. Specialized in the sense of having in-depth knowledge in a given area; professionally trained, in the sense of internalization of knowledge, skills, attitude and values needed for promoting learning, professionally competent, in the sense of applying one's skills to really promote learning; and a lover of learning in such a way that one's own personality inspires the learner.

Research on schooling and improved learning have shown that there is high correlation in some methods used and school learning. Such methods include; practice, monitoring and evaluation, feedback, and active pupils participation. Practice involves self-study, assignments on worksheets, homework, small cooperative group work and peer tutoring. Monitoring and evaluation describe the use of quizzes, tests, essays and standardized tests to find out learners' previous knowledge. While feed-back emphasizes the action of the teacher on tests, quizzes and assignments given to learners. Other methods by which improved learning can be secured are through interactive radio instruction, (IRI) that involve the broadcasts of lessons into the classroom, and improvement of teachers through in-service training programmes (Kumuyi, 1995, Lockheed and Verspour 1991, and Warwick and Reimers 1989)

It is observed that ICTs have inbuilt packages that could bring about practice, immediate feedback, interactivity, and monitoring and evaluation. The challenge that ICT's policies and it's implementation poses to the developing countries are the task of adapting education to information age.

The needed infrastructure must be made available in classrooms. The development and dissemination of educational resources, training teachers to use the new technologies; the adoption of educational administration to information age, and willingness of the teachers to get the needed training for skills required for using educational software and information network management, are also important.

In pursuit of the ICTs policy, Taiwan, Ministry of Education in 1997, launched the information education infrastructure programme with the aim of carving out a blue print on information on education for teachers and students in schools. Through the programme, 227,000 teachers were trained in basic computing techniques in various IT workshops. The Taiwan government invariably has contributed to the adoption of the new technologies by teachers.

The white paper on IT for K12 had a target of sponsoring 600 schools with focus on specific subject on IT. In addition, it was also to develop a new 9year coherent curriculum for elementary and middle school integration. While working on the digitalizing of teaching materials, it

planned for 'educitizens' network. (Chan et - al 2001; Young et-al, 2002)

Despite the efforts on mass education in Taiwan through the distance learning mode, Zhu, (1999) remarks that teachers don't change their teaching culture, He found that traditional methods are barrier for effective use of ICT in education. The author also calls for new type of teaching learning culture.

The Effects Of ICT In Obafemi Awolowo University

The changing role of the perception of education, demand for education and forces of globalization has brought- in the ICT revolution. Knowledge acquisition at present is the major determinant of economic growth and is made accessible to all. Political, economic, geographic and educational barriers are getting broken on a daily basis. The virtual library, virtual teachers all over the world can share knowledge. ICT has therefore made University education relatively cheaper, while access to it is making learning faster and easier. For instance, the Obafemi Awolowo University at Ile-Ife collaborate and share research on information technology and distance learning with some other universities like the Tufts University, Boston USA and the University of Jos Nigeria. The patronage of IT at the University in Ile Ife, include several agencies, companies and industries, Ministry of education and students.

The ICTS Reliant Teachers

Studies on use of ICTS in higher education have shown that a large percentage of academic staff has little experience with computers and computer aided educational processes (Amaoo,2004). It is however felt that the higher institutions of learning should encourage the academic staff members to update knowledge through resources outside their local environment. The internet linkage would ensure that new knowledge is accessed for use of teachers in the delivery of instruction.

Implications of adopting the new technologies

The teacher is the communicator and the training that he/she needs involve the contemporary information and communication technologies. Considering the welfare of teachers, (Akinyemi 2004; Nwaboku, 2003) put it that teachers' welfare packages are generally poor. The condition under which they work is poor, which in return lead to lack in development of self-esteem. The conditions under which teachers perform their functions may not encourage quality teaching as expected.

The mission of the Obafemi Awolowo University at Ile-Ife in Nigeria is directed at fostering a teaching and learning community for imparting appropriate skills and knowledge behavior and attitudes, advance the frontiers of knowledge that are relevant to national and global development, engender a sense of selfless public service and promote as well as nurture African cultures and traditions.

(Obafemi Awolowo University Calender, 2006)

Advantages Of The K-5 And K-12 Strategies In School Education

Some of the experienced problems of school learning have been taken care of in the design of the K-5 and K-12. The overcrowded classroom that will not allow learners to participate fully in the lesson, and the teacher in an overcrowded classroom that cannot individualize teaching will benefit from these strategies. Interaction will take place and learners are likely to become interested since they will be active learners.

Under this kind of a learning environment, the quality of learning is expected to get improved because the K-5, and K -12 methodologies are seen to take care of the lapses. The individualized systems of learning, interactivity with design packages and motivation have been packaged so that problems of learning, are seen to be lightened. Other advantages of the new media for

learning include quick feedback on performance, unbridled access to information through the electronic media, information storage systems, quality learning from electronic tutorials and variety of learning formats.

Challenges of Teachers

The new technologies have brought changes to classroom teaching, therefore teachers will have to learn the new ways of the delivery systems. As Gramdy (1979,Laryea,1984) has observed, new technologies are threats to teachers. There will be need to retrain teachers. The 21st century technology revolution that ushered in the computers breakthrough may create problems for teachers if they refuse to upgrade the self. They would eventually become irrelevant as learners fund answers to their questions from package design and from surviving the internet.

The New Technologies in Use

Modern technologies, the ICT inclusive, have opened up opportunities for e-commerce, print journalism, e-mailing and processing of information for all people. Vast Navajo used the internet to connect traditions and culture in order to improve the community and this has achieved a remarkable success.

Ron Hubbard's modern methods of teaching and learning in Sudan, came up with an impressive finding. Hubbard puts it that application of practical procedure helped learners to reason with concepts. They were self-determined and became confident teachers of new skills. This is what the Obafemi Awolowo University at Ile Ife is currently doing with the new technologies.

At the Obafemi Awolowo University, in the computer center, and educational technology departments and some other departments, committed staff and teachers are competent in the applications of the new technologies. There are evidence of the use of the power point presentations, use of graphics and interactive

packages: virtual teaching and conferencing have also started. This is a change in the new direction.

However, much need to be done in terms of sustainability. Like it is experienced in the developing countries, a lot of the success of the applications of the new technologies as mentioned earlier depends on the teacher. The determination of the Federal Government of Nigeria to give mass education through modern technologies is however being threatened by electricity supply.

As observed, most commercial provider of the modern technology facilities, especially e-mailing have to use the industrial generator to solve the embarrassing problem of erratic supply of light. The problem of electricity not withstanding, a large percentage of the universities of the South West in Nigeria now invests heavily in ICT for instructional purposes.

Conclusion

In the developing countries of the world, Africa especially and in Nigeria to be precise, teachers are poor. In order to improve their skills and using new technological applications for instructing learners, the Federal and State Governments have to make provisions for the infrastructure, facilities and the hardware/software materials. Teacher should be compensated for the adoption of the new technologies because success of its application rests on them. At the Obafemi Awolowo University, Ile-Ife Nigeria, all the thirteen faculties have been connected to the internet. However, not all the staff has personal computers. As a way of giving incentives, staff could take loans to have their personal Pcs.

Series of training workshops for staff are still going on in the university computer centre for free. In order to ensure that the mass of students can effectively use the computer, courses on computer titled, "Computer Appreciation", and "Computer Applications" have been made compulsory for all the students.

Since the federal government of Nigeria is making it compulsory for all undergraduate students, and workers in the Ministries to be computer literate, teacher's in the higher institution must be challenged to adopt the new technologies for instructional purposes.

References

Akinyemi, S. (2004) Teachers Perception of Welfare Packages for Teaching Staff in Lagos State Secondary Schools; Implication for Teacher Productivity. In Education A Socializing Agent. Faculty of Education Lagos State University.

Amao, B.O. (2004) ICTs Needs Assessment of Higher Education Women; A case of Lagos State University Women's Academics Ojo Campus Nigeria. Unpublished Arusha, Tanzania, AITEC Africa.

Faborode, M.O. (2005) Technology and Living Inaugural Lecture Series 183, Obafemi Awolowo University Ile-Ife. Nigeria Unpublished.

Laryea, MGA (1984): The status of AV education in Pre-Service Teacher Preparation in Ghana. Unpublished Doctoral Dissertation, Michigan State University.

Nwaboku, C.N (2005) Teacher, The Answer is Blowing in the Wind. Unpublished 20th Inaugural Lecture, Lagos State University. Nigeria.

Obafemi Awolowo University, Ile-Ife, Nigeria Calendar 2004-2006 Printed by Obafemi Awolowo University Press, Ile-Ife, Nigeria.

Obanya Pai (1997) Quality in Education is Perceptible, Visible, Quantifiable and Beautiful in Enhancing Quality Education in Nigeria. faculty of Education Publication, Lagos State University Ojo.

Okebukola, P. (2005) Partly Cloudy University Horizon: Promise of Sunshine by Private Providers. Unpublished. Foundation Day Lecture, Bells University of Technology, Ota. Nov., 19, 2005.

UNESCO. (1975) A systems approach to teaching and learning procedures: a guide for educators in developing countries. Paris: UNESCO.

ABOUT THE AUTHOR

Lade Joel Adeyanju, is associate professor of art education/ educational technology in Obafemi Awolowo university,Nigeria. His interest resides on use of technologies for improving learning input at the different levels and he pulls most of his applications of the principles from skinner and Dale's cone of experience.

————————