

# TECHNOLOGY EDUCATION AND NATIONAL DEVELOPMENT

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## **Abstract**

There is massive unemployment in Nigeria. The labour market could not absorb the graduates of the liberal arts. The aspiration of the government and Nigerians was to use technology education to fight unemployment, economic recession and shortage of skilled manpower (Olaitan, 1995). Nigeria as a nation cannot industrialize and develop economically without a capacity to master and manipulate its environment, such capacity comes through technology education, Technology education plays an important role in providing for skilled workers for economic base of a nation, it takes care of the magnitude and rapidity of change. The introductory part of this paper explains the need for self-reliance through technology education and among other things, outlined the aim of technology education as contained in the National Policy on Education. This paper discussed the role of technology education and suggests measures for effective technology education. It concludes with some recommendations.

## **Introduction**

The need for Nigeria to become self-reliant has become more urgent now that there is unemployment of our school leavers at all levels This contributed to high level of crimes. According to Nwodo (1997:66) technology advancement of any nation is based on the quality and quantity of the nation's scientific and technological manpower. The philosophy of technology education has always been oh the acquisition of saleable skills for the youths which make them to become labour assets for industries and useful to the entire society. The National Policy on Education (1998:28) defines technology education as "that aspect of education, which leads to the acquisition of practical and applied skills as well as basic scientific knowledge". Ayodele (1984) describes it as "the education geared towards the transformation of inputs into outputs which involves rational organization and incorporation of scientific knowledge into a system of production ...". From the researcher's point of view, technology education is that aspect of education that helps one to develop a skill that manifests in scientific, agricultural, industrial and commercial Undertakings. Development of a skill is very essential because it leads to self-reliance, it is a key to national development.

According to the National Policy on Education, (1998:28) the aims of technical education should be:

- (a) To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.
- (b) To give an introduction to professional studies in engineering and other technologies.
- (c) To provide trained manpower in applied science, technology and commerce particularly at sub professional grades.
- (d) To provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.
- (e) To give training and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be enterprising and self-reliant etc.

If the above aims are achieved, the nation will be self-reliant. Self-reliant means ability to rely on one's own ability. The Longman Dictionary of Contemporary English 'New Edition' defines self-reliance as ability to decide what to do by oneself, without depending on the help or advice of other people. This self-reliance provided by technology education is of paramount importance that its need is studied.

## **The Role of Technology Education**

The need for self-reliance through technology education: Generally the strength of any

nation is measured by the number of scientists and technologists she can produce to demonstrate her ingenuity and level of development in science and technology. For any nation to advance in development, self-reliance is very necessary. For the nation to be self-reliant, the nation needs to develop technologically. With our 35 universities, about 39 polytechnics and more than 30 colleges of education, we should be self-reliant to be able to absorb and accommodate the graduates from all these institutions. A self-reliant nation witnesses less incidents of crime, unemployment, economic recession and shortage of manpower. According to Nvodo (1997:66) technological advancement is based on the quality and quantity of her scientific and technological manpower. Equally the path to political stability will be a lot smoother and easier if we are able to generate wealth through technological applications, which makes the individuals, youths and graduates less financially dependent on the central government.

There are other roles of technology education apart from making a nation self-reliant. Technology education plays an important role in providing skilled workers for the economic base of a nation. It has the capabilities of taking care of the magnitude and rapidity of change. It prepares youth for employment in industries, commerce and other enterprises by exposing them to experiences that provide the manipulative, cognitive and attitudinal skills that make them qualify for the job.

Furthermore, technology education gives training and helps in the acquisition of necessary skills leading to the production of craftsmen, technicians and other skilled personnel who can apply scientific knowledge to the improvement and solution of environmental problems. Hence Okongwu (1986) asserts that "Massive unemployment, which has been evident for at least two decades has now reached alarming rate and involves all categories of labour, skilled and unskilled persons" university graduates and specialist individuals. Mkpia (1994) also revealed that there was shortage of manpower in certain areas in spite of large scale unemployment as shown in 1986 study of Nigeria's available manpower. On revitalizing all the roles of technology education, the writer calls for continuity of technology education and highlights the measures to enhance technology education for national development.

### **Measures for Effective Technology Education For National Development**

The measures include:

- (a) Motivating and re-training of teachers.
- (b) Adequate funding.
- (c) Provision of facilities and laboratory equipment.

#### **Motivating and Re-Training of Teachers**

Motivation is the key to learning (Okeke, 1986). When a teacher is not motivated, he will be less devoted to duty. Also we need re-training of teachers to blend with new trends in technology. There should be re-training of teachers through workshops, seminars, conferences, projects etc.

##### **a) Adequate Funding**

Technology education should be well funded so as to enhance national development. There is need for adequate funding to encourage research, provide money for purchasing materials and equipment, provide money for regular payment of teacher's salary. Agun and Imogie (1988) remarked that 'finance is one of the crucial factors that determine the range of equipment, materials and services that can be provided'.

##### **b) Provision of Facilities and Laboratory Equipment:**

Adequate facilities and technology teaching equipment should be provided in our schools. Enough laboratories should be built and well equipped. For effective technology education, the Federal Government should give prior attention to provide schools with equipment and materials they need. Using equipment to teach help students to clarify facts of imagination already in the brain.

### **Conclusion**

It is clear that for a country to be a developed nation, technology education is needed which

helps to fight unemployment, economic recession and shortage of skilled manpower. It prepares youth for employment in industries, commerce, and other enterprises by exposing them to experiences that provide the manipulative, cognitive and attitudinal skills that make them qualify for it. They produce engineers, technicians and craftsmen. Technology education predominantly makes a nation to be self-reliant. Having gone through the over-whelming roles technology education plays in our national development, I suggest some measures to enhance effective technology education for national development. These measures include:

- (a) Motivating and re-training of teachers.
- (b) The provision of adequate funds for purchasing tools and equipment.
- (c) There should be adequate facilities and equipment for practical work.

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