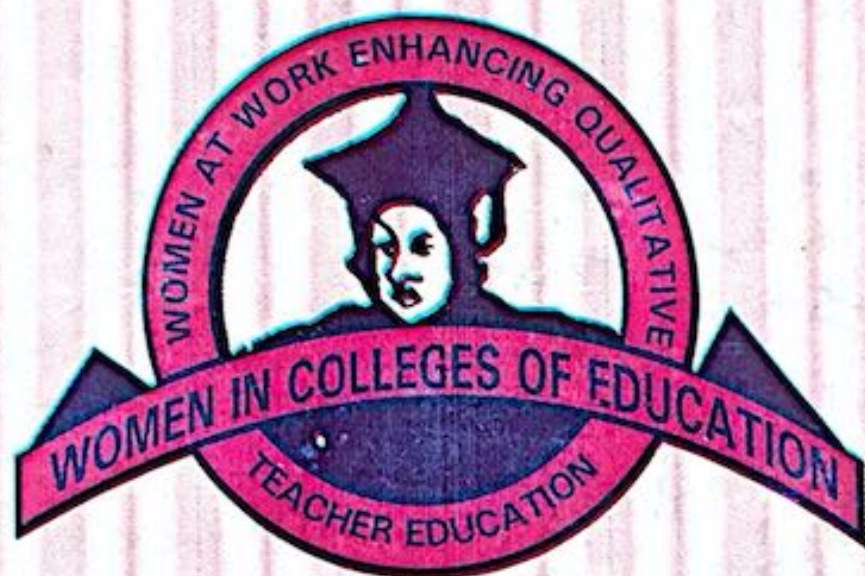


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# REFOCUSING SCIENCE AND TECHNOLOGY EDUCATION FOR POVERTY ALLEVIATION IN NIGERIA: IMPLICATIONS FOR COLLEGES OF EDUCATION

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## ABSTRACT

*The standard of living in Nigeria has many indexes to be classified as being below the poverty line. Most Nigerians hardly have access to three nutritionally balanced meals daily, while majority of them live in crowded, poorly ventilated houses, and cannot afford the luxury of new clothes and other good things of life. The political solution to poverty through the "Poverty Eradication Programme" of the government at the centre stands to benefit political party faithfuls and loyalists to the detriment of the nation. Hence a broad-based approach to poverty alleviation through the acquisition of formal and non-formal Science and Technology Education in the Colleges of Education stands to ameliorate the scourge of poverty that is presently afflicting most families in Nigeria.*

## INTRODUCTION

The quality of education which a nation provides for its citizens may be measured in terms of how purposeful the learning experiences derived therefrom can be translated into fashioning out a meaningful subsistence economy. In the era penultimate to the world oil glut and global economic recession, every educated Nigerian (be it College, Polytechnic or University Education) was sure of a paid job soon after graduation. This position has changed since the new global economic dispensation such that young school leavers and graduates from Colleges of Education and Universities now face serious unemployment after leaving school. Nwaokolo, (1997), quoting a report by Oranu, (1990), posited that there were over three million unemployed people in Nigeria, three quarter of which were calculated to be below the age of 25 years. Dabban and Abbas, (1998), lamented that the Western colonial administrators bequeathed on Nigerians an educational system that lacked technical inputs but rather produced people with capacity for white collar jobs. This accounted for most people enrolling for and obtaining degrees in

disciplines that promoted competition for non-skill oriented jobs. The publication of the National Policy of Education (revised in 1981) brought into focus the need to diversify potentials for viable non-white collar job through science and technology education.

Science and technical teacher education as obtained in Colleges of Education was envisaged to be run as professional courses where recipients of instructions would join the teaching profession.

While the vision adequately provided course contents for Business, Agricultural Science, Home Economics and Technical Education respectively that could enable the recipients of instructions to diversify their employment potentials, the sciences were not as lucky. Furthermore, the embargo placed on civil service employment by military rule in Nigerian created years of accumulated populations of unemployed science teacher education graduates from Colleges and Universities. For lack of appropriate employment the craving for survival humbled most of them into taking up menial jobs that only left them groping within the poverty bracket. Another group of poverty stricken Nigerians are those comprising of mainly youths, women and children who were not privileged and do not have the potential to attend formal education for competitive job opportunities, and lack the capacity for any trade apprenticeship. Alleviating poverty for the educated and the uneducated poor through the Colleges of Education Science Programmes shall be the main thrust of this paper.

## **MEANING AND ESSENCE OF SCIENCE AND TECHNICAL EDUCATION**

Eze, (1997), inferred that Science is concerned with detailed investigation of natural concepts and phenomena through the rigorous process of observation, classification, measurement, and experimentation, so as to use available knowledge to predict events likely to occur in other circumstances. Science education can therefore be conceived as the application of the essential drives behind scientific processes into the diversified facets of human enterprise in the environment for a better living.

Technical and technology education is used interchangeably to mean the same thing in this paper. According to the National Policy on Education (revised in 1981), in Njoku (1999), technical education refers to "that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge". For Olawepo, (1992), in Jibril, (1998), technical education is "a type of education or training designed for preparing the individual learner to earn a living"

## SCIENCE AND TECHNICAL EDUCATION PROGRAMMES IN COLLEGES OF EDUCATION

Akpan, (1986), noted that science related courses in higher institutions face low student enrolment, which Ukpene, (2001a), ascribed to the fact that science education does not provide easy means for money making or self employment. While NCE technical education equips learners with basic skills for self-reliance, the equipment are usually too expensive to be sourced by the learners upon graduation. On the other hand, science course programmes in Colleges of Education are structured in such a way that recipients of instructions are generally prepared for teaching the science subjects in primary and junior secondary schools.

## CONCEPTUAL EVALUATION OF POVERTY

The standard of living of a people is often expressed in their ability to meet the basic needs of food, shelter and clothing. In terms of food, most Nigerians scarcely observe nutritionally balanced meals three times a day. Majority of Nigerians literally scavenge for food while Mohammed, (1998), noted that the *almajiris* go about with bowls in hand and beg for food in order to survive. Shelter does not present an attractive relief to the accommodation problems facing most Nigerians as it is not uncommon to find large families crammed into one room in Lagos, Abuja and other major cities. In terms of clothing most Nigerians have since lost the luxury of new clothes because of exorbitant prices. The "bend-down" boutiques now provide succour to the clothing needs of parents and working class Nigerians who do not mind the sources of the second-hand clothes and possibilities of contacting communicable diseases from them. Academically, it is not possible to give the actual figure of Nigerians actually afflicted by the scourge of poverty.

Poverty are caused by various things among the Nigerian populace. On one hand, it could be inherent in which case someone is borne into it without being able to extricate himself from its apron strings. Inherent sources of poverty include the extended family system, illiteracy, large family sizes and social redundancy. On the other hand, poverty could be ascribed in which case it is caused by circumstances extraneous to the individual such as unemployment, sudden death of breadwinners and prolonged delay in payment of gratuities and pension benefits to retirees.

## CONSEQUENCES OF POVERTY

**Poor family health-care:** Poor financial status incapacitates the desire

business enterprises. Due to the capital intensive nature of establishing small-scale business enterprises, graduates of the suggested Basic Vocational Training Programme should be given initial take-off grants by the three tiers of government. The NCCE should evolve a uniform module for instruction to ensure uniformity between Colleges of Education. It should also accredit a number of colleges across the country for the trial implementation of the programme.

### **FURTHER RECOMMENDATIONS**

The scourge of poverty could be ameliorated if the afflicted are willing to make some radical changes in their lives. While ascribed poverty may be beyond the capability of the people to reasonably effect changes, inherent poverty could be brought to a minimum level through some of the following;

- i) Some traditional societies should be encouraged to review their position that the dual role of women lie in baby making and in the kitchen. They should be advised to allow their women to pick up paid employment because the advantages to poverty alleviation are enormous.
- ii) More rigorous campaign should be mounted to convince most Nigerians to appreciate the values of modern family-planning techniques so as to raise the number of children they may adequately cater for.

### **CONCLUSION**

The agonizing experience of not being able to meet one's family's basic needs of food, shelter and clothing due to either illiteracy, unemployment and underemployment exerts an excruciating aberration on the psyche of the afflicted. It is therefore essential that the colleges of education, through some strategic curriculum reforms, be saddled with the veritable task of providing basic, street, entrepreneurial science and technology education for poverty alleviation for the employed poor, unemployed as well as the uneducated poor in the country.

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