

TECHNOLOGY EDUCATION FOR ECONOMIC REHABILITATION AND RELIANCE

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Abstract

This paper considered the steps for technological education comparing other forms of education like the University education to further buttress the importance of technology education to the present stage of our nation's advancement. Technology is used inter-changeably with polytechnic education in this paper. The pre-requisite for skills will provide trained man-power for proficiency in the various professional and sub-professional grades in applied sciences, technology and commerce. Nigeria relies mainly on the importation of foreign made goods from abroad instead of developing our own prototype that will bring creativity among the people which will make them economically buoyant, rehabilitated and self reliant.

Introduction

Technical education as a concept has been defined in different ways by scholars. Oriaifo (1985) opined that technical education is that education which vitalizes technology in its totality. He further notes that it usually requires knowledge, specialization and skills. In addition these are science, scientific designs such as engine drawing for the engineering and its many branches. Technical education is oriented towards problems solving with the real aim of developing the quality of the living standard of the people and striving towards economic rehabilitation and reliance. Uujamhan [1998] believes that technical education is essentially for building technological foundation and the creation of the requisite cultural economic structure systems as it is instrumental to the generation or maintenance of wealth on a sustainable basis.

The Relevance of the Nigerian Education

Education is an instrument for enhancing development in all spheres of professions or occupations of life. Educations inculcates the societal values into the people and make them functional members of the society. These are relevant values that are within the context of the generality of the nation as a whole and the world at large. These relevant values are inculcated into people through functional and qualitative education. The essence of education is to inculcate national values into the people, this is clearly stated in the National Policy on Education (1998) as follows:

- (a) To create in them values such as national consciousness, national unity, a sense of national /personal survival, respect for the worth and dignity of labour, faith in man's ability to make rational decisions, sense of shared responsibility and others.
- (b) Skill development role by which the Nigerian education system is expected to develop in recipients certain skills to enable the citizens to contribute to economic growth of the nation and earn money for personal living.
- (c) Knowledge or information role, which involves imparting the appropriate knowledge in Mathematics, English, Economics, Religious Studies and others to help recipients in understanding the world around them.

These values form the objectives of the Polytechnic Education in Nigeria. The main objectives of technical education as stated in the National Policy on Education (Revised 1998) are:

- (a) To provide trained manpower in applied sciences, technology and commerce particularly at sub- professional grades;
- (b) To provide technical knowledge and vocational skills necessary for agricultural industrial and economic development;

- (c) To provide people who can apply scientific knowledge to the improvement and solution of environment problems for the use and convenience of man;
- (d) To give an introduction to professional studies in Engineering and other technologies;
- (e) To give and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be enterprising and self-reliant;
- (f) To enable young men and women possess intelligent understand of the increasing complexity of technology.

In accordance with these objectives of technical education as stipulated in the National Policy on Education (1998) the Federal Polytechnics were established to enable the following:-

1. Full-time and part-time courses in technology, applied sciences, commerce and management.
2. In the field of applied learning relevant to the needs of the development of the Nigerian economy in the areas industrial, agricultural production and distribution, research development [Decree No. 33 quoted in Musa (1989) Thus Polytechnics in Nigeria were established with a guiding policy of effecting the technological development of the nation.

Technological Development In Nigeria

The developed nations constantly study their needs and strive to improve on the quality of their products as well as meet these needs. Through constant research development of the invention of new products and technologies for enhancing the standard of living of its citizenry, these nations work very well to export their qualitative and quantitative products and thus enrich their economy. The developed nations encourage inventions in all its revivifications and strive towards regular improvements of their goods. We in Nigeria are a consuming nation rather than a manufacturing nation. Technological growth in Nigeria which is a developing nation has not been grasped positively. This is because, we rely mainly on the importation of foreign goods from developed nations abroad instead of developing our own prototype that will bring creativity among the people which will make them self-reliant. This is the basis of Japanese technological and industrial development which has placed them as one of the powerful economic giants in the world today.

They are versed in industrial and technology to a great extent that they are major world exporters of modern technology for economic rehabilitation and reliance. The hazards of transfer of technology are already here with us in Nigeria because of our total dependence on technology imported which in most cases do not relate to the needs, aspirations and situations of our local settings. Lack of technological know-how on the methods of installation, maintenance, ability to have the spare-parts for industrial machines as the need arises are some of the factors that hamper Nigerian technological take off. Maintenance of equipment is needed with specially trained man-power to ensure regular maintenance. Inadequate trained man-power that are technologically and scientifically sound can hinder the technological education for economic rehabilitation and reliance. Thus the essence of the polytechnic education is to produce manpower for the society that is technologically sound. This was aptly put in Guardian newspaper of 22nd September 2000, where Onyeka-Ben citing former Rector of Federal Polytechnic Idah Dr. Sam Chukwujekwu who outlined the disparity between Polytechnic and University education. He is of the opinion that Polytechnic's position in the technological and economic growth of a nation is inalienable, and points out that its funding is very low when compared with the University.

The high scale of preference given to University graduates is too wide when compared side by side with their Polytechnic counter-parts. To change this sad situation where the graduates of the **Polytechnics** are unduly under rated to their University counter-parts. **Dr. Sam Chukwujekwu** on a lecture observed that:

There is need for a quick transformation of the character of Nigerian

Polytechnics to empower them through a good technology base to play a more dynamic role in the development of the nation. He concluded that much has not been done by way of good policy formulation and implementation by the Federal Government.

Wakama (1978) opined that technological development will be of great significance and service in society if it is adequately related to the needs and circumstances of the rural and urban populace for economic rehabilitation and total reliance. The technological knowledge we need must be that which can meet the needs of our immediate environment in terms of our requirements, the raw materials to create and produce the goods or products and the technical knowledge to repair, service and maintain the equipment from time to time. The clarion call for technological development in our nation's educational system have made Polytechnic education important in the attainment of self-reliance. Technological education must, therefore, be fashioned to enhance the achievement of the goals of this strategy. In fact, education at all levels must help to accelerate technological growth. The objectives of Polytechnic education as enshrined in the motto of Auchi Polytechnic, Auchi appears to be directed to meeting this goal than any other form of education in the country. The shift in focus from the main objectives of establishing the Polytechnics, can be seen in situations where the graduates of Polytechnics are being neglected and their staff are not allowed to go for on the job training. As a result of this, some of the lecturers lack practical experience. Continuous industrial experience is very necessary for the lecturers of technology to enable them keep abreast with the fast changing world of technology. Staff should be encouraged to attend seminars, conferences, workshops and symposiums in order to keep the lecturers in proper focus. Grandaunts from the Polytechnics who are specialists in their various professions are given middle man-power positions; this does not create job satisfaction for the worker. At a convocation ceremony of Plateau State Polytechnic, Ango (1988) listed some projects executed by Polytechnics. Some of such projects are as follows:

1. Ceiling board from maize chaff.
2. Modified pepper grinding machine.
3. Solar distribution unit.
4. Four-wheeler cart for two persons.
5. Solar cooker.
6. Cassava grating machine.
7. Egg incubator using hot air heating.
8. Maize sheller.
9. Winnower for cleaning rice and beans.
10. Instant Akaniu powder Universal block-making

Machine capable of producing 9", 6" and 4" standard building blocks in a single machine. Melon separator (Auchi Polytechnic National Diploma NDII 2002/2003 session) More researches can be conducted if the encouragement in cash and training are made available to the lecturers for rehabilitation and reliance.

Technology Education For Economic Rehabilitation and Reliance

Technological education is essential for building foundation and the creation of the requisite socio-political cultural and economic structures. Unjamhan (1988) observed that the systems of technology are instrumental to the generation and maintenance of wealth on a sustainable basis. Products of technological education can readily handle jobs on planning, research, control, maintenance and productivity. Since technological education is designed to develop skills, abilities, understanding, attitudes, work habit and appreciation that confer knowledge needed to enter and make progress in employment on a useful and productive basis. It covers a very wide range of fields including catering, agriculture, business studies, commerce, home economics, painting, decorating, mechanical engineering, electrical engineering, survey estate management, geo-informatics, and town-planners etc.

Thus, there is need for proper attention to be given to Polytechnic sector, if the nation's effort towards self-reliance is to be achieved. Based on this, the paper makes the following suggestions.

Recommendations

Technological education is capital intensive, hence the government should endeavour to provide the needed fund to aid the growth and development in infrastructure and other vital industrial equipment to boost technology such as:-

- 1) Purchasing consumable materials for effective practical exercise for students' projects and maintenance work.
- 2) Adequately equip the library as a resource centre.
- 3) Adequately equip laboratories and workshops.
- 4) Employ qualified and experienced technical educators to teach in programmes.
- 5) Build suitable accommodation for teaching facilities.
- 6) Provide adequate welfare service scheme for staff in the institution.

Conclusion

I wish to request that more emphasis be placed on judicious adherence to standards set out in our course content for studies and re-focus towards ensuring that technology education is geared towards the technical needs of the general populace.

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