Qualitative Technology Education: A Gate Way for Sustainable National Development

Njoku Christian O.
08065355109
njokuchris34@yahoo.com
Department of Business Education,
Alvan Ikoku University Of Education, Owerri,
Imo State

Abstract

The philosophy of any educational programme generally expresses the general believe, attitudes, feelings, norms and ideals underlining the establishment of the programme. Hence the introduction of 6-3-3-4 system of education to address the problem. The purpose of this paper, therefore, is to highlight the importance of quality, standards and performances in technology education and examine the extent to which technology education has embraced quality, standard and performances which, of course will lead to qualitative technology education and sustainable national development. This implies that such educational process should continuously be updated in line with current realities in technological development; to be able to achieve the six-point attributes which technology education for national development possesses. In the field of Office Technology and Management (OTM) for instance, the training given to OTM students does not seem to reflect the wave of digital technology changes, and these have created disparity between what is imparted to OTM students in terms of abilities, competencies and capabilities, vis-à-vis the need of industries and other technologically advanced work places. This paper therefore stressed the need to inculcate quality Office Technology and Management (OTM) training programme in the graduates for sustainable national development.

Keywords: Qualitative, Standards, Technology Education, Office Technology and Management, Sustainable, National Development

Introduction

Education is defined as a systematic activity which leads to enduring change in the behavior of a learner for the purpose of self-actualization of the learner and wellbeing of others and the society. Education generally is the process of acquiring knowledge, skills, values, beliefs and habits. It is the process of receiving or giving systematic instruction especially at schools or university. Its purpose is to broaden understanding that will enable individual make the best use of their innate abilities and potentials towards their individual and national development (Enemali, 2010). Accordingly, conscious efforts are made to develop formal learning structure or

programme of academic activities for the purpose of general education, training and development of the learners and such documents or programmes tilt towards curriculum development.

Curriculum does not have one generally accepted definition, but is viewed differently by some educators, educationist, students and lay persons. All the definitions are tailored towards things they expect from social cum academic institutions which are called schools. They therefore, think of why school should be established, things the learner is exposed to learn and model of exposure, the efficiency and effectiveness of the exposures, the relevance to educational programmes, to the need and interest of not only the learners, but also the society (Nnenna, et al. 2021). Curriculum therefore, refers to as organized educational experience which are planned sequentially and administered to the learner by the school for the benefit of not only the learner, but also the development of the society at Large (Okoro, et al. 2012).

Curriculum contains knowledge, attitudes, skills, values, beliefs, among others, otherwise called contents that helps in all round development of the learner. It can also be seen as a working tool that gives a sense of direction to what to do and how to do it for the purpose of realizing any educational goals (Uwatt, 2009). Curriculum structure is always seen to be drawn based on the goals and philosophies of the affected nation or society, such as Nigeria (Maduka et al. 2019). This is so because philosophy is a set of definite guiding principles regulating human conduct and human values. Therefore, the philosophy of any educational programme generally expresses the general believe, attitudes, feelings, norms and ideas underlining the establishment of the programme. Its formulation is usually the first essential step in the development of any educational programme. This is so because the programme's philosophy provides the guiding spirit for implementing vocational education programmes.

Accordingly, the National policy on Education (NPE, 2004) outlined the philosophy and goals of education in Nigeria as a government way of realizing that part of the national goals which can be achieved using education as a tool because no policy on education, however, can be formulated without first identifying the overall philosophy and goals of the nation. This is so because education is an essential part of the society process employed to train the human beings to be functional and to adopt the outlined behavioural pattern by the same society (Akinwale, 2015).

The five national goals of Nigeria which have been endorsed as the necessary foundation for the National policy on education are building:A free and democratic society; A just and egalitarian society; A united strong and self-reliant nation; A great and dynamic economy; and A land full of bright opportunities for all citizens.For the philosophy to be in harmony with Nigeria's national goals, education has to be geared towards self-realization and reliance, better human relationship, individual and national efficiency, effective citizenship, national consciousness, national unity as well as towards social, cultural, economics, political, scientific and technological progress. (National Policy on Education, 2004).

To actualize these goals, the National Policy on Education (NPE, 2004) anchored their realization to definite innovations. Innovation is a new techniques, method or approach effectively designed and developed to ensure efficiency and effectiveness in a given setting. One of the innovations adopted to actualize educational goals is the introduction of vocational and technical education under the current National Policy on Education. This paper therefore intends to examine the concepts of vocational education, technical education, vocational technical education and technology education with a view to resolving or addressing conceptual challenges. The paper also addresses the contentious issue of quality, standard and performance in technology education and finally highlights the imperatives of qualitative technology education for sustainable national development, using the field of Office and Technology and Management (OTM) as a case.

Conceptual Perspectives in Technology Education

The term vocational education means vocational or technical training or retraining, which is offered in schools or classes under public supervision and control. It refers to a systematic learning experiences which are designed to fit individuals for gainful employment in recognized occupations as semi-skilled workers or technicians or sub-professionals. This definition excludes programmes designed primarily to fit individuals for employment in occupations which are considered professional, require a bachelor's higher degree or are designed primarily as general education (Osuala, 2004).Vocational education is education designed to prepare skilled personnel at lower levels of qualification for one or a group of occupations, trades or jobs. Vocational education usually provided at upper secondary school level, includes general education, practical training for development of skills required for the chosen occupations, and related theory. The proportions of these components may vary considerably but the emphasis is usually on practical training (Osuala, 2004).

Technical Education is education designed at upper secondary and lower tertiary levels to prepare middle-level personnel (technicians, middle management etc.) and at university level, to prepare engineers and technologists for higher management positions. Technical education includes general education, theoretical, scientific and technical studies and related skill training. The components of technical education may vary considerably depending on the type of personnel to be trained and educational level.

The term, Vocational Technical Education is a comprehensive term referring to the educational process when it involves, in addition to general education, the study of technologies and related sciences and acquisition of practical skills and knowledge relating to occupations in various sectors of economic and social life. The broad educational goals of Vocational Technical Education distinguish it from "Vocational Training" which is directed to developing the particular skills and

related knowledge required by a specific occupation or group of occupation (UNESCO, 2004).

Technical Education on the other hand is an education to earn a living in an occupation in which success is dependent largely upon technical information and understanding of laws of science and principles of technology as applied to modern design, production, distribution and service (Osuala, 2004). From the definition, it could be seen that while vocational education includes technical education not all technical education programmes are vocational.

Based on the above conceptual perspectives regarding the definitions of vocational education, technical education and vocational technical education, one can understand the problems posed by the definitions in terms of classifications based on the level of entry level of work, proportions of theoretical and scientific studies and emphasis on practical training. To avoid such debates in classifications, and to improve the development in this type of education, the current trend in education and planning practices is to use a single term "Technology Education" to embrace all such education programmes. The term "technology education" deals with the application of scientific knowledge in the solution of practical problems of everyday living. Technology education essentially, aims at developing techniques, devices, procedures and the process for doing things. Obviously, theoretical and scientific studies and related skills training are required. These components will vary according to the level of education and the nature of occupation and career being considered. In other words, while science is concerned with "knowing", technology aims at getting things done and efficiently (UNESCO and ILO, 2004). While the term "technology education" is generally adopted, its components in terms of curriculum structure and level of coverage and difficulties will vary ranging from primary school, pre-vocational at Junior Secondary level, vocational and technical at subsequent higher levels. The primary aim is to inculcate the habit of Education, training and development as instrument of economic growth and industrialization (Euemali, 2010).

Educational terms are often linked to particular systems of education which they are based and, on the philosophies, and the societies they serve and are therefore not applicable outside these systems. As a result, different terms may be used to describe the same phenomenon in two countries which use the same language. Referring back to the above definition of vocational education and technical education offered by UNESCO and ILO (2004), a Frenchman would say that "that education is what we call "technology education" while a Russian would say "that is what we call polytechnic education. The Americans refer to it as industrial arts. The approach, organization and emphasis certainly vary from country to country, but the international term would allow for discussion of common elements and better comparison of differences. (Osuala, 2004). But technology education is an innovation to address non functional education in Nigeria.For the purpose of this paper, therefore, technology education is adopted, having addressed the rationale for its adoption.

The National Policy on Education (NPE, 2004) outlined the aims of technology education as follows:

a. To provide trained man power in applied science, technology and commerce.
b. To provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.
c. To provide people who can apply scientific knowledge to the improvement and solutions for the use and convenience of man.
d. To give introduction to professional studies in engineering and other technologies.
e. To give training and impart the necessary skills leading to the production of craftsmen, technicians, technologists and other skilled personnel who will be enterprising and self-reliant and
f. To enable our young men and women to have an intelligent understanding of the increasing complexities of technology.

The foregoing aims of technology education represent to a large extent, the national philosophy and goals that will be achieved using technology education as a tool. The critical question lies on the extent to which these goals have been achieved in terms of production of manpower who possess the skills and abilities for self-employment generation and national development.The issues and problems are, how many trained technical teachers can find alternative jobs rather than wait for nobody? The technical teacher may have a useful employable skill but lacks for now, the usable skills which is the residual for generating self-employment. From observation, it is obvious that the skill content of our current technical teachers' education delivery programmes is insufficient, hence the skills acquired by a technical teacher trainee is paltry. Trainers tend to pay more attention to methodology (pedagogy) than is paid to matter (skill and knowledge), which is why the technical teacher knows more methods than the skills he is supposed to impart (Ulinfun, 1990).

With reference to Decree No 16 of 1985 titled education (National Minimum Standards and Establishment of Institutions) Decree, section a, says, among others: the purpose of technical education, shall be: 9(b) “the provision of technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development and 9(e) the provision of training to impart the necessary skills leading to the production of crafstmen, technicians, technologists and engineers and other skilled personnel who will be enterprising and self-reliant. Unfortunately, little or nothing is being done to implement the provisions of the above decree.To remedy the above perceived gap in the quality of vocational and technical education delivery, there is the need to probably reconcile and resolve the issue of quality, standard and performance in our educational delivery programmes generally and technology education in particular.

Standards in Technical Education

Standards of education arc not achieved through the education process, but formulated and stipulated in form of policies, laws, rules and regulations, which are prescribed for the functioning, and operations of the system or programme. Standards of Education can simply be referred to or defined as prescribed measures for realization of education objectives. Such measures may be stipulated in form of polices, rules, regulations; tools, methods and strategies for tests and measurements in respect of educational inputs, processes and out-put, specifications, limit and tolerance prescribed requirements in respect of the inputs, processes and out-put of an educational system or programme. Prescriptions with regard to the contents of the curriculum of an education system or programme and of course guidelines and requirements for establishing and running of an institution of learning Lidani (1995).

Establishment or formulation of educational standards can be said to be at three different stages of programme or systems development in education.

1. First is the planning Stage, where educational standards are prescribed or designed in terms of:

(i) Specific needs, values and goals.

(ii) Policies, guidelines for funding and physical items:

Types of grants and specifications of physical facilities foracademic activities and programme.

(iii) Enrolment of students and admission policies at each level of the programme relative to number and entry requirement.

(iv) Requirement of teacher; their levels of qualifications, experiences number and mix of each programe

(v) Recruitment of non-teaching staff: appropriate ratios to teaching staff and students, qualifications, experiences, number and mix.

(vi) Contents and methods: depth, breath and length of the programme and strategies for implementation - what, how, when and where etc.

The second state is the implementation stage, where educational standards are defined and prescribed in terms of:

i. Time allocation and utilization

ii. Policies on student's attendance at lecturers, practical and other academic activities

iii. Types and number of tests to be administered at each level of the programme.

iv. Qualifications and other requirements for progression from one level of a programme to the next higher level.

v. The MUST, COULD and SHOULD do or know activities, Policies on continuous assessment and students' performance relative to result of final examination for graduation.

vi. Policies on Examination rules, guidelines and regulations.

vii. Computation of records of student's examination results.

viii. Stipulated guidelines and requirements for promotion and discipline of teachers/lecturers, etc.

The OUTPUT stage of an educational system or programme is the third Stage

at which standard are stipulated or prescribed in the form of descriptive or quantitative indices relative to the end results of an educational system or programme. Standards at this stage are stipulated or prescribe for the primary purpose of scoring and grading of the academic performance of students in order to determine the specific CLASS of the certificate to be awarded to graduating students, and also to determine the status of a student at the end of each level of a programme

Example of such standards is:

i. Standards for the classification of levels of performance in examinations in terms of 1st class, 2nd class, distinction; credit; merit; 3rdclass pass or failure levels, based on percentage scores and cumulative grade point average attained by a student in a particular course or subject or relative to a overall performance for grading certificate, degrees and diploma.

ii. Stipulated standards for determining the status of a student whose academic performance falls below the acceptable standard. For example, a student whose CGTA is below 1.00 at the end of a particular year of studies will be placed on probation for one Academic session another example is a withdrawal status where the CGPA of a student is below 1.00 at the end of a particular period of probation.

iii. Educational Standards or Standard of education in the real sense of their functions therefore, are fixed indices which are designed to be applied at various stages of an educational system or programme in order to ensure that the output of these system or programme have certain degree of uniformity and acceptability both locally, and internationally. Standards also are applied to control quality of output marketability of the end product. Educational standards are fixed and always required to be applied as stipulated. Standards cannot fall or decline but can be reviewed. Standards prescribed for a particular system or programme are the same wherever the system or programme is practiced. For example, standard stimulated for the running of N.C.E. programme in Nigeria apply all Colleges of Education without exception, (Lidani, 1995).

Quality of Technology Education

The meanings, concepts and definitions of the word education discussed above are indicative of the facts that quality of education may also mean- different value judgements with regard to the expectations on the outcome of educational systems and programmes. In his contribution to the question of quality education, Beeby (1966) identified the following three levels at which the quality of education may be is measured.

i. The classroom conception of the quality education, which takes into consideration the qualities of education relative to cognitive, affective and

psychomotor developments of the learner. Teachers and inspectorate departments are mostly concerned with this level.

ii. The second level is the market place conception of quality education where quality of education is measured by its productivities. By extension, the economist who is more concerned with quality in terms of INPUT and OUTPUT of the education systems as a measure of their immediate productivity and efficiency would be regarded as a professional at this level.

iii. The third level is where 'quality education is judged by broader social criteria. At this level, it can simply be said that, everyone can claim to be an expert or a professional in education and each person judges each level of the education system in terms of the final goals and values we set for the learner, the society, the communities, the market place and the country at large.

A very carefuland in depth studies of each of the above three levels at which quality education is judged, will reveal the facts that quality education is generally measured in terms of the extent/level/degree to which the education system is able to achieve the philosophical concepts, aims, objectives, goals and values set for a given people, society, community and or a country. Therefore, it is both very misleading and dangerous to think of quality education only in terms of system of the control of the education system or the type of curriculum in operation or supply and distribution of educational resources or the ability of the education system to produce certificated people as opposed to educated people (Nnadi, 1996).

One of the elementary phenomenon, which characterized most colonized countries of the world, is the fact that our education and political system did not grow out of our cultures which perhaps explains why we often find it difficult to clearly define and assess the performances of our education systems relative to quality and standard in education, this is why even today, most of our planners often hold the view that the essential functions of our education system is to produce the high and middle level manpower with their knowledge which would permit the rapid expansion (as opposed to growth) of mainly modern and largely urban sectors, and that the most inappropriate way of doing this is through the rapid expansion of our formal education systems at all levels and the rapid production of certificated people particularly at. Degree and Diploma levels Lidani (1995). People often talk about (quality and standards in education and therefore the contributions of education to national development, without specifying the kind of development, the kind of education; for whom both the education and the development intended and at what levels and stages of development and where. This is perhaps the reasons why there is often confusion and problems in assessing the quality of our education programmes. This is perhaps the reason why standards of education, are now in deep trouble with regard to assessing the true qualities, efficiencies and the performance Anni (1995). Combs (1968) warned that, a developing country could land into deep trouble by slavishly adhering to the educational forms and ritual of the industrialized countries in a context where they simply do not fit.

Unless we come to terms with the facts that standards of education is not the same with the qualities, efficiency, and performance of the education systems; unless we come to terms with the facts that standards and or quality education cannot be defined in a simplistic, narrow and materialistic terms like capital development, examination passing, welfare services and facilities for staff and students., etc, our education system will continue to operate and function on the concepts of quality measurement and value judgments relative to education which can only promote and encourage qualification inflation; examination malpractices, total dependence on the government, for the provision and maintenance of educational facilities; high premium on welfare services for teachers and students; and total dependency on foreign goods and services for the education sector, and the production of certificated people as opposed to educated people (Nnadi, 1996).

Performance in Technology Education

Standards of education are formulated and stipulated in form of policies, laws, rules and regulations which are prescribed for the functioning and operations of system of educational programmes. They are prescribed measures for the realization of educational objectives. Quality of education, on the other hand, is measured in terms of the extent to which education system is able to achieve the philosophical concepts, aims, goals and objectives set for a given society. Performance in education refers to the extent to which standard and qualitative education have been achieved such that the products of such standard and qualitative education system perform creditably thereby achieving the philosophical concepts, aims, goals and objectives set for a given society (Nigeria) in terms of academic excellence and self-employment generation among others. Therefore, performance in education (generally) and effective performance of end product (graduates) (in particular) in the area of academic excellence and self-employment generation and technical breakthrough are critical elements in the assessment of the extent to which educational goals have been achieved.

At this juncture, let us narrow down to the goals/objectives of Technology education at sub-professional levels (that is National Certificate in Education Tech) and ordinary National/Higher National Diploma in Technology Education) as well as the curriculum of senior secondary school in Sciences and Mathematics, and technical subjects. This means that the aims/objectives of technology education at this level need to be clarification, the National Policy on Education (2004) cited the aims of technology education earlier enumerated in this paper.

Specific references is also made here to provision of WAEC syllabus with particular references to SSSC syllabuses in sciences, and Arts/Mathematics. Pursuant to these provisions, government has advanced precise definitions of minimum standard in vocational education and of course the precise provisions of WAEC syllabus is prescribed by WAEC. Specific examples are standards prescribed in relevant pages of WAEC syllabus in sciences and vocational subjects particularly

at the SSSC levels. "Standard" in this sense, is used to mean, "something (indices) used as a basis of measurement and for judging quality or level of excellence aimed at required, or achieved (Nnadi 1996). What is meant here is that educational standard are fixed indices and stipulated in the form of policies, laws, rules and regulations prescribed for the functions and operations of a system or programme. Government has also established certain superintending agencies to ensure compliance with the above-mentioned standards. Of relevance are the National Commission for Colleges Of education (NCCE) for National Certificate In Education (NCE) technology Education and W.AEC for SSCE/GCE.

The existence of these bodies, the clear specification of standards and the fixity of standards, as conceptualized,, have combined to negate any tendencies for standards to fall in technology education and SSCE in spite of the depressingly high incidence of instability and other socio-economic and political upheaval within the Nigerian policy. Where the above-mentioned tensions have taken a major toll is in the area of poor quality of educational services in Nigeria, which in turn manifest in poor performances of end products (students) (Nnadi, 1996).

There is certainly, an interface between standards in education on the one hand and performances in education and the quality of products of an educational process on the other. But the distinction between the two is important and must be addressed at this juncture. According to Nnadi(1996) "when a product or the output of a system fails to attain the highest limit of prescribed standards, it does not mean that the standards of the system is low or average or poor, but that the quality of the operations and operators of the system can be said to be low, average or poor hence the poor performance of end product relative to prescribed standard. The difference between standards and quality or performances emanates from the fact-that standards do not rise or fail, are relatively fixed and valid over a long time period, and provide a framework for uniform practice in a system as well as overall acceptability and marketability of the product of a particular programme. While quality on the other hand can fluctuate up and down easily on account of socio-economic, political and other social upheavals (Nnadi, 1996), thereby affecting performances of end products (students).

In final analysis, standard of education in Nigeria, particularly technology education among others, has risen. The quality of educational service/operation has fallen drastically. The poor quality of educational services has negatively affected effective performances of end products (graduates).This is why Ulifun (1990) laments on the poor quality of technology education in Nigeria. In his paper titled a training and development of technical teachers in Nigeria, he states that "the technical teacher lacks the usable skills for generation of self-employment.

"From observing, it is obvious that the current technical teacher education services are insufficient hence the skill acquired by a technical teacher trainee is paltry. Trainers tend to pay more attention to methods (Pedagogy) than is paid to matter (Skill of knowledge) which is why the technical teacher knows more methods than the skill he is supposed to impact (Ulimfun, 1990).

According to Nnadi (1996), specific manifestation of the inimical effects of poor quality technology education in Nigeria takes the form of certificate racketeering, qualification inflation, and existence of crop of technologically knowledge but in disciplined diplomat and graduates. Hence, the need for qualitative technology education for sustainable national development. The question at this juncture remains as to what constitutes qualitative technologies education for sustainable national development.

Qualitative Technology Education and National Development

The measurements in respect of quality education and value judgements relative to education confirm in positive terms that:

i. Education, generally, and technology education in particular are directly related and relevant to the basic needs of the communities, the country and individual citizens of the society.
ii. Through education and technology education, every individual is able to contribute in the social, political and economic development of his or her society.
iii. Manpower plans and technology education plans are unique such that human and economic resources wastages are minimized or minimum.
iv. Technology education system's INPUT-OUTPUT measures is able to give rise to productivities and efficiency in all sectors of the economy and society.
v. Education is able to give the nation a status of self-reliance.
vi. The consumers of educational system see Diplomas, Certificates and Degrees awarded by the official authorities and institutions to have the same values and significance.

Moreso, educational efficiency and effectiveness in terms of policy formulation and implementation process must embrace. Standard, quality and performance and generally measured in terms of the extent/level/degree to which the education system is able to address and achieve the philosophical concepts, aims, objectives, goals and values set for a given people, society, community and or a country. In terms of technology education, these philosophical concepts, aims, objectives and goals are in capsulated in the National Policy on education and Decree No. 16 of 1985, among others. It is the opinion of this paper that quality, standard and performance in education generally and technology education in particular have not been embraced holistically and simultaneously, among others, to achieve a sustainable national development, hence the imperatives of qualitative technology education for sustainable national development; as against the current practice which could be qualified as quantitative educational system.

Using the field of Office Technology and Management (OTM) as a case in this article, the current training programme of OTM has not holistically and

simultaneously embraced quality, standard, and performance on its overall implantation process, hence, it failed to fall in line with the six attributes of qualitative technology education earlier enumerated above. Presently, many organizations are recognizing the importance of digital skills for graduates to fit into modern offices in order to have a decent work. Burton (2021) stated that digital skills make an organization a freer and simpler place of work. A lot of organisation's works can now be done from home. It is more important than ever for graduates of Office Technology and Management (OTM) to possess range of digital office skills which will enhance their employment potentials. In support of this view, Berger and Frey (2016) pointed out that the kind of digital skills required of graduates of higher institutions change over time in line with changes in technologies. Berger and Frey further asserted that as new technologies emerge, narrow technical skills become insufficient for more emerging jobs while demand for higher level digital offices skills increase.

Digital skills needed by graduates in the Office Technology and Management in the modern workplace to give a decent work can include: Information and data skills, digital safety skill, cloud computing skills, word processing skills, spreadsheet skills and internet skills; and Office Technology and Management is an aspect of Business education programme which is very relevant in training and development of students, inculcate appropriate modern office skills, values, knowledge, attitudes and work competencies to its recipients to meaningful life in the digitalized world of work. Amiayee (2016)stated that the traditional educational environment is not suitable for preparing learners to function or be productive in the workplace of todays' society. Therefore, educational institutions, that fail to incorporate new digital technologies skills cannot seriously claim to prepare students for life in the 21st century digital skills knowledge driven economy. Anderson and Jusufranci (2014) opined that 21st century students will sell to the world, work for international companies, compete with people from other countries, manage employees from other countries, collaborate with people all over the world and solve global problems.

The global relevance of digital office skills in the 21st century digital economy cannot be overemphasized. According to Burton (2016), digital age is expanding into areas of our lives, and it is not just those who work in information technology that will need to be alert of this change. Therefore, having digital skills that are highly valued now and shall continue to be in the future in the modern workplace, is very vital. According to UNESCO (2018), such skills enable people to create and share digital contents, communicate and collaborate and solve problems for effective and creative self-fulfillment in life, learning, work and social activities at large, for overall national development. For OTM workers to be able to perform their duties and make meaningful contributions to the success of the national economy, they also need to acquire the relevant digital office skills for decent work.

New technologies in Business education have also challenges to posed OTM

students globally. Series of studies conducted by various researchers revealed that schools do not adequately embrace the acquisition and utilization of new instructional technologies in Business education on time due to the cost effectiveness of establishing the programmme. The major challenges affecting the acquisition of digital office skills for Business education (OTM) graduates while in school are numerous. According to Clinebell and Clinebell (2015), business education is in a stage of turmoil. They posited that recent studies conducted indicated that Business education (OTM) inclusive is facing various issues ranging from lack of relevance to business practice, shortage of qualified faculty (lecturers), with terminal degree and lack well qualified digital skills.

Buttressing the above assertion Njoku (2015) observed that the absence of proper funding does not only hamper implementation of OTM programme, but also affect the quality of graduates, the operational mode of the institutions, the attitudes of teacher and infrastructural development of the institution. The economic challenges of the country affected the subvention granted by the government to institutions for running of highly capital intensive OTM programmes (Mshelia et al. 2023).

Severe power outages is another economic challenges that has great impact on using technologies in Business education. Without constant power supply, the OTM equipment such as computers, power points among others, cannot be used. As a result of this, the courses may be taught theoretically. Inadequate facilities to cater for large number of students in OTM is another issue. The computer laboratories and related supporting equipment are not enough, hence the student's ratio outnumbers the equipment. Poor maintenance culture of government property or facilities is another disturbing challenge in teaching and learning of OTM courses.

Therefore, it is the opinion of this paper that quality, standard and performances should be holistically and simultaneously embraced in the overall implementation of educational programmes in Nigeria, generally and Office Technology and Management (OTM) in particular through addressing of the observed gaps in overall implementation of Office Technology and Management programme, among others.

Conclusion

Education is defined as a process of acquiring knowledge, skills, values, beliefs and habits for the purpose of self-actualization of the learner and wellbeing of others and the society. Curriculum structures are deliberately designed as a vehicle to drive educational process and is drawn based on the goals and philosophies of a given people. The philosophy of any educational programme generally expresses the general beliefs, attitudes, feeling and ideals underlining the establishment of such programme. Accordingly, the National Policy on Education outlined the philosophy and goals of education in Nigeria as a government way of realizing that part of the national goals which can be achieved using education as a tool. One of the

innovations adopted to actualize educational goals is the introduction of vocational and technical education. However, technology education was adopted as a way of resolving issues of conceptual perspectives in vocational technical education. The aims and goals of technology education were enumerated in the National Policy on education and Decree No 16 of 1985. Unfortunate, little or nothing has been done to implement the provisions of the policy and Decree. To remedy the above perceived gap in the quality of vocational and technical education delivery process, there is need to reconcile and resolve the contentious issue of quality, standard and performances in education generally and technology education in particular; hence, the concept of quality, standard and performances were discussed as instruments for qualitative technology education for a sustainable national development. Finally, some elements for qualitative technology education for national development were identified. However, the poor quality of implementation process of technology education goals as encapsulated in the National Policy on education and Decree No.16 of 1985, among others, which resulted in poor quality technology education graduates need to be addressed.

Suggestions

Based on the views expressed in this paper, the following opinions were suggested:

1. Quality technology education or education relevant to societal needs is generally measured in terms of the extent to which the education system is able to achieve the philosophical concepts, aims, objectives, goals and values set for a given people or nation. The six points attributes which quality education or education for self-reliance possess are perhaps lacking in Nigeria education, including technology education. There is the need to address these gaps and properly implement provision of technology education objectives to be able to enhance national development.
2. While the standards prescribed by various regulators in Nigerian education maybe relatively stable and up to date for reasonable length of time and always reviewed in line with current realities, the quality of implementation of education process generally and technology education in particular left much to be desired with its negative effects on the quality of end products (graduates). Therefore, there is need to harmonise the quality, standard and performance in technology education to be able to produce quality and productive technology students or graduates for sustainable national development.
3. Necessary materials and human resources as well as conducive learning environment should be provided and in the right proportions to enhance qualitative technology education processes for national development, for instance, in the field of Office and Technology and Management (OTM), among others.

4. Technology education for national development should be the priority for the government rather than political, religious and ethnic considerations and corruption ridden administration which are the bane of national development.
5. Efforts should be made by the government and organized private sectors to strictly deliver or implement the technology education in line with its aims and objectives as encapsulated in the National Policy on Education and Decree No. 16 of 1985, in order to realize national development.

References

Akinwale, O.S. (2015). Sociology of education. Owerri: Yomath publishers.

Anderson, K. and Jusfunranci, J. (2014). Competitiveness in higher education in terms of the level of students. Bench Journal of Education (9)

Anliaya, A.O. (2016). Availability and utilization of new technology for teaching Office and Technology and Management in Delta state Polytechnic. *Nigeria Journal of Business Education* (3) ,

Beeny, C.E. (1996). The quality of education in developing countries.

Burton, (2021). The importance of digital skills in modern workplace. https//www.skillsyouneed.come/rhubarb/digital-skills-modern-workplace.html

Enamali, J.D. (2010). Education and training for industrialization. Stirling-Horden Ltd. Benin City: Jattu-Uzairue.

Federal Republic of Nigeria (2004). National policy on education. Lagos ATMAN press.

Kanno, T.N., Obih, S.O., Okoro, I.F., &Ukaegbu, M. (2017). Curriculum theory and practice, A Compass Meybiks Nig. Publishers, Amakohia.

Lidani, Y.B. (1995). Falling standard of education in Nigeria: A keynote address presented at the seminar on falling standard on education in Nigeria – Potiskum.

Maduka, B.C., Njoku, C.O.; Chiekezie, I., & Okafor, O. (2019). Basic concepts and practice of vocational guidance. Owerri: Polly Amadi Publishers.

Mshelia, A. G. &Orheruata, J.E. (2023). Digital skills required of office and technology and management graduates for global relevance and decent work in civil service in Borno State. *Journal of Business Education*, 10(2),

Njoku, C. U. (2015). Critical indecent in the Nigerian Educational system: challenges to Business educators. *Nigerian Journal of Business Education*, 2(2)

Nnadi, K. U. (1996). Mission of technology education in Nigeria: need for a stabilization policy. Paper presented at the national conference organized by NCCE 21-25

Okoro, I. F., Emenyeonu, B.C.; &Akaraonye, J. (2012). Essentials of curriculum implementation. Owerri: Doming Press.

Osuala, E. C. (2004). Foundations of vocational education. Enugu: Cheston Agency Ltd.

Ulinfun, F.E. (1990). Training and development of technical teachers for Nigerian technical institutions-issues and problems. *Business Education Journal 2*(1).

UNESCO (2004). Foundations of vocational education: Enugu: Cheston Agency Ltd.

UNESCO (2018). Digital Skills Critical for Jobs and Social Inclusion. Retrieved from http://en.unesco.org/news/digital-skills-critical-jobs-and-social-inclusion

UNESCO (2018). Global education. Monitoring report: migration, displacement and education