

# Empowering Vocational and Technical Education Teachers and Students Through Curriculum Implementation. Reforms for Attainment of Millenium Development Goals

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## Abstract

*This paper was designed to look at the state of implementation of the curriculum in Nigeria educational system. The paper x-rayed the national policy on education and the same time looked at the present implementation programme on ground in different vocational and technical education institution in Nigeria. The paper was addressed under the following sub-headings :(1) History of vocational and technical education before the advent of British government in Nigeria.(2) Empowering vocational and technical education teachers(3) Empowering vocational and technical education students (4) Vocational and technical education curriculum and implementation instruction by teachers (5) Problems of teachers for vocational and technical education(6) Vocational and technical education curriculum reforms: the policy thrust for the attainment of millennium development goals (7) Vocational and education as the vital transformation tool and a formidable instrument for teachers and students empowerment (8) Tertiary education strategies for developing human resources for attainment of millennium development goals. Based on these points the following recommendations and conclusions were made for the attainment of the millennium development goals in Nigeria. Adequate attention should be given to the National Policy on education framework by teachers for empowering vocational and technical education teachers and students. The government of Nigeria should also give scholarship to students interested in vocational and technical education in institutions selected by the government for effective training of teachers to empower them for the attainment of millennium development goals. The government should recruit teachers and also give in service training to the teaching force to enable them improve on their knowledge and skills. Government should appoint vocational and technical supervisors and monitors from the federal, state and local government to look at the present implementation programme of the schools at different levels and so on.*

**Keywords:** Vocational and Technical Education, Curriculum, Teachers

## Introduction

Empowering vocational and technical education teachers and students through educational curriculum reforms is of great importance in Nigeria because vocational and technical education training of teachers had no philosophy that would provide unity and direction of their practice. The system of education was not geared to the needs, condition, and craft of the locality and aspiration of Nigerian. The success of any educational system in meeting its set target of philosophy, goals and objectives depends to large extent on satisfying the psychological human needs of the individual.

The constitution of Nigeria gives all citizens the right to education. But the delivery of education in Nigeria has suffered from year of neglect, compounded by inadequate attention to policy framework within the sector. Findings from an ongoing educational sector analysis confirm

the poor state of education in Nigeria. The national literacy rate is currently 57 percent. Some 49 percent of the teaching force is unqualified. There are acute shortage of infrastructure and facilities at all levels of education in Nigeria. Access to basic education is inhibited by gender issues and socio-cultural belief and practices, among other factors. Disparities persist in educational standards and learning achievements. The system emphasizes theoretical knowledge at the expense of technical, vocational and entrepreneurial education. School curricula need urgent review to make the relevant and practice oriented. The National Economic Empowerment and Development Strategy (NEEDS, 2005) recognizes education as the vital transformational tool and a formidable instrument for socioeconomic empowerment in Nigeria. The education sector has responsibility for producing and supplying the personnel required to propel and sustain the NEEDS initiatives and the millennium developmental goals in Nigeria. The goals of wealth creation, employment generation, poverty reduction, and value reorientation can be effectively pursued, attained, and sustained only through an efficient, relevant and functional education system. Education is critical to meeting the millennium goals set by NEEDS. It is also a sector that the initiative seeks to reform for the attainment of the millennium development goals.

### **History of Vocational and Technical Education before the Advent of British Government in Nigeria.**

Even before the advent of the British in Nigeria, many communities and cultures had developed their own system of informal, formal and vocational education systems. Vocational education was done through the system of apprenticeship, whereby young boys and men were attached to master craftsmen where they learnt various trades and skills such as carpentry, Masonry, Blacksmith, Foundry, Carving, Textile Design and Dying and so on. Such apprentice could spend from three to seven years depending on the trades they were specializing in, the master's skills, competence and exposure, and the wards individual ability and performance. At the end of such training, the "graduate" apprentice was assisted by the family to acquire necessary tools, and local equipment to start his own trade. He would recruit other apprentices to work within his new set-up (Odugbesan,1995).

Independence in Nigeria attracted efforts aimed at achieving rapid national development, innovations, reforms in educational objectives because education in the country was marked with the dominant of literary education than vocational and technical education. The educational system remained largely literary in nature with vocational and technical education aspects of the entire components not made popular. Guga (1999) stated that despite the various attempts at the regional levels to initiate some new ideas and reforms by the Nigerian political leaders, the structure and aims remained largely literary and static.

After the national independence of Nigeria in 1960, the initial efforts aimed at achieving rapid national development were concentrated on the expansion of formal educational institutions at all levels. A large number of the first and second generation universities and polytechnics were established by decrees in quick succession to fulfill this national objective. Most of the programmes were however concentrated in arts and the humanities.

There was a radical reform in education aims, which was orchestrated in 1969 as a result of the national curriculum conference, earlier scheduled for 1966 was held. The report of the conference later grew into what is known as the National Policy on Education 1977, revised 1981, 1998 as the third edition and now 2004 as the fourth edition. The national policy on education and its various amendments addressed the problems of Nigeria from the technical education and the different needs of Nigerians at different levels. The national policy on science and technology (1986)

emphasized the introduction of gainful practical activities in the classroom at all levels. The policy encouraged the use of practical work in making handicraft, gardening farming among others as strategies for implementation of vocational and technical education curriculum in Nigeria.

At present, technical and vocational education outside the universities is offered at:

- (a) Local Apprentices with Master Crafts
- (b) Prevocational School
- (c) Vocational Schools
- \*Craftsmen-National Technical Certificate (NTC)
- (d) Technical Colleges
- \*Master Advanced National
- \*Craftsmen Technical Cert. (ANTC)
- \*National Business and Technical Education Board Examination (NABTEB).
- (e) Polytechnics and Monotechnics
- \*Technicians – National Diploma (ND)
- \*Higher Technicians/Technologists (HND)
- (f) College of Education (Technical)
- \*Technical Teachers (NCE -Tech.)

In addition to the formal institutions enumerated above, the Federal Government has of late created various programmes/agencies aimed at promoting self-employment and self-reliance through technical education. These include the National Directorate of Employment (NDE), small scale industries loans scheme, the people's Bank, with its drop outs and drug addicts' rehabilitation skill acquisition programme, and the National Open Apprentice Scheme.

### **Empowering Vocational and Technical Education Teachers**

Empowering vocational and technical education teachers should be treated with all seriousness in order to achieve success and fulfill the national objectives. The purpose of teacher education and empowerment in this regard is to bridge the gap of educating students at different levels. Teacher education as stipulated in the National Policy on education emphasized that teachers should receive quality training to cope with the changes and innovation in education system. There is need to emphasize on teacher training to enable them acquire knowledge and skills during the training in Nigeria because no education system can rise above the quality of its teachers.

The National Policy on Education (2004) stipulated that since no education system may rise above the quality of its teachers, teacher education shall continue to be given major emphasis in all education planning and development. The policy also stipulate minimum qualification for entry into the teaching profession shall be the Nigeria certificate in Education (NCE).

All teachers in education programmes shall be structured to equip teachers for the effective performance of their duties.

The purpose of teacher education should be to:

- (1) Encourage further the spirit of enquiry and creativity in teachers.
- (2) Produce highly motivated, conscientious and efficient classroom teachers for all levels of our education system.
- (3) Help teachers fit into social life of the community and society at large and to enhance their commitment to national objectives.

- (4) Provide teachers with the intellectual and professional background adequate for their further assignment and to make them adaptable to any changing situation not only in the life of their country, but in the wider world.
- (5) Enhance teachers' commitment to the teaching profession.

### **Empowering Vocational and Technical Education Students**

The National Policy on Education highlighted vocational and technical education for developing national consciousness, acquisition of skills, intelligent understanding of the complexity and inculcating the right type of values in the individual students.

The aims of vocational and technical education as stipulated in the National Policy on Education (FRN, 2004) stated that technical education should be:

- (i) To provide trained manpower in applied science, technology and commerce particularly at sub-professional grades.
- (ii) To provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.
- (iii) To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.
- (iv) To give an introduction to professional studies in engineering and other technologies.
- (v) 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, and
- (vi) To enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

Vocational and technical education teachers and students should strictly adhere to aims and objective stated in the National Policy on education, the innovations and reforms in vocational and technical education should be addressed properly for the attainment of the millennium development goals.

### **Vocational and Technical Education Curriculum and Implementation Instruction by Teachers**

Vocational and Technical education curriculum constitutes a broad range of students experiences in technical college setting, while instruction focuses on the delivery of vocational and technical experiences in the college. More specifically, instruction may be perceived as the planned instruction between the technical teachers and students during implementation that results in desirable learning. Some educators feel that all curricula include instruction, while others contend that sound instruction include a sound curriculum (Mbairorge, 1992).

The vocational and technical education, most instruction is work-oriented. For this to be achieved, learners must be exposed to active teaching strategies or procedures. Active participation of learners in instruction in any vocational trade must be direct. Direct participation exists where the learner is physically involved in the academic and practical activities involved in that trade. The individual must be particularly affected and will exhibit positive perceptions and experience that indicate positive signals to the attainment of the desired goals (Nwachukwu, 2001).

Direct teaching strategies may be in the form of group or individual activities. Group activities are those that are experienced by two or more students participating in the same learning situation, each taking a part and contributing to the whole activity. Such participation comes in the form of field trips, discussions, committee work and role-playing. On the other hand, individual activities are

those in which each student interacts with some form of live communication in the classroom or work, alone on a project.

### **Problems of Vocational and Technical Education in Nigeria.**

One of the greatest handicaps in the improvement and expansion of vocational and technical education is the acute shortage of qualified teachers and administrators. There is a noticeable lack of teacher preparation and in-service training programmes and also difficulty in recruiting well-educated individuals with competence in a relevant occupation. Other prevailing issues that are hindrance in implementation of vocational and technical education are inadequate policy framework, lack of educational standard lack of active teaching strategies, lack of teacher participation in decision making, and learner interest in vocational and technical education.

The kind of teacher preparation programmes needed for many vocational and technical programmes has never been resolved. Competency in the skills being taught is an obvious necessity, but the present emphasis on this alone is inadequate in the light of changing occupational concepts involving the application of science, computer related knowledge and general education (Nwachukwu, 2001).

For too long the educational community has misunderstood the nature of vocational and technical education and has refused to understand that there is much more to it than the acquisition of certain skills through the duplication of work activities. Ultimately, vocational and technical education will be as good as those who teach it. The preparation and continued updating of teachers for the task of functional teachers become the responsibility of the colleges and universities with experience in teacher education. The schools and departments in the relevant disciplines such teacher preparation programmes may involve some new relationships between the institution of higher education, business and industry during implementation activities for the attainment of millennium development goals.

The National Policy on Education and the implementation strategies were properly spelt out to achieve the said goals of preparing Nigerians at different levels of education for the attainment of millennium development goals in Nigeria but the Nigerian system of implementation is questionable at the different levels. At the moment, it appears that there are no clear indications of proper implementation of technical education programme at the different levels of education. Hence, the need arises to look critically at the present implementation problems on ground at the different levels of our educational system in Nigeria and to map out strategies to tackle the implementation problems in order to remove such hindrance that may likely block empowering vocational and technical education teachers and students through the curriculum reforms and implementation for attainment of millennium development goals.

Prossers (1949) stated in the theories of vocational and technical education that the school workshops laboratories and total environment where vocational and technical education is given must be adequately equipped to reflect the actual working environment. That is the technical school workshop, laboratories and the working environment should be well equipped. It is simply put that the school workshops should look like the industrial workshop where the students will work after training. It is only through this way that the students can acquire the skills and knowledge necessary to enable them function effectively in the world of work in the attainment of millenium development goals.

## **Vocational and Technical Education Curriculum Reforms: the Policy Thrust for the Attainment of millennium Development Goals**

The overall policy thrust of NEEDS in education is to:

- Provide unhindered access to compulsory universal basic education to all citizens as a bridge to the future socioeconomic transformation of Nigeria society.
- Establish and maintain enhanced quality and standards through relevant, competency based curricula and effective quality control at all levels.
- Enhance the efficiency, resourcefulness, and competence of teachers and other educational personnel through training, capacity building and motivation.
- Strengthen Nigeria's technological and scientific base by revamping technical, vocational, and entrepreneurial education and making optional use of information and communication technologies to meet the economy's manpower needs.

### **Vocational and Education as the Vital Transformation Tool and a Formidable Instrument for Teachers and Student Empowerment.**

There are six educational goals set by NEEDS. The six goals for education as a vital transformation tool and a formidable instrument for socioeconomic empowerment of Nigerian's were highlighted and the third and fourth educational goals and key targets and strategies were pointed out as it affects vocational and technical education as follows;

The first is to ensure and sustain unfettered access to education for total development of the individual.

The second goal is to improve the quality of education at all levels.

The third goal is to use education as a tool for improving the quality of life through skill acquisition and job creation for poverty reduction.

The fourth goal is to ensure periodic review and effective implementation of the curriculum at secondary level to meet the requirements of higher education and the world of work.

The fifth goal is to mobilize and develop partnerships with the private sector and local communities to support and fund education.

The sixth goal is to promote information and communication technology capabilities at all levels.

The third goal is to use education as a tool for improving the quality of life through skill acquisition and job creation for poverty reduction. Targets and strategies for achieving the goal include the following:

- (a) Ensure that Nigerians who have completed basic education acquire the literacy, numeracy, and basic life skills needed to live meaningful lives and contribute to national development.
- (b) Ensure that 50 percent of secondary school students have access to good quality vocational and entrepreneurial education.
- (c) Ensure that 50 percent of tertiary education graduates acquire sufficient technical skills, entrepreneurial skills and knowledge to be self-employed and wealth creators.

The fourth goal is to ensure periodic review and effective implementation of the curriculum at the secondary level to meet the requirement of higher education and the world of work. Targets and strategies for achieving the goal include the following:

- (a) Complete the curricular revision exercise to reflect the dynamism of society and emerging global issues.

- (b) Rehabilitate vocational basic technology and resource centres nationwide.
- (c) Establish new basic technology and resource centres nationwide.
- (d) Produce education materials that reflect the revised curricula
- (e) Establish libraries and information resource centers for teachers and students to complement formal and life-long education and create awareness of their importance.
- (f) Involve local crafts people in the delivery of vocational education in schools.

### **Tertiary Education Strategies for Developing Human Resources For Attainment Of Millennium Development Goals.**

Under NEEDS the government recognizes the critical importance of tertiary institutions for developing high-quality human resources, especially in an increasingly technology-driven world economy. The government also recognizes the challenges facing these institutions, challenges that include inadequate funding and facilities, curricula that are inadequate to meet the challenges of nation building, inadequate and inappropriate staffing (especially among the lecturers), cultism, and low moral and academic standards among students. Higher institutions in Nigeria currently depend almost exclusively on government subsidies. The bulk of federal government spending on education goes to tertiary institutions; state governments spend at least 20 percent of their budget on education, mostly primary and secondary education. Almost total dependence on the government for funding higher education is neither practical nor sustainable. There is therefore a need for fundamental reforms of the higher education system.

The strategies for reforms for attainment of the millennium development goal include the following:

- (a) Strictly adhere to the provisions of the university autonomy Act.
- (b) Diversify funding by attracting private sector funding and considering more appropriate pricing of facilities and services (including hostel accommodation).
- (c) Update and restructure curricula to meet the demands of the national economy, mainstream science and technology, especially information and communication technology.
- (d) Establish effective monitoring of public and private universities to ensure strict adherence to standards.
- (e) Develop innovative approaches to ensure continuing retooling and capacity building of lecturers so that they operate at the cutting edge of their disciplines.
- (f) Increasingly move towards a decentralized and competitive wage bargaining system, which promotes a performance based reward system..

### **Recommendations**

- (1) Adequate attention should be given to the National Policy on education framework by teachers for empowering vocational and technical education teachers and students through educational curriculum reforms for the attainment of millennium development goals in Nigeria.
- (2) There should be a good vocational and technical education preparation programme to enable the vocational and technical education curriculum implementation to be well implemented by well qualified teachers. The government of Nigeria should also give scholarship to students interested in vocational and technical education in

institutions selected by the government for effective training of teachers to empower them for the attainment of millennium development goals.

- (3) The government should recruit teachers and also give in service training to the teaching force to enable them improve in knowledge and skills and also up date the teacher with current ideas, skills and knowledge in vocational and technical education to empower them for the attainment of millennium development goals.
- (4) Government should appoint vocational and technical, supervisors and monitors from the federal, state and local government to look at the present implementation programmes of the schools at different levels to ascertain the levels of compliance with the philosophy, educational standards in terms of equipment and facilities, policy framework and teaching strategies necessary for the attainment of millennium development goals in Nigeria educational system.

## Conclusion

The paper was designed for re-appraising the vocational and technical education curriculum for vocational and technical schools in Nigeria for the attainment of millennium development goals. The researcher looked at vocational and technical educations aims and objectives of the National Policy on Education (2004) and relating it to different technical school programmes and identified the different problems of disparity in curriculum, standard, inadequate attention, and misappropriation of philosophy and lack of teaching strategies in the implementation of the curriculum in vocational and technical institutions in Nigeria. The author went further to study the National economic empowerment and development strategy (NEEDS) and key target and strategies for achieving and attainment of millennium development goals in Nigeria. Prosser's (1949) stated the school workshop should be well equipped to attain the standard of the industrial workshop and its environment where the trainers will work after training. In order to achieve the best results in the attainment of the millennium development goals. Ministry of education (vocational and technical unit) should orchestrate, monitor and rectify the following lapses in the implementation programmes: philosophy of administrators, adequate policy framework, educational standard, active teaching strategies, teacher preparation, qualified teaching force, recruitment of qualified teacher, learner participation and teacher participation in decision making during the implementation programme in vocational and technical education institution in Nigeria.

The nation must therefore look ahead to implementing and evolving the well stated national policy on education and NEEDS policy thrust and its different strategies to enable technical schools play the roles of empowering vocational and technical education teachers and students through curriculum reforms and implementation for attainment of millennium development goal in Nigeria.

## References

- Federal Republic of Nigeria (1986). National Policy on Science and Technology. Federal Ministry of Science and Technology. Abuja: Mamser.*
- Federal Republic of Nigeria (2004). National Policy on Education, (4<sup>th</sup> ed). Lagos: Nigerian Educational Research and Development Council (NERDC).*
- Guga, A (1999). Basic changes in the Aims of Education in Nigeria since 1842: A Historical survey. Nigerian Journal of Curriculum and instruction. 8 (1) 68-75.*
- Mbaiorga, Y. T. (1992). "An Analysis of some problems and Administrative Behaviour in Vocational Education" Quarterly Journal of the federal Ministry of Education 5 (2) 31-34.*



*National Economic Empowerment and Development Strategy (NEEDS, 2005). National Planning Commission; Abuja: Central Bank of Nigeria.*

*Nwachukwu, C. E. (2001). Designing Appropriate Methodology in Vocational and Technical Education for Nigeria. Nsukka: Fulladu publishing company.*

*Odugbesan, F. A. (1995). Perspective of An educational institution co-operative between educational institutions and enterprises in technical and vocational education. Berlin: UNESCO Publication.*

*Profsser's C. A. (1949). Vocational education in Democracy, Chicago Illinois: American Technical Society.*