

# THE ROLE OF VOCATIONAL AND TECHNOLOGY EDUCATION IN THE ATTAINMENT OF THE MILLENNIUM DEVELOPMENT GOALS IN NIGERIA

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## **Abstract**

Vocational technology education is a powerful revolutionary force in national development. Education is a vital organization for the development and advancement of vocational technical education for the purpose of worthwhile living. Nigerian government is playing lip service to technological development of the nation by paying little or no attention to vocational technical education and training in the country. The major objective of the millennium development goals is for poverty eradication and human development. This paper takes a look at the place of vocational technology education in the attainment of the millennium development goals in Nigeria. It is recommended that government should revisit the funding policy of vocational technology education and provision of sufficient fund for students industrial work experience scheme (SIWES) to improve the bartered image of the programme.

## **Introduction**

Vocational technology education includes preparation for employment in any occupation for which specialized education is required, for which there is a societal need, and which can be most appropriately done in schools. This form of education is concerned with the entire hierarchy of occupation from those that require relatively short periods of specialized preparation to those that require two or more years of specialized education. This includes the entire spectrum of the work force from semi-skilled workers to technicians and paraprofessionals.

Okorie (2001) defined vocational education as that form of education, which develops the mental and physical qualities of people thereby increasing their skills, knowledge and attitudes required for utilizing the natural resources needed for economic development of the nation and for their own self improvement. Robert and Thomas (1973) stressed that the totality of vocational and technology education programme is to create jobs and only programmes that result in employment that is satisfying to the employee and the employer can be justified as the only feasible policy that is capable of creating wealth in the society.

It is necessary that educational planners responsible for vocational and technology education programme, should be aware of national labour market trends. The most significant trend is the sharp discipline in the number of skilled workers in the work (labour) force. The drift from goods producing occupations to service producing occupations is another trend. The local administrators of vocational and technology programme must equally be aware of local trends. There is a great and urgent need of providing vocational and technology education and training of this character in every part of Nigeria. There is therefore the dire need to also conserve and develop our resources, to promote a more productive and prosperous agriculture and the emerging solid mineral, to prevent waste of human labour to supplement apprenticeship, increase wage earning power of the productive workers, increase the demand for trained work men and to offset the increase in cost of living. Vocational and technology education is therefore needed as a wise investment for Nigeria nation, because our national prosperity and happiness are at stake and our position in the global market in Africa cannot otherwise be maintained. Technical and vocational education is an integral part of the National Policy on Education Blue Print that needs not to be discarded rather given serious and adequate attention.

Technology and vocational education is all about learning to do things through instinctive and manipulative skills that is capable of producing concrete results in terms of production, manufacture and fabrication of equipment, tools and physical skills perhaps in the field of Agriculture, Mechanical technology, wood work, electrical installation and maintenance and others. This aspect of education is very crucial to the growth and success of our national economy, that the role of vocational and technology education in the attainment of the millennium development goal be ascertained.

### **The Millennium Development Goals**

The Millennium Development Goals (MDGs) objectives were approved by the United Nations in the Millennium Declaration in the year 2000 which are to be achieved in 2015. The major aim is for poverty reduction and enhances human development. The MDGs are eight which set targets are as follows:

**Goal 1:** Eradicate extreme poverty and hunger. Targets are to halve, between 1990 and 2015, the proportion of people whose income is less than one dollar per day. Halve between the same periods the proportion of people who suffer from hunger.

**Goal 2:** Achieve Universal Primary Education. Target is to ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

**Goal 3:** Promote gender equality and empower women. Target is to eliminate gender disparity in primary and secondary education preferably by 2015 and to all levels of education not later than 2015.

**Goal 4:** Reduce child mortality. Target is to reduce by two-thirds, between 1990 and 2015, the under-five mortality ratio.

**Goal 5:** Improve maternal health. Target is to reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

**Goal 6:** Combat HIV/AIDS, malaria and other diseases. Target is to halt by 2015 and begin to reverse the spread of HIV/AIDS. Halt by 2015 and commence to reverse the incidence of malaria and other major diseases.

**Goal 7:** Ensure environmental sustainability. Target is to integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources. Halve by 2015, the proportion of people without sustainable access to safe drinking water. By 2020 to have achieved a significant improvement to the lives of at least 100 million slum dwellers.

**Goal 8:** Develop a global partnership for development. Targets are to develop further an open rule-based, predictable, non-discriminatory trading and financial system. Address the special need of land located countries and small island developing states. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term (The Millennium Development Goals, Report, 2006).

Having highlighted the millennium development goals, it will be pertinent to discuss the place of vocational and technology education in the attainment of the goals.

### **Vocational Technology Education and the Attainment of Millennium Development Goals**

The present millennium as already indicated presents us with the challenges of evolving an economic dispensation that is industry based. It presents the globe with the goal of improving human life through the full harnessing of opportunities and challenges presented by vocational education. One of the major goals of the present millennium mainly for Nigeria and other African countries is adjusting to the world which is fast becoming information driven. A world which has become a global village operates through information technology. The attainment of these goals is highly tied to the attainment of a high level of vocational development. This will only be possible through a robust and pragmatic vocational and technology education programme. Kum (2001) asserted that if adequate attention is given to vocational technical education, it will go a long way in solving the nagging problems of un-employment and attendant national life. Kum further observed that Nigeria can break even only with renewed emphasis on vocational and technology education. In furtherance, Aboyi (2003) observed that the inability of Nigeria to make an appreciable impact in terms of real development is largely the result of her low commitment to the pursuance of a viable vocational education programme. These views are in line with the opinion of Denga (1999) who posited that industrial development is hardly possible without a firm foundation in science and technology. Denga further noted that a technological bankrupt nation can hardly forge ahead in industrialization. As such the present low rate of industrial development in the country is the out come of inadequate technological base.

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The goals of the millennium is firmly rooted in the improvement of life though the effective application of science and technology. In the present millennium a nation's wealth is no longer determined in the availability of natural resources rather in the application of science and technology to impact the resources positively on the life of the citizens. This view is in line with the opinion of Arowolo (2001) who stated that the wealth of the nations does not come from the availability of resources but in the utilization of such resources to bring about improvement in the living conditions. As such a technological project is the greatest influence on the productivity of resources.

Nigeria is among the few nations of the world that are richly blessed with abundant natural resources and it is one of the poorest countries in the world in terms of her capital income. This situation is as a result of the inability of the nation to effectively utilize her abundant natural resources as a result of inadequate technical manpower (Osuala, 1987). Commenting on this, Arowolo (2001) opined that the problem with Nigeria is that its resources are largely idle in the face of an acute need by government to expand the choices available to the people. The effective harnessing of these resources through the application of science and technology is still a major goal of the millennium for the Nigeria nation. There is every need to refocus on vocational and technology education programme in order to enhance the accumulation of human capital or productivity intelligence which is a veritable factor for industrial breakthrough. An effective vocational and technology education programme is a vital factor to free Nigerians from the present quagmire of political instability, poverty and general economic backwardness mainly this time when the entire world is experiencing global economic meltdown.

The millennium has one of its goals to eradicate poverty and hunger which entails maximum exploitation of resources through the cheapest and effective means. It seeks to optimize human and material resources as a way of enhancing the improvement of life. Any country that fails to achieve this goal through the application of science and technology will loose and inevitably remain captive. Countries that are not able to accumulate human capital particularly in science and technology would remain exploited by other countries in this millennium. The change which characterizes this millennium is such that places emphasis on industry based economy. The emphasis is on complete mechanization of agriculture and the automation of all forms of human transactions. The world today is fast becoming completely automated. On a daily basis there is improvement in Information Technology (IT). For Nigeria and other African nations the only way not to be left out of this revolution is to improve our vocational and technology education programme. Vocational and technology education among others provides the basic point of take-off in the bid to achieve industrial revolution and ultimately the effective harnessing of the nation's abundant natural and human resources for the eradication of poverty and hunger which is a goal of the millennium. The world on a daily basis is witnessing new inventions in science and technology. Human relationships across the globe are realized in very fast successions and competition for the acquisition and improvement of novel and existing technologies is coming stiffer. It is extremely dangerous for any country of the world to risk being left out in this revolution that is their new millennium by the failure to improve her vocational and technology education.

### **Efforts of the Government to Enhance Vocational Technology Education Programme**

To actually realize the crucial place of vocational technology education in the attainment of the Millennium Development Goals, there is a great need to ascertain the state of vocational and technology teachers in the country. For proper vocational and technical training of citizens of this great nation, the National Policy on Education (1998) revised 2004) provides that students of vocational education shall acquired work experience before they qualify for the award of the National Diploma (ND), Nigeria certificate in Education (NCE) or Bachelors Degrees as the case may be. The National Board for Technical Education (NBTE) was established by the government in 1977 and it gave a giant stride to vocational and technical education. This board regulates, controls and monitors the standard and development of colleges of technology and polytechnics in Nigeria. National Business and Technical Examinations Board was established in 1992 in order to conduct vocational technology examinations at the secondary school certificate levels. The certificates are the National Technical Certificate (NTC) and the National Business Certificate (NBC). To further emphasize the importance of vocational technology education, different governments in the country has shown burning desire, which lead to the establishment of Technical Teachers' Training Programme

(TTTP) institute which encourages mass training of vocational teachers. Despite these moves by the government to put vocational technology education in its rightful place, it worthy to note that vocational technology education teachers production is confronted with numerous problems.

### **Problems of Vocational Technology Teachers Production**

Many problems abound hindering production of vocational and technology teachers in Nigeria which will move the nation achieving the laudable millennium developments goals. Among the numerous shortcomings are:

1. Insufficient place for student's industrial work experience scheme.  
The SIWES was established for student to acquire work experience in industries before qualifying the award of bachelor degree, Nigeria certificate in education or national diploma in relevant filed. Industries these days no longer absorb students for the work experiencing owing to one reason or the other. Those absorbed are no longer given adequate supervision if any by the Industrial Training Fund (ITF) due to inadequate fund needed for finance the programme from the government.
2. Government Insensitive to Vocational and Technology Education.  
Before the year 2002, the federal government was paying due attention to technical teachers with the establishment of the Technical Teachers Training Programme (TTTP) in most of the institutions in the country. It is pertinent to note that since 2007 awardees of the programme have not being paid their allowances and since 2004 the programme is no longer in existence. This reduces the number of vocational and technology teachers on training.
3. Poor Funding and Poor Management of Fund. Lasa (1999) listed things like poor equipment, poor infrastructural facilities and development, unhealthy industrial relations among others, as a result of poor funding of teachers production. Lasa opined that these problems since the nineties are the major causes of worry to educationist regarding the unit and standard of the certificate awarded to the training graduates. A reasonable percentage of those who head vocational and technology education institutions in Nigeria are square pegs in round holds. They most often see funds for the procurement of materials and equipment for learning in the institutions as wastes; and hence mismanage the fund.
4. Teachers retention and turnovers. Most of students in Nigerian university in the faculty of education are not motivate to become professional teachers on graduation. Many of them need a degree that will enhance their chances of securing employment in other sectors rather than teaching. It is no longer a story that holders of professional qualifications in education work in the banking industry, department of customs and exercise, hotels, immigrations, police, aviation industry and to mention but a few. Teaching in this nation is so unpopular that holders of NCE of ten hide it away, if they could secure a clerical job with their senior secondary school certificate. Infact, succinctly teaching profession is highly endangered as it lack both societal and economic values.
5. Poor public image accorded to vocational and technology education. Vocational and technology education students and graduates are not accorded proper recognition either at technical colleges level or polytechnics level. For instance only a few universities in the country absorb graduates of polytechnics at HND level direct for Masters Degree programme and Ph.D simultaneously. Lasa (1999) stated that nobody wants to be a teacher because of the image associated with teachers in the Nigerian society. Youths in the country perceive teaching as a profession which offers the least tolerable aspect for a career, therefore last resort for candidate yearning for further education is teaching. Professionalism is lacking in teaching as such no matter one's qualification, he can be employed as a teacher.
6. No incentive to teachers. Vocational and technology educations over the years have not being adequately taken care of. Their salaries are nothing to write home about. Government does not deem it fit to grant them such allowances like of hazard and workshop. Other incentives such as insurance scheme, vehicle (car) and housing loans are denied to the vocational and technology educator's. Absence of these lead to low staff moral, which hitherto brings about ineffectiveness and under-achievement; above all there will be no job satisfaction. In a situation like this, vocational and technology education will not contribute adequately to the realization of the expected Millennium Development Goals.

7. Inadequate infrastructures. Infrastructural facilities are so paramount in the vocational and technology education programme. These include buildings and workshops. It is unfortunate to note that a large of the vocational and technology education institution at every level lack the needed infrastructures. This is attributable to fact that the required tools, heavy machines etc are not available in the country. In most cases, the ones imported and made available to the institutions are of substandard quality and even obsolete. For instance, the machines imported from Bulgaria for the teaching of the pre-vocational subject (Introductory Technology). The lack of adequate and proper training materials constitute serious set back to the teaching of vocational and technology courses in the country.

### **Conclusion**

It is evident that the path to follow as to promote the education for self reliance demands heavy dependence as vocational and technology education programme.

There is no need over flogging the relevance of vocational and technology education in the society. It is among others the key to national development and modernization. For the Millennium Development Goals (MDGs) to be achieved vocational and technology education should be given its right of place. By so doing, Nigeria government must among others evolve a pragmatic approach in the training of their technology and vocational personnel through curriculum review, adequate funding and provision of relevant materials.

- (a) To ensure vocational and technology education takes its proper place in the attainment of the Millennium Development Goals there is a great need for teachers motivation. This should be by providing them with free medical services to their immediate family members, car and housing loans. Other fringe benefits like hazard and workshop allowances should not be denied them.
- (b) Necessary equipment and materials needed should be provided by the government and other relevant agencies. Available workshops and laboratories should be maintained and updated. Companies like the Project Development Authority (PRODA) Enugu, Anambra Motor Company (ANAMCO) and other reputable companies of such magnitude is the country should be encouraged financially and equipped with necessary raw materials to manufacture some of the needed tools and materials for vocational and technology education programme.

### **Recommendations**

In order to ensure that vocational and technology education takes its proper place in the nation's attainment of the Millennium Development Goals the following measures need to be adequately taken.

1. Government should provide sufficient fund to the Industrial Training Fund (ITF) as to ensure proper supervision of the students on industrial training. Business tertiary institutions in the country should partner with the industries to enhance student's placement for SIWES in the industries.
2. Government should without further delay re-introduce the Federal Technical Teacher Training Programme (FTTTP) which has been disbanded for over decade now.
3. The already bartered image of the vocational and technology education programme should be of utmost concern to the government. In this regard, government and educational administrators should engage in an intensive public enlightenment programme geared toward educating the citizen on the objectives and relevance of vocational and technology education on the technological development of the nation. This will enable more students enroll into the programme.
4. Government should as matter of urgency revisit its funding policy of vocational and technology education programme. Having in mind that the programme is capital intensive, enough funds should be voted to vocational and technology education as to acquire and picture the needed facilities and materials needed for effective training of students. Besides, government should ensure that people who are of vocational and technology education background are assigned to head the institutions. There should be stringent penalties for any

one who misappropriates funds meant for vocational and technology education programme.

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