

TECHNOLOGY EDUCATION: A PANACEA TO UNEMPLOYMENT IN NIGERIA

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Abstract

Unemployment situation in Nigeria is on the alarming increase particularly graduate unemployment. One of such areas that has the potentials of eradicating unemployment is technology education. This paper explores the concepts and objectives of technology education. It examines the concept of unemployment, types, causes and consequences such as loss of personal income, fall in revenue and increase in social vices and crimes viz: armed robbery, prostitution and baby-dumping. The paper outlines and discusses the way of eradicating unemployment through technology education e.g. introduction of technical subjects in school and acquisition of ICT skills and competencies. One of the recommendations of this paper is that, technical subjects such as computer studies, wood work, leather work, ceramics, basic electricity etc should be introduced in primary and secondary schools so as to lay solid foundations for entrepreneurial skills for self-reliance.

Introduction

The genesis of unemployment in Nigeria can be traced back to the pre-independence/colonial. Nigeria. Before independence in 1960, the missionaries introduced the type of formal education that was of the liberal arts viz: Reading, Writing and Arithmetic - the 3Rs (Fafunwa, 1974). The curriculum was not for all-round development of the child because the aspects of science and technology which would have created entrepreneurial skills for self-reliance were ignored. The curriculum kept on producing subservient Nigerians who were tied to the apron string of white-collar jobs viz: gardeners, stewards, interpreters, catechists, clerks and house-keepers (Etuk, 1984). These were workers that would not interfere in the activities of the colonial government or agitate for independence (Abenethy, 1969). In realizing the injuries done to Africans in ignoring the development of science/technology for self-reliance and in making the people parasitic consumers instead of creative and efficient producers, Eya (1949) voiced out:

Henceforth, education will not Europeanize the African but on the contrary, will Africanize him ... Education must make the people creators, efficient producers and creative consumers and not mere parasitic consumers.

The response to the above assertion started with the 3969 National Curriculum Conference that came out with aggressive science education policy (Fafunwa, 1974:210). Subsequent policy documents such as the National Policy on Education (1977, revised 1981 and 2004) came into existence. In the 1980s, there was the introduction of the 6-3-3-4 system of education with introductory technology at the JSS level. In 2007, there was the introduction of the 9-3-4 system of education with computer studies at all levels. The new system is viewed as a potent asset that will overhaul the liberal arts education curriculum and inevitably create job opportunities that will reduce unemployment, poverty and hunger to the barest minimum. It is also envisaged that the new system will produce the technology manpower needed in all sectors of the economy; and will launch Nigeria into the orbits of technological world in this age of Information and Communication Technology (ICT).

Concept of Technology Education

Technology education is the education that is practical-work oriented, It is the education geared towards translation of scientific ideas into concrete realities. It is the education for the production of technologically manpower needs of the society. Also, it is the

education that provides the entrepreneurial skills for labour and productivity with emphasis on eradication of unemployment, poverty and hunger enhancing job creation and wealth generation. Lo mention but a few. The National Policy on Education- NPE (FRN, 2004) defined technology education as that aspect of education that leads to acquisition of practical and applied skills and basic -scientific knowledge. Technology education is also defined as the education geared towards transformation of inputs into outputs which involves rational organizational incorporation of scientific knowledge which encompasses the technical, engineering, managerial, administrative, marketing and consumptive aspects of the whole economy (Ayodele, 1984; and Norman, 1979).

Objectives of Technology Education

The objectives of Technology Education as outlined in the National Policy on Education (FRN, 2004:29) are:

1. To provide trained manpower in applied science, technology and commerce particularly at sub-professional level;
2. To provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development;
3. To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of men;
4. To give an introduction to professional studies in engineering and other technologies.
5. To give training and impart the necessary skills leading to the production of craftsman, technicians, and other skilled personnel who will be enterprising and self-reliant.
6. To enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

What is Unemployment?

Unemployment arises where able-bodied and willing persons who are qualified and capable for a job at a given wage do not find the employment opportunity to do the job. Drighon, (1971) defined unemployment as a situation where those who have no employment are available for work and have engaged in job-seeking activities for four consecutive weeks. Seldom (2001) stated that, unemployment is the involuntary illness of a person willing to work at a prevailing rate of pay but unable to find it. According to Reynold (1990):

Unemployment can be dually classified as voluntary and involuntary. Voluntary unemployment occurs when there is a job available but the unemployed person is not willing to accept it at the giving wage rate. Involuntary unemployment is a situation which exist when members of the labour force are willing and abie to work but does not find paid job.

Types of Unemployment

- i. Factional unemployment
- ii. Structural unemployment
- iii. Seasonal unemployment
- iv. Casual unemployment
- v. Disguised unemployment
- vi. Cyclical unemployment
- vii. Voluntary and involuntary unemployment
- viii. Geographical unemployment (statism, tribalism)

- ix. Mass unemployment (strikes, lock-outs)
- x. Disability unemployment (mental/physical)

Causes of Unemployment

- i. Low level of industrialization
- ii. Poor technology
- iii. Population explosion
- iv. Rural-urban migration
- v. Geographical immobility of labour (statism, tribal and ethnic affiliations).
- vi. Seasonal nature of some industries
- vii. Subsistence agriculture
- viii. Over-dependence in one source economy e.g. crude oil.
- ix. Obnoxious quota system
- x. Lack of essential raw materials.

Consequences/Effects of Unemployment

- i. Loss of personal income
- ii. Fall in national revenue/income (loss of tax)
- iii. Internal and external brain drain
- iv. Increase in social vices and crimes e.g. armed robbery, prostitution, abortion and baby-dumping.
- v. Poor standard of living,
- vi. Political instability/protest at the slightest mistake of the government.

Eradicating Unemployment: A Technology Education Approach

The increasing rate of unemployment in the country can be eradicated using the following approaches:

1. Introduction of technical subjects in schools
2. Provision of adequate materials and equipment for technical subjects.
3. Establishment of trade centers and technical institutions.
4. Value re-orientation on technology education
5. Acquisition of ICT skills and competencies
6. Large-scale industrialization
7. Modernized/mechanized agriculture
8. Encouragement of investors.

1. Introduction of Technical Subjects in Schools

Technical subjects are the subjects that have a lot of entrepreneurial skills for labour and productivity. They go a long way to create job opportunities and wealth generation and invariably, eradicate poverty and hunger. Some of these subjects are: agriculture, home-economics, wood work, metal work, ceramics, leather work, technical drawing, simple mechanics, electronics and basic electricity, local crafts, secretarial and computer studies. These subjects should be introduced at the primary and secondary schools so as to lay solid foundations for self-reliance/self-economic sustainability. Brown (1980) remarked that, for the entrepreneur, the business serves as tile hobby, vocation and creative force. Technical subjects should therefore be-introduced so as to "fill up the inadequacies of the liberal arts curriculum which produced subservient Nigerians viz: catechists, gardeners and stewards etc. Also, in this age of computer technology, computer and technical courses are needed because the global economy is driven by ICT. The ICT has forced industries, companies, organizations and institutions to redefine and redesign their *modus operandi*. Technical subjects and computer literacy are now a *sine qua non* for labour and productivity.

2. Provision of Adequate Materials and Equipment for Technical Subjects.

Technical subjects require laboratories, workshops and numerous equipment. The Intro-Tech lab for instance, requires so many machines, tools and safety gadgets such as plumbing machine,

hammer and nails, workshop coats, goggles and shields for welding, sinks and special waste bins, respirations for gas and chemical fumes. Others are safety boots and hand gloves for handling toxic materials and chemicals. Workshops also require fire extinguishers, water hydrants and first aid kits. Emergency exit is also necessary for every workshop. The government should provide these materials in adequate quantities so as to enhance the teaching and learning of technical subjects in order to achieve the goals of technical education particularly on the production of craftsmen, technicians and other skilled personnel who will be enterprising and self-reliant. Rosenwcig (2000) stated that, inadequate provision of learning materials leads to the turn-out of low levels of education stocks that make it difficult to implement complex growth-inducing technologies and productivity enhancing practices.

3. Establishment of Trade Centers and Technical Institutions.

To reduce unemployment in Nigeria to the barest minimum, trade centers and technical institutions should be established in various parts of the country for the acquisition of requisite knowledge and skills needed for job creation and self-economic sustainability. Therefore, there is the need that the following courses should form the curriculum of the trade centers/technical institutions: Agriculture, Building Technology, Home-Economics, Secretarial Studies, Accountancy, Business Education, Wood Works and Furniture, Leather Works and Shoe Making, Textiles/Cloth Making, Brewery (beer, wine and fruit drink production etc).

4. Value Re-Orientation on Technology/Education

To eradicate unemployment through technology education, there is need for value re-orientation. This is because the people have been brain-washed on the- concept of technology education and that misconception is still there. It has been described as the education for school drop-outs, the underprivileged, never-do-wells, social deviants, mentally and physically retarded. There is need to correct the erroneous misconceptions through value re-orientation of the people on technology education as the education that provides the requisite knowledge and skills for productivity in every sector of the economy. Greater emphasis should be placed on its aspects of job creation, self-reliance/self-employment which provides income for eradication of poverty and hunger, Nyerere (1974) stressed the importance of technology education when he stated, "education is the liberation of man from the restraints and limitations of ignorance and economic dependency.

5. Acquisition of ICT Skills and Competencies.

ICT means Information and Communication Technology., The world of work today both in public and private sectors is technology-based. The advanced and sophisticated technology have forced businesses, industries, companies, organizations and institutions to redefine and redesign their operational technologies and management. For instance, bank transactions are getting more and more complex with the use of Automated Teller Machine (ATM). The media houses viz: radio, television and newspaper etc are connected to the Internet. To read the news online and print, requires ICT knowledge and skills. Also, to work in banks and other sectors of the economy today e.g. PHCN, NITEL, NIPOST etc requires ICT knowledge and skills. Where the job-seeker is not computer literate, he cannot face the challenges of the competitive employment hassles. The Danish Ministry of Education (2001), pointed out that, knowledge and skills in computer are the key factors for production in the 21st century.

6. Large-Scale Industrialization

Unemployment can be shunned and employment entrenched through large-scale industrialization. Both small-scale, large-scale, private and public industries should be allowed to grow in both rural and urban areas. The government should encourage industrialization by providing incentives to investors in manufacturing industries so as to enable the industries provide job opportunities for the various types of job-seekers. The incentives will include creation of industrial estates particularly in rural areas in order to avoid rural-urban drift. Others are provision of adequate infrastructures which include: good road networks, electricity and-regular water supply. Also, manufacturers will be allowed to import basic raw materials duty-free or at a very low import duties. One reads with dismay, the Thisday Newspaper (Sept.9, 2008:10) on the title "Graduates as office

cleaners". This goes to point to the high rate of graduate unemployment in the country. Labour is a factor of production. Therefore, we need to make our industries more labour intensive in order to create employment for our teeming graduate population.

7. Modernized and Mechanized Agriculture

Modern/Mechanized agriculture is one of the greatest technologies that can be used to combat the unemployment situation in the country. The government should modernize agriculture so as to make it attractive to the youths, the educated, fresh and old graduates. Agriculture should be made to have a more scientific base through the use of machines such as tractors and harvesters. The primitive type of agriculture that consists of the use of hoes, machetes, digger and human labour should be jettisoned. The government should subsidize agricultural materials such as fertilizers and insecticides. The government should also supply adequate quantities of high yielding crops to farmers at reduced rates. This will go a long way to achieve the objectives of job creation and wealth generation. Poverty, hunger and disease will also be eradicated because the people will have enough to improve their standard of living.

8. Encouragement of Investors

To reduce unemployment in this country to its lowest ebb, both local and foreign investors should be encouraged using these strategies.

- (a) Maintenance of political stability
- (b) Provision of adequate security
- (c) Tax reduction
- (d) Regular power supply
- (e) Good road networks.

Recommendations

This paper recommends as follows:-

1. To reduce the high rate of unemployment in the country, the government should introduce technical/vocational subjects in primary and secondary schools so as to lay solid foundations for vocational/self-reliant occupations.
2. The government should establish trade centers and technical institutions in various parts of the country. The centers should be well equipped so as to achieve the objectives of technology education by providing trained manpower in applied science, technology and commerce.
3. Since the global economy is driven by Information and Communication Technology (ICT), the government should encourage the acquisition of ICT skills and competencies by procurement of adequate computer hardwares and softwares, Internet and e-mail facilities for effective teaching and learning of the skills and competencies.
4. The government should improve the primitive type of agriculture to a modern/mechanized type. Agriculture should be made to have a more scientific base by procuring tractors and harvesters, fertilizers, insecticides and improved seeds, food and cash crops. Agric loans should be given to farmers. New farm settlements should be established while the old ones like the Igbariam and Ugwuoba farm settlements in the old Anambra State should be rehabilitated for effective functioning.
5. Large-scale industrialization should be encouraged by the government in order to eradicate unemployment and to achieve the objectives of technology education on the provision of knowledge and vocational skills necessary for agricultural, industrials, commercial and economic development.
6. The government should provide effective national policy on labour mobility that would abolish statism, ethnic and tribal affiliations in employment, appointment and promotions. Equal opportunities should be created for all workers irrespective of states of origin.

Conclusion

Technology education is the education that provides the requisite knowledge and entrepreneurial skills for self-reliance, self-employment or self-economic sustainability. From the

nature of the subjects in technology education viz: Agriculture, Home Economics, Wood Works, Metal and Leather Works, Secretarial and Computer Studies etc, it is the only type of education that can create job opportunities and wealth which is one of the goals of technology education and that of National Economic Empowerment and Development Strategy (NEEDS). With large-scale industrialization, improvements in agriculture through the use of modern techniques and machines, so many job opportunities will be created and unemployment will be drastically reduced.

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