

# VISION AND MISSION OF VOCATIONAL AND TECHNICAL EDUCATION IN THE 21<sup>ST</sup> CENTURY

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## Abstract

Vocational and Technical Education is considered in this paper to depict that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. With this definition in mind, this paper conceives the vision and mission of vocational and technical education to imply what the future and purpose of Vocational and Technical Education would be in the 21<sup>st</sup> Century. This paper is of the opinion that rapid advances in the knowledge frontiers and technological developments will result in new processes, which require skills unimagined a decade ago. As a result of this, the vision and mission of Vocational and Technical Education will be very challenging because of automation, change in labour market, medical and biological advances, media and challenges in ethical and religious values. The mission of Vocational and Technical Education is seen in this paper as its objectives. The paper examines the objectives and considers them as an effort to bridge the gap between Vocational and Technical Education programmes and a preparation of the students for entrance into the world of work. This paper opines that the mission of Vocational and Technical Education in the 21<sup>st</sup> Century is to cope with educational challenges of the new era through research and exploration of new ways of attaining excellence. The paper concludes by suggesting strategies to be adopted in order to make the vision and mission of Vocational and Technical Education realizable and attainable.

## Introduction

The word vision has been described by Hornby (1994) as the "Power of seeing or imagining, looking ahead, grasping the truth that underlies facts". With the above definition, the vision of Vocational and Technical Education implies looking ahead or dreaming of what the future of Vocational and Technical Education in Nigeria will be in the 21<sup>st</sup> Century.

The word mission has been described also by Hornby (1974) as " Special task, assigned to an individual or a unit". That is a specific task with which a person or group is charged. From this definition, it implies that the vision and mission of Vocational and Technical Education denotes the purpose which Vocational and Technical Education is supposed to achieve in the 21<sup>st</sup> Century. Vocational and Technical Education is defined by NPE (1981:28) as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. Looking at the above explanations of vision and mission, the task this paper intends to undertake is to present what the future and purpose of Vocational and Technical Education would be in the 21<sup>st</sup> Century Nigeria.

## Vision of Vocational and Technical Education in the 21<sup>st</sup> Century

Rapid advances in knowledge frontiers and technological developments have resulted in new processes which require skills unimagined a decade ago. These changes have vital implication for the individual as worker, citizen, and person. Increasingly, the premium is not on skills per se, but on the capacity to acquire skills, to modify them, and perhaps to begin again. Adaptability and flexibility are the qualities demanded for today's worker. According to Ziegler (1971);

Half of what a person learns is no longer valid when he/she reaches middle age. One third of the items on the supermarket shelves did not exist ten years ago. Half of the labour force earns its living in industries that did not exist when the country began. Three - fourths of all the people employed by industry twelve years from now will be producing goods that have not yet been conceived.

With the above situations in mind, Mead (1969:28) states that the educational system must add some new functions, education for rapid and self conscious adaptation to a changing world. No one will live all his life in the world into which he/she was born and no one will die in the world in which he/ she worked in his/her maturity. It is in the same view that Drucker (1971:7) opines that since we live in an age of innovations, a practical education must prepare a man for work that does not yet exist and cannot be clearly defined.

These writers and many others are pointing to the urgent need for students to adapt to and feel comfortable with change, to plan for it, to master it, and to view it as a way of life. The vision of Vocational and Technical Education in the 21<sup>st</sup> Century therefore, is that there will be an increasing demand for individuals possessing competencies in problem - solving and human relations and for individuals who are capable of relearning jobs and / or adapting to changing jobs. According to Brittain (1980:353),

The ability to adapt will have a direct bearing on useable career performance and on how to live, cope, and grow in a high - change society. The emphasis here is that change, adaptability can and probably will distinguish between future success and failure. This gives impetus for helping students to expect and adapt to change now.

In the words of Drucker (1971:7-11) the lag between education and the needs of the society it serves is well known. Almost as soon as a new product or subject is implemented in the school, society demands different skills to respond to current socio-economic conditions. As a result of this, students are three knowledge generations behind what they need to know for the world outside the school environment. But even new, up - to -date curricula is not the solution to the dilemma between rapidly changing technology on the one hand and obsolete knowledge and skills on the other. Acquisition of knowledge alone, regardless of how vital, will be insufficient to meet all future needs because no school (now or in the future) can teach all the skills needed in a lifetime.

The best solution to this dilemma would seem to be to incorporate opportunities to develop skills adaptability into teaching methods and planning creative activities where the teacher serves as a facilitator of learning rather than a dispenser of information.

It is the vision of this paper that in the 21<sup>st</sup> Century, demand for Vocational and Technical Education will be on the increase because Vocational and Technical Education has been identified as a factor to induce people's ability to change and manage change. It will serve as a catalyst in developing people's ability to face the challenges of making choice in a changing situation while also increasing the choices available. In short, in the 21<sup>st</sup> Century, Vocational and Technical Education curriculum will help in mobilizing and releasing the creative energies and potentials of ail people for positive change.

However, the vision or place of Vocational and Technical Education in the 21<sup>st</sup> Century will be very challenging as a result of the following:

#### **(a) Automation**

The 21<sup>st</sup> Century will witness the capacity of machines to transport, communicate, store and retrieve vast quantities of data, to calculate and report instantaneously to other machines, and to perform much of the work that people used to do, this stresses the necessity for new kind of learning in the schools.

The professional persons as well as the semi - skilled must continue to learn in order to keep up with their career. The homemaker (house wives) will have more and more of their tasks delegated to machines. The scope of computer services now dimly realized by the general public will release human energy and creativity for new occupations.

#### **(b) Changes in the Labour Market**

In the 21<sup>st</sup> Century, as the society continues to shift from agricultural to industrial, from industrial to post - industrial, its labour market will correspondingly shift from product to service orientation. Raising crops and performing routine factory jobs will be done by relatively few persons *with the aid of machines.*

Demands for skilled technicians, maintenance and service personnel will be on the increase. Increased number of highly educated persons will be needed in research, development and leadership positions that require problem -solving and decision - making skills. More persons will be needed in professions related to teaching, engineering, health and behavioural sciences.

### **(c) Medical and Biological Advances**

In the 21<sup>st</sup> Century, as prevention and cures are discovered for more and more dreaded diseases, as the use of artificial organs and the transplant of organs becomes more and more successful, as medicines become more reliable for control of both physical and psychological ills, and as man takes more seriously the principles of health and physical fitness, he can expect to live longer and longer. Increase in longevity, therefore, calls for educational processes that will lead individuals to live productive and satisfying lives, this will make it necessary for great interest to be shown on Vocational and Technical Education in the 21<sup>st</sup> Century.

### **(d) Media**

In the 21<sup>st</sup> Century, the capacity for communicating through electronic media will offer unlimited potentials for the education of man. Information on current issues of society will be available to all; News of wars, poverty, election rigging, drug abuse, assassinations, campus riot, high rate of adult delinquency and violence in schools will be on the increase.

Computer networking, with its potential to democratize the market place of scholarship, will crack the monopolies of textbooks and journals in the exchange of idea throughout the academia (Ploghoff, 1995:235). Jensen (1995:254) states that "It is now possible to send messages and files over poor quality telephone lines at minimal cost using automated computer controlled connections with file compression and error checking".

The world will be moving on a superhighway of information and all barriers of knowledge will be broken; this is a web that Nigerian educational system should not fail to be logged onto. Griffith and Smith (1994:1) assert:

Information superhighway has become the metaphor for describing the evolving telecommunication infrastructure that will link homes, businesses, schools, hospitals, and libraries to one another and to a vast array of electronic information resources.

### **(e) Changes in Ethical and Religious Values**

In the 21<sup>st</sup> Century, questioning of traditional values by many segments of the society will be on the increase, there will be turmoil within religious institutions, and new interpretations of theology and causing of confusion in the minds of many persons.

New conception of freedom, equality human right and ecumenical movements will both be propelled and inhibited by religious groups when applied to such issues as civil right and freedom of worship. Searching questions will be asked by liberal theologians as the nature of truth, death, life, here and hereafter. If society re-examines its values, new responsibilities will be added to Vocational and Technical Education.

### **The Mission of Vocational and Technical Education**

The word "mission" as defined by Hornby (1994) connotes "Special task assigned to an individual or unit" or "a specific task with which a person or group is charged" The National policy on Education (1981: 28) presents the mission of Vocational and Technical Education as follows:

To provide trained manpower in applied science, technology and commerce, particularly at sub-professional grades.

To provide the technical knowledge and vocational skill necessary for agricultural, industrial, commercial and economic development.

To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.

To give an introduction to professional studies in engineering and other technologies.

- 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.
- To enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

With the above mission as stated in the NPE (1981:28) the Vocational and Technical Education teacher has a task specific to perform in order to achieve the above stated mission. The Vocational and Technical Education Teachers now face a challenge that will have more impact on their beliefs, concepts, philosophies, curriculum designs and instructional strategies. The challenges they face are unique and are rooted in the social and economic welfare of the people. In the contemporary social scene, with large city problems, unemployment, school dropouts and a variety of disadvantaged group, Vocational and Technical Education has a mission to reach the total population and serve a wider market than ever before.

The mission of Vocational and Technical Education programme must be seen as an effort to bridge the gap between vocational and technical education programmes' preparation and the student entrance into the world of work. Preparing students for the transfer from school to work requires a greater variety of educational preparation for work and demands new levels of integration of general and Vocational and Technical knowledge and skills. Similarly, expansion of programmes for employed workers, including retraining must take into consideration the personal needs of individuals as they attempt to adjust to the occupational changes occasioned by technology.

The concept of work must be generated early in the educational career of the youths so that they will have first hand information against which to match their talents and desires. Vocational and Technical Education teachers face the challenges of mobilizing and releasing the reactive energies and potentials of the youths for positive change and set agenda by focusing public attention on change which is what development is all about.

The rapid economic, social and technical development will require greater participation of women in economic activities. Cultural and family tradition which restrict some women to certain occupation will be broken and parents will be well informed about occupational opportunities for girls. Active participation of women in work force will be seen as essential to the economic well-being of the nation. Vocational and Technical Education has a mission to respond to change, not by responding to the new circumstances but rather by integrating old and new technology harmoniously. It must engender a sense of future, so that both learners and institutions are prepared for change and constant renewals, and it must facilitate the development of flexibility and adaptability.

The emphasis for the mission of Vocational and Technical Education must be in developing new multiple skills and understanding on the relationship between various activities and the way things are combined and recombined rather than on the present mode of skill acquisition which emphasizes skills specific to only one activity. The Vocational and Technical Education Teacher has a mission to teach conceptual innovations and develop the ability to identify and become perceptually flexible as a result of the emergence of new technologies.

The teacher of Vocational and Technical Education in the 21<sup>st</sup> Century has a mission to be abreast with all the electronic gadgets necessary for efficient classroom interaction because the children of the 21<sup>st</sup> Century would come from homes where parents have cable satellites and computer networking. If the teacher who is supposed to be the master of all knowledge is buried in his cocoon of old textbooks, old research topics while the world is on the superhighway of information, then he will not be qualified to teach the children of the 21<sup>st</sup> Century.

According to Okebukola (1995) there is the acute need to avail teachers the opportunity of learning to use multimedia instructional delivery. As the NPE (1981: 57) states "No education system can rise above the quality of its teachers". In the same vein, Lassa (1995) does not hesitate to state that 'quality itself depends on part, on the quality of the teacher educators; and the up-to-date quality of the teacher educators depend on their involvement in relevant research endeavours. This will enrich their repertoire of knowledge, skills and attitudes. The richer they are in their innovative ideas, the more competent they would certainly be in preparing future teachers of qualitative education.

Okebukola (1995) has identified the parameters on which the mission of Vocational and Technical Education would be hinged. These are firstly, population growth. Okebukola (1995) draws attention to over - sized classes since economic and political considerations may prevent the appointment of teachers according to the approved teacher- pupil ratio. The second involves dealing with under - school - aged pupils requiring flexibility in the application of educational psychology and learning theories, and the third aspect concerns a high rate of delinquency and violence in schools, requiring

skills in behaviour modification therapy by teachers.

It should however be noted that Vocational and Technical Education Institutions still will have to draw their intake from elements of this new generation with their thwarted and distorted values. The teaching profession already has neither been popular nor attractive (Adesina, 3988) Hence, it amounts to a formidable mission for teacher educators to be confronted with "initiating unwilling disciples into the teaching profession". Lassa (1998) opines that educational challenges (mission) of the 21<sup>st</sup> Century Nigeria will certainly be derived from the prevailing circumstances and contemporary Nigerian Socio - political outlook.

Finally, the mission of Vocational and Technical Education in the in the 21<sup>st</sup> Century Nigeria must be to cope with the educational challenges of a new era, and these challenges are multifarious, and the quest for the mission is a continuous one because we must be seen to be growing both quantitatively and qualitatively, and we must respond to the identified deficiencies in our system and then seek innovations through research and exploration of new way of attaining excellence.

### **Conclusion**

Since the position of this paper is that the world is at the threshold of technological revolution, which will result in new processes and new ways of doing things, the Nigerian child should be exposed to technological education, which will give him not only capacity to acquire skills, but also to modify and adapt to the changing world. The reason for this is that the life of Nigerian youths will be impacted by what the new technologies will offer them both as individual workers, citizens, producers and consumers of goods and services.

### **Recommendations**

Vocational and Technical Education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work.

Effective Vocational and Technical Education training can only be given where the training jobs are carried out in the same way, with the same operations, tools and the same machines in the occupation itself.

Vocational and Technical Education will be effective in proportion as it trains the individuals directly and specifically in the thinking habits and the manipulation habits required in the occupation itself.

Effective Vocational and Technical Education will be in proportion, as the instructor has had successful experience in the application of skills and knowledge to the operation and processes he undertakes to teach.

The only reliable source of content for specific training in an occupation is in the experience of masters of the occupation.

The Vocational and Technical Education teachers should facilitate the move from learning - by - telling to learning - by - doing.

Working on real life problems or issues that are relevant to students increases interest and motivation and promotes knowledge transfer.

Before information and communication technology can help improve learning outcomes, institutions must be reorganized and teachers must change the way they approach learning. Competency - based individualized and mediated instruction should be used more widely in training programmers in Vocational and Technical Education, as it has many advantages over tradition training.

### **References**

Adesina, S. (1988). *The Development Modern Education and Nigeria*. Ibadan: Heineman Educational Books Ltd.

Brittain, Kathy (1980). Face the Future with Adaptability to Change. *Journal of Business Education* 55 (8).

- Drucker, Peter (1971). What we Already Know About American Education Tomorrow. In William, T. Beadles **Lecture, American** College of Life Underwriters, Sept.
- Federal Republic of Nigeria (198 J). National Policy on Education. Lagos: Government Press.
- Griffith, J.B. and Smith, M.S. (1994). The information Superhighway and the National Information Infrastructure Report for Congress; Congressional Research Service. The Library of Congress
- Hornby, A.S. (1994). Oxford Advanced Learner's Dictionary of Current English. Oxford: University press Ltd.
- Jensen, M. (1995). Low Cost Global Electronic Communications System for Africa. FID News Bulletin 45 (7)18.
- Lassa, P.N. (1998). Vision and Mission of Education in Nigeria: The Challenges of the 21" Century: Kaduna: National Commission for Colleges of Education.
- Lassa, P.N. (1995). Accountability in Teacher Education. Lead Paper Presented at the National Conference on Teacher Education as an imperative for National Development: Kaduna: NTI Conference Centre, Sept. 25<sup>11</sup> - 29<sup>11</sup>
- Mead, Margret( 1969). Culture and Commitment. New York: Double-Day.
- Okebukola, P. (1995). Teacher Education and the Challenge of the 21" Century. Lead Paper Presented at the National Conference on Teacher Education as an imperative for National Development, Kaduna: NTI Conference Centre, September 25\* -29<sup>1</sup>
- Phoghoft, M.E. (1995). Electronic Information Exchange in African Universities Development. FID News Bulletin 45 (718). July.