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QUALITY ASSURANCE IN VOCATIONAL AND TECHNICAL  
EDUCATION TEACHER TRAINING PROGRAMME FOR  
SUSTAINABLE TECHNOLOGICAL DEVELOPMENT IN NIGERIA

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**ABSTRACT**

*It is acknowledged that no educational system can rise better than the quality of teachers who run and operate it and more importantly, the importance of Vocational and Technical Education (VTE) to national development are more reasons why those who are charged to deliver it must not fail. The extent to which a teacher is able to bring about all expectations is dependent on the quality of training she received during the training and this calls for quality assurance in VTE teachers training programmes. Some of the issues considered in this write up include among others, why quality assurance in VTE teachers training programmes, how to actualize quality assurance in VTE teachers training programmes and implications of quality in VTE teachers training programmes. To achieve this, the following recommendations were made among others includes: VTE teachers training programmes should adequately expose students on industrial practices, Facilities should be provided for VTE teacher training programmes to enable them acquire relevant skills to be passed to students after graduation and teachers in training should be properly trained on entrepreneurial skills to enable them pass it to others.*

**Introduction**

The development of any nation is critical to the technological and economic survival and vibrancy of that nation. This holds particularly true for developing nations like Nigeria, who are still grappling with chronic factors like unemployment and under employment which lead to economic frustration and poverty among significant percentage of the citizenry (Uwaifo, 2009). For

nation to be saved from the menace that is pointing danger on the existence of people there is a need for Vocational and Technical Education (VTE). Uwaifo, further advocated that VTE is a multifaceted, multi-disciplinary and pragmatic field of study, is aimed at equipping the individuals with requisite VTE literacy skills, which will enhance their relevance and functionality in the society. As a result, it plays a vital and

indispensable role in the development of the society.

FRN (2004) recognizes VTE as that part of the total educational system which leads to the acquisition of practical and applied skill and scientific knowledge. The national policy of education attaches much emphasis to VTE, for it is the nation's spring board for the acquisition of relevant skills for technological and economic development with regards to the demand for skilled manpower. The policy maintained that VTE is designed and incorporated in the three stages of education with a view to meet the nation's need for skilled manpower and support the economic state of individual students and the nation as well. Okorie and Ezeji (1988) emphasize that when young people are equipped with requisite skills the following are guaranteed: financial, and psychological security, employers receive productive workers, society continuously receive supply of skilled labour and quality goods, thereby alleviating poverty.

The production of quality skill manpower resulted from classroom as teachers formed a pivot in which the production of quality skill manpower can be realized. Afe (2002) observed that the challenge of teacher training appears to be the most daunting challenge facing the education system in general. This has been observed by

researchers who have reiterated that out of all the educational problems that beset the Africa continent today, none is as persistent or as compelling as the one relating to the training of competent teachers who are directly or indirectly bound to influence the quality and quantity of services provided by all skilled personnel, as poorly trained teachers tend to produce their own kind. It is sad to note that the quality of technology teachers produced from training programmes have failed short of expectation of producing VTE graduates with right skills needed for technological and economic development of the nation. This is clearly seen from the output of the graduates. Therefore, it has become necessary and timely to emphasize on quality assurance of technology teachers' training programmes for sustainable technology development in Nigeria.

#### **Vocational and Technical Education Teachers Training Programmes in Nigeria**

Training is defined as bringing of a person or animal to a desired degree of proficiency in some activities. Training is the process of imparting specific skills which will equip the individual or group of people to perform specific jobs effectively, efficiently and diligently. Training consists of imparting not only cognitive skills and dexterity but also in

developing the requisite values, attitudes and behaviors.

VTE teachers training programmes was setup to train competent teachers who will be capable to impart the knowledge of VTE to the learners in various fields, such as Agricultural Science, Home Economics, Business Education, Auto-Mechanics, Electrical and Electronics, Metal Work, Wood Work, Building, Computer Education and others. VTE teachers are trained in various higher institutions of learning such as Colleges of Education (Technical), Polytechnics Colleges of Education and Universities that run VTE teacher training programmes.

The introduction of 6-3-3-4 system of education and the subsequent emphasis on VTE gave birth to the establishment of Federal Colleges of Education (Technical) in Nigeria. These institutions are under the auspices of National Commission for Colleges of Education (NCCE). The objectives of NCCE and consequently the objectives of FCE (T) are geared towards the production of qualified technical teachers and practitioners of technology capable of teaching Introductory Technology, Business Education, Home Economics and others in Junior Secondary Schools (JSS) and technical colleges as well as inculcating scientific,

technological, attitudes and values in the society. In order to have sufficient number of graduates of this programmes some polytechnics offer NCE Programmes in their institutions. The pattern and the curriculum of this programme is the same with what is obtained in Colleges of Education. Some Universities have the department of VTE with desire to produce quality VTE teachers competent in psychomotor, cognitive and affective skills.

### Concept of Quality Assurance

The word "Quality" may mean different things under different situations. It is defined as, a measure of suitability for a specific use or purpose. This means that the quality of any given thing is definable only when the intended use is defined (Paiko, 2005). Quality is defined as the totality of features and characteristics of a product or a service that bear on its ability to satisfy stated or implied needs. Assurance can be defined as the act of assuring or the state of being assured. It can also be seen as a statement or indication that inspires confidence; guarantee. The word assurance, on the other hand, indicates confidence –in other words, an attitude. Merrain (2009) cited in Ogbu (2009) simply stated that quality assurance is a set of activities intended to ensure that the products, goods or services satisfy customer requirements in a systematic and reliable fashion.

Ogbu (2009) stated that quality assurance is committed to critical examination of the worth of educational programmes/activities and the dissemination of the best practice in instructional delivery and management of education generally.

### **Why Quality Assurance in VTE Teachers Training Programmes**

Before examine the need of quality assurance in VTE teachers training programmes. We need to understand the concept of teaching and teacher. The goal of teaching is to improve student learning by maximizing opportunities for learning in every lesson. Kalusi (2005) defined teaching as a way of giving instruction to somebody or causing somebody to know or be able to do something. It is also regarded as a skill for promoting performance in learning. Okon (2003) view it as a conscious and deliberate effort by a mature or experienced person to impart information, knowledge, skills and so on, to an immature or less experienced person with the intention that the latter will learn or come to believe what he is taught on good ground.

Nwosu (1995) defined professional teacher or quality teacher as a trained person who is actively involved in the teaching vocation, and who displays a high knowledge of teaching behaviour including the social, cultural, political, physical

and the intellectual aspect of teaching and the world around him. Nkom (2005) affirmed that teacher education obviously is the central to teacher quality. It is through this means that the collective experience towards teacher quality including research and practice covering different facets of teaching can be brought to the attention of prospective teacher. Momoh-olle (2005) lamented that if a teacher makes a mistake generations yet unborn may suffer the consequences because the mistakes of the teacher are more devastating to the future generation than the mistakes of the member of any other professions. He makes an instance, that an average teacher would affect directly or indirectly the lives of as many as 20,000 people before his retirement.

It is believed that 'no nation can rise above the quality of its education system'. Based on this self evident truth, the national policy formulators recommend, as a priority, the training of those responsible for facilitating the education of Nigerians in the development planning process. As observed by Jegede (2002), the teacher training system in Nigeria, has failed to adhere to the provisions of the National Policy on Education that teacher education shall continue to take cognizance of changes in methodology and in the curriculum, and that teachers shall

be regularly exposed to innovations in their professions. Contributing to this debate, Okebukola (2005) opined that in times past the teacher as well as his/her education did enjoy some pride of place but teacher education in Nigeria and indeed education generally in the last two decades had been characterized by incessant instability, not unconnected with attempts by practitioners in the field to better their lot. When it comes to quality in education, one of the first issues is the training of teachers as it is a common belief that the most important factor to determine the quality of education is the teacher. It seems essential that the teachers who will be employed in the VTE should be involved in a well qualified teacher training process to meet the needs for the labour force qualitatively and quantitatively. To be able to provide qualified human resources for a society whose target is quality through efficiency depends on the training of the candidate teachers at the vocational and technical teacher training facilities in such a way as to equip them with values and attitudes of the modern age.

According to Uwais (2009) education unlocks the door of modernization but it is the teacher who holds the key to the door. Drawing a comparative situation, a nation that is in quest of technological development should turn to the schools for solution.

Teachers are the hub or pivot on which any successful educational programme revolves and if teachers perform their task dutifully, there will certainly be a myriad of new technologies in the future of vocational education. Most present day teachers in Nigeria will parade antiquated knowledge in science and technology. Consequently, to perform successfully as teacher of VTE constant training and re-training programme is recommended to continually keep them abreast with the changing dynamics in teaching and learning modalities.

A study conducted by Okebukola (2005) revealed the weakness that education graduates exhibit after graduation. A listing of these weaknesses includes: (1) Inadequate exposure to teaching practice. (2) Poor classroom management and control. (3) Shallow subject - matter knowledge. (4) Poor computer skills. (5) Inability to communicate effectively in English. (6) Lack of professionalism (launching pad to greener pastures). (7) Lack of self-reliant and entrepreneurial skills. (8) Poor attitude to work.

The effects of these weaknesses on the part of education graduates teacher have serious negative implications on the cognitive performance, skills acquisition and affective skills of the students. If

these problems are left unattended to, it will cause a serious drawback to nation economic and technological advancement.

### **How to Actualize Quality Assurance in VTE Teachers Training Programmes**

In view of the weaknesses exhibited by education graduates in which VTE teacher training graduates are one and the expectation of people in VTE teachers as one of the key players in the development of skilled manpower which will contribute to economic and technological development for the sustenance of the nation. Therefore it has become necessary to ensure quality assurance of the VTE teachers training programmes through the following ways: (1) Admission requirement policy, (2) Adequate facilities (3) Training in ICT skills (4) Inculcating affective work skill (5) Acquisition of entrepreneurial skill (6) Enhancement of pedagogical skill (7) Emphasis should be on teaching subjects (8) Effective micro and teaching practice (9) Exposure to industrial practices.

**Admission Policy:** Admission into VTE teachers training programmes should be strictly by five 'O' level credits in NABTEB/SSCE/NECO. No attempt to be made to

admit student without five 'O' level credits. English Language and mathematics must be at credit level. During the University Matriculation Examination (UME) and Post UME the cut-off point of the candidates to VTE teachers training programmes should not be lower to other profession. The programme should not be a dumping ground for students with low intelligent quotient (I.Q). Admission of N.C.E candidates must possess minimum of merit pass in education and teaching subject(s) with five 'O' level credits passes in English Language, Mathematics, teaching subject and other related subjects.

Department should limit or avoid number of sandwich/part-time students and affiliation programme. In view of that, Okebukola (2005) state that it has been found that over 60% of the poor quality teachers in secondary school system are trained through sandwich/part-time and affiliation programmes.

**Facilities Improvement:** Facilities can be defined as all the resources which may be

used by the teacher/learner in isolation or in combination, formally or informally, to facilitate the acquisition of knowledge, skills and moral (Inyangi, 1988). Facilities in this study are group into three, instructional facilities, training equipment and physical facilities. VTE as a discipline that lays much emphasis on skill – acquisition cannot function well without adequate provision and use of facilities like books, equipment, tools, materials, workshop and laboratories. This is because skills are not acquired in the air or with empty hands.

This suggests that proficiency and subject mastery can achieve through practice, by manipulating available instructional material productively. Also when the learner is allowed access to use of instructional material, learning is sustained because, more permanent impression is created in the learners mind than verbal instruction give out as applied during use of lecture method. The VTE teachers training programmes should be well equipped with facilities to

enable the teachers in training to acquire needed skills.

**Pedagogical Skills:** These are the practices and refinements of presentation, which teacher employs to make instructions more effective, more interesting and easier when using a specific method for a lesson unit. Ma'aji (2003) observed that for effective teaching of any skill activities, methods and materials play an important role in facilitating the learner's achievement objectives. Skill acquisition generally requires specialized instruction techniques in order to achieve maximum objectives. Assisting learners to learn is the ultimate goal of any instructional activity in both formal and informal education. In fostering learning in the classroom teachers bring the learners in close contact with the curriculum contents using appropriate methods and materials. Methods play key role in ensuring effective, interesting and stimulating learning. In the same vein, teaching methods may also hinder learning Ukoha and Eneogwe (1996).



**Information and Communication Technology (ICT) skill:**

ICT is defined, as a "diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information."

These technologies include computers, the Internet, broadcasting technologies (radio and television) and telephony. UNESCO (2002) Findings of studies of innovation in educational contexts around the world show that many educational innovations ultimately fail because too little effort or too few resources are devoted to preparing teachers for the innovation. ICT enables teachers to become active and creative, able to stimulate and manage the learning of students, as they infuse a range of preferred learning styles and uses of ICT in achieving their educational goals.

ICTs greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational systems. Improving the quality of education and training is a critical issue, particularly at

a time of educational expansion. ICTs can enhance the quality of education in several ways: by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher training. There is ample evidence that teachers are vital players in any initiative aimed at improving teaching and learning processes. Moreover, ICTs at schools will have little impact if teachers are not actively involved in all phases of their integration to the curriculum. To actualize this, the teachers training institutions should impart necessary ICT skills to their students to enable them transfer it to others.

**Affective Skills:** One of the main purposes of VTE programme is to help individual students to develop desirable and affective work attitudes, acquire the necessary knowledge and skills of an occupation to enter and progress in the occupation. FGN (2004) noted that measurement of affective behaviour is currently receiving emphasis in Nigerian schools, for

example the Federal Government of Nigeria in the national policy gave two affective objectives of Nigerian education. These are; the inculcation of national consciousness and national unity and the inculcation of the right type of values and attitudes for the survival of the individual and the Nigerian society. This is because education should lead not only to the acquisition of cognitive and psychomotor skills but also to the development of appropriate attitudes.

Atsumbe and Saba (2008) serious advocating the need for VTE to teach affective work skills, stressed that any education that does not promote the right values and attitudes to work, life and society is of limited values. The teaching of appropriate values, attitudes and interest should form part of well organized VTE programmes.

VTE educators must be continually vigilant and concerned about their future teachers because teachers mould young minds and prepared them for future. Laft & Suzuki (1990) outline affective skills that are important for VTE

teachers on training to enable them pass it to learners. The skills include; (1) punctuality (2) honesty (3) appropriate use of time (4) initiative (5) co-operative (6) friendliness (7) self confidence (8) dependable (9) reliability (10) ability to listen and carryout instructions (11) ability to follow rules and regulations.

### Entrepreneurial

### Skills:

Entrepreneurship can be conceptualized as the ability to see opportunity available to bring about changes by starting a new organization or revitalizing existing organization in response to indentified opportunities and need of the society (Etonyeaku, 2009). Salami (2004) stated that entrepreneurship occurs when an individual develops a new venture, or unique ways of giving the market place a product or service. Salami, stressed further that, the rationale of entrepreneurship education is to prepare technology education graduates with quality and number of entrepreneur knowledge, attitudes and skills needed to lead the future. The skills tend to reduce unemployment in

the society and self employment will be appealing goals for students if the programme is implemented properly. If the VTE is to emphasize entrepreneurship education, the teachers both the pre-service and in-service ones, at various levels of education should be adequately equipped with the entrepreneurial knowledge, attitudes and skills which they are expected to teach.

**Exposure to Industrial practice:** VTE teacher training programmes exposes students to industrial practice through Students Work Experience Scheme (SIWES). SIWES is a practical skill development programme designed to expose and prepare students of technology and science to real life work situation and enhance the development of needed skills in industries. Atsumbe (2006) observed that SIWES programme which was designed to familiarize trainers with the world of work and give them required skills necessary for employment or self-employment, is fast degenerating into mere formality. Hence there is need to improve SIWES

programmes for proper skills acquisition in industries.

### **Implications of Quality Assurance in VTE Teachers Training Programmes**

Imperative quality assurance in VTE teacher training programmes has positive implications to the economic and technological development of the nation. Since VTE teachers are implementers of curriculum of VTE in all level of educational system, in other word without VTE teachers VTE subjects cannot be taught. Effective training of VTE teachers guarantees production of quality teachers which will in turn teach VTE students to acquire necessary skills to be employable or self employ.

### **Conclusion**

VTE teacher training is an educational exposure that assists interested individuals to acquire manipulative skills in their chosen occupations. Therefore, for VTE programme to be functional, the need for well trained VTE teachers becomes very crucial. The VTE training programme can achieve desired objectives if there is quality assurance in teacher training programme. Thereby give VTE programmes at all level of educational system to achieve effectiveness.

### Recommendations

The following recommendations were made based on the above discussions:

1. The admission requirement policy of VTE teacher training programmes should be based on five 'O' level credits in English Language, Mathematics, teaching subject(s) and other related subjects.
2. Facilities should be provided for VTE teacher training programmes to enable them acquire relevant skills to be passed to students after graduation.
3. VTE teacher training programmes should adequately expose students on industrial practices through SIWES and SWEP.
4. Teachers in training should be properly trained on entrepreneurial skills to enable them pass it to others.

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