

The Role of Information and Communication Technologies in Adult Education and Non Formal Education for National Development in Nigeria

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Abstract

This paper examines the role of information and communication technologies in adult education and non formal education and how it can serve as a catalyst for national development in Nigeria. For competitiveness in global stage, the knowledge based economy is given priority and places great importance on the diffusion and use of information in new technologies for productivity and growth. The determinants of success of national economies and enterprises are reliant upon the effectiveness in gathering and utilizing knowledge. The paper therefore, highlights various aspects of adult and non formal education and the utilization of ICT and some of the challenges that could follow such innovation were x-ray and solutions proffered for greater growth and productivity for sustainable national development.

Keywords: Information and communication technologies; Adult education; Non-formal education and national development

I. Introduction

At independence in 1960, the global community had great hope and aspiration on Nigeria as a potentially endowed nation and was placed at parity with countries like China, India, Malaysia and Turkey because of her God given human and natural resources. After, five decades as a nation, the above mentioned countries have risen from underdeveloped to emerging economies. Whereas, Nigeria has gone down the ladder in human development index. As of today, Nigeria aspires to be in the league of the 20 leading economies in the world by the year 2020. How can this noble idea can be conceptualized without efficient education at all levels. The neglected aspect of education is that of adult and non formal education which if not given her rightful place, the vision of 20: 2020 can never be realized. The Human Development Report UNDP (2008) shows that Nigeria is still at the lower level of human development index compared to the countries in the emerging economies and critical understudying of these countries shows their seriousness in promoting and advocacy in lifelong education compared to Nigerian situation.

The human development index reported in 2005 that combined gross enrolment in the primary and secondary was 69.1 %, tertiary education stood at 56.2%, whereas adult and non formal education was 0.47 percent.

Based on the foregoing, it can be viewed that with these available index as indicators for academic judgment and analysis, Nigeria is far behind in human capital development and this calls for a pragmatic policy intervention towards transforming the economy from its present state to knowledge driven using work place education as a catalyst for the much sought growth and sustainable development to make Nigeria a reckoned

nation on the global stage. Scholars advocated for knowledge based economy through intensive effort in human capital development in achieving vision 20: 2020 so that Nigerian can regain her lost glory and enhance its competitiveness in the global economy.

Blinder (2000) suggested three vital things to boost productivity and growth for a nation to be reckoned with. These are (i) improve the quality of the work-force through education and training (ii) equip the workers with more and better capital such as computers and (iii) Improve technology, so that the given input produces greater output.

For any meaningful growth and sustainable national development, it is necessary to carry along the rural dwellers and the average working class; the rural areas are where the vast majority of our people live. These are the places where Nigerian has its own share of poverty, ignorance, illiteracy, wide gap between male and female child, high attrition rates and drops outs. The deployment of new innovation and technology in enhancement of the competitiveness of farmers, blacksmiths, petty traders, administrative clerks and housewives among others would be a remarkable gain and boost growth and national development. A farmer, can learn new things on farming methods, application of fertilizer and pesticide or new farming techniques such as hybridization through transistor radio broadcast in local dialects, GSM handsets, computers, projectors etc.

II. Adult and Non-Formal Education Concepts

Liveright and Haygood (1968) observed that adult education in many countries is not been seen and viewed as a distinctive sector of education. While in some countries, adult education is taken as adult literacy, community development, vocational education, moonlight education/social education and citizenship education. In his own, Aderinoye (2004) sees the term adult education as a process unrelated to age. He observes that the term has been described as a process by which persons who have terminated their initial cycle of continuous education may undertake sequential and organized activities with the conscious intention of bringing about changes in themselves with regards to information, knowledge, understanding or skill appreciation and attitudes.

UNESCO (1976) views adult education as “entire body of organized educational processes whatever the contents, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adults by the society in which they belong, develop their abilities enrich their knowledge, improve their technical or professional qualifications and bring about changes in their attitude or behaviour in the two-fold perspective of full personal development and participation in balanced and independent, social, economic and cultural developments” . Scholars like Delker (1974), Omolewa (1981), Aderinoye (1997) views the term adult education as an organized and sequential learning experience designed to meet the felt needs of adults. On the other hand, the term Non-formal Education connotes an organized educational activity for out-of-school youth and adults outside the formal system.

Omolewa (1981) and Akinpelu (1990) define the term Non-formal education “as any organized, systematic educational activity carried on outside the frame work of the formal system to provide selected type of learning to particular sub-groups in the population of adult as well children also Omolewa, (1981) while quoting the Federal Government of Nigeria version of the term Adult and Non-formal Education stated that:

Adult and Non-formal education may be aimed also at young people who legally have not attained adult status, but for whom there is no further provision within the school system “It is estimated that there will be approximately 1.6 million of such young people with no place in the formal system p.5.

Based on the foregoing, it could be seen that educating the target groups within the adult and non-formal sector is of necessity and the deployment of ICT is highly desirable for any meaningful growth and sustainable development in the nation.

To Ukeje and Aisiku (1982), adult and non-formal education goes beyond literacy and includes all forms of training outside the formal school system, such as the apprenticeship system in mechanics, bicycle repairing and carpentry. And these if well implemented can lead to growth and national development.

In their own submission, Okedara and Bown (1981) viewed adult and non-formal education as the rubric of education that covers training and instruction outside the formal education system and ranges from individualized apprenticeship to nationwide literacy. It may be vocational, as in the case of craft training centers in Nigeria designed to provide employment opportunities for young school leavers and for other unemployed persons. This can gear up growth and sustainable development in the nation.

Adult and non-formal education is a veritable tool in the development of a nation like Nigeria. Akinpelu (1990) lays credence to this when he reiterated that adult literacy can:

Makes available coded information and knowledge. Facilitates communication between the reader and the writer, regardless of distance and time. Facilitates a critical and constructive treatment of issues before decision making. Ensures freedom of expression. Generates a feeling of self-confidence and personal security against the possibility of being cheated or exploited. Promotes political participation and ensure survival of democracy. Increase the opportunity (and possibility) for economic, political and social awareness and gains and advantages. Creates better attitude to change. Facilitates access to technological infrastructure and mass communication which can bring economic and social development. P.18.

Before any meaningful development can take place, the challenges of access, quality and cost must be addressed. That was why Cornia quoting Wali (2004) asserted that:

Within the Nigeria education system, more than 4 million primary schools learners who need access to secondary education could not gain access. This is in addition to the desire to train more than 40,000 teachers. Equally of relevance is the desire of more than one million secondary school learners to gain admission to university for the year 2004 alone, one million applied for admissions out of which there were only 100,000 available spaces (p.76).

Based on the above secondary, the only escape route from this logjam is mass education which technology holds the answer

III. The necessity of ICT in Adult and Non-Formal Education for National Development in Nigeria

The new information technologies can be applied to adult and non-formal education in different ways: they can provide training materials; be used as an aid in the educational process and fulfill a supporting function in organizational aspects of adult and non-formal education. Nigeria as a nation cannot afford to leave millions of its citizens uneducated in this 21st century for meaningful and sustainable industrial development, needs viable education for the vast majority of her citizens in the rural areas must be given the right education and skills to compete favourably. That is why Harbinson (2003) opines that:

Human resources constitute the ultimate basis for wealth of nations, capital and natural resources are passive factors of production, human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations and carry forward national development. Clearly a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else (p.47).

Adult and non-formal education is imperative for any meaningful socio-economic changes and development in Nigeria. With a well planned programme of action, the various social vices in Nigeria in the name of ethno-religious crises would be drastically reduced if every citizen can be given the necessary skills

and knowledge that would make them functional and self-employed citizens. What kind of education do they need and how can we then give mass education in Nigeria?

Combs and Ahmed (1974) identify the following types: Technical skills training for older adolescents and young adults to prepare them for gainful employment in the future. Technical upgrading of existing artisans and craftsmen (including the self-employed) in order to improve their standard, versatility, productivity and income.

The Author also spelt out basic assumptions about adult learners as follows: They need to know the purpose of their learning, The learning must be relevant to their real-life needs both professional and personal, Learning is self-directed, Adult learners want their knowledge to be recognized and used, Personal or incentive-based motivation supports learning.

For this kind of assumption to be realized, there is urgent need to incorporate modern gadgets like radio, television, video recorders, slides and computers to make adult education more attractive and result-oriented. In the educational process of the adult and non-formal learners, new technologies can be applied as a storage medium for teaching aids and also as a means of communication. It is used in such activities as advice and consultation, animation, policy determination and planning, promoting expertise, information services, international relations, research, training courses, teaching materials development.

The internet is a basic tool in the information and communication technology world. That is why Carlson (1998) opines that:

The power of the internet lies in its ability to bring diverse groups of individuals in contact with each other to facilitate communication, collaboration, and the exchange of idea across geographical divides, language barriers and unique cultural perspectives.

IV. Benefits of ICT

If government at all levels can adequately fund Adult Education programmes by incorporating ICT technologies, the issue of barriers to access education and learning would be a foregone conclusion. This would bring and enhance the principle of learner centeredness, lifelong learning, flexibility of learning provision, the recognition for credit of prior learning experience and the provision of learner support among others. The provision of educational computer studies and information technology in adult education learning centers would bring solid foundation for the development of our society. According to Onasanya (2001) the advantages of computer-based instruction are as follows: reduces training time, Reduces reliance on trained instructors; reduces need for using expensive or possible dangerous operational equipment; provides rapid update instructional materials, constructs high-quality instruction on a large scale and Provides high quality training at remote sites.

The above are in agreement with what Durosaro (2001) said that:

An education which seeks to remove all unnecessary barriers to learning, while aiming to provide learners with a reasonable chance of success in education and training system centered on their specific needs and located in multiple areas of learning(p.65).

Bates and Poole's (2003) observation on human development deficiency as indicated below should not be ignored. They observe that:

If technology is the answer, what is the question? The paradox of technology enriched education is that technology changes very rapidly and human beings very slowly. It would seem to make sense for proponents of e-learning to begin with the learners.

For an effective ICT in Adult Education, Okebukola and Shabani (2001) outlines 6 basic steps in the development of online distance learning education as follows: preparation of course text, audio and video

films, Web site design, hosting, publishing and promotion, Designing and testing of site, Acquiring cyberspace, Running and maintaining online courses and learners support and Monitoring and evaluation.

The use of ICT in adult education has enormous benefits. Computer has a content area as well as skills area that have to be mastered and developed. It would enable adult learners to learn wide range of skills and information about technology. Furthermore, it facilitated the provision of learning. Since the majority of Adult learner are rural based, the kind of information that must be devised should involve them in development and learning process. The Author however noted that Communication had within and among societies, a definite, importance for the diffusion of great ideas, for the relationship of the, authority and the majority of the inhabitants as well as the conservation and stabilization of societies.

Based on the forgoing, well informed citizens are asset to the nation, increase productivity and promote harmonious living for growth for national development. For harmonious living in a nation, the government must provide a kind of education for each level of our society to have sense of belonging. For the adults, Oyedeji (2013) identified the following areas:

On-the-job training: this is upgrading training for adult employee who needs particular skills efficiently in their new or old employment and upgrading specific skill of personnel employee who need promotion.

Job creation: this is the type of training which could generate new employment opportunities for group of individual adult. People that can benefit from such training programmes are artisans, craftsmen, tailor, carpenters etc.

Specialized vocational skills: these skills are needed for those adult that engage in technical and commercial work who need practical skills to function efficiently in rural areas where they live. Such people need skill for maintenance of equipment, sewing equipment, farming equipment, hand tools, generators etc.

Managerial and Business skills: these are meant for those who engage in business which demand skills in record and stock keeping, purchasing and sales, import and export, investment, personnel management etc.

Home industry and Home improvement skills: These are for those who produce on a small scale and undertake simple improvement and maintenance of their home. Programmes for home making and decoration serve the need of housewives and women in general.

To achieve this laudable educational objectives for adult learners, Gagne (1992) advocated for the categorization of learning into intellectual skills, cognitive strategies, verbal information, motor skills, and attitudes and to his nine steps in e- learning : Gaining attention, Stating the objective, Stimulating recall of prior learning, Presenting the stimulus, Providing learning guidance, Eliciting performance, Providing feedback, Assessing performance, Enhancing retention and transfer to other contexts, The provision of functional literacy education for adult who have never had the advantage of any formal education. The provision of functional and remedial education for those young people who prematurely dropped out of the formal school system. The provision of further education for different categories of completers of the formal education system in order to improve their basic knowledge and skills. The provision of in service, on the job, vocational and professional training for different categories of workers and professionals in order to improve their skills, and The provision to adult citizens of the country of necessary aesthetic, cultural and civic education for public enlightenment.

All these would go a long way in enhancing the social status of the adult learner, will make them informed citizens civic responsible in promoting the ideas of the democratic culture and contribute to the national economy.

Cavanagh (1997) outlines the following as the instruction in adult education information and communications technology. They are:

Postal correspondence: postal correspondence tuition still forms the main basis for learners -tutor contact in the vast majority of distance education programmes.

Newspaper: newspaper and magazines campaigns have been widely used as a component of distance education programmes in many countries.

The telephone: audio and audio-graphic conferencing, and video-conferencing, via telephone and satellite communications channels have been increasingly used artisanal, small scale, teacher-led distance education.

Radio: used from the 1930 for distance education.

Television: which continues to be a dominant medium in a few large-scale institutions such as the Chinese central Television University?

Electronic mail, computer conferencing, and the world wide web (www), the current new technologies using the internet, which are now attracting so much attention.

The above medium if adequate harnessed can bring the desired literacy, information, skills, and knowledge that can bring good governance and sustainable social changes in Nigeria.

V. Challenges

No matter how laudable a new education innovations and technologies might be, there are challenges. Obielodan (2001) spelt out the limitations of electronic distance learning as follows: low technological environment of most African countries; power failures in most states of Africa and low level of self-motivation in learners in African schools.

Also, the main problem in applying the new technologies to the work of adult and non-formal educational groups is access to its many and multiple possibilities. The majority of organizations encounter difficulties in the practical application and used of the new technologies.

Finally, another significant challenge for adult and non-formal education is the use of the new technologies in group work. They provide many opportunities for individual learning, but their implementation in group work has still to be fully exploited. The experience of National Open University of Nigeria (NOUN) in the use of education software, telecommunication networks, modern teaching method, technological experiments etc still faces lot of challenges and at the developmental stages.

All and sundry should take up the challenge on the questions of access to mass education and participate in the development of education delivery contents that can bring much desired transformation in Nigeria and to contribute to the development of democratic culture and sustainable social changes.

VI. Conclusion and Recommendations

For Nigeria to compete favourably with other nations globally there is urgent need to imbibe the importance of a massive effort in the field of education and training, since education is a key variable for the competitiveness of enterprises on the global market and also, education is of overwhelming importance in determining each nation's position in global competition. The government should incorporate ICT in adult Education in addition to efforts being made in the formal education setting at all levels so as to achieve meaningful national development.

The Federal Government of Nigeria should encourage ICT education at all levels of education including Adult and Non-formal Education.

Adequate funding should be given to Adult and Non-formal Education sub-sector to enhance growth and development in the country. The mass media should be deployed to assist in the realization of the objectives

of ICT in the Adult and Non-formal Education. The curriculum of Adult and Non-formal education should include ICT for growth and development in Nigeria.

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